Final Evaluation of

SWALIM phase II

(Somalia Water and Land Information Management project)

GCP/SOM/045/EC

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Final report prepared by

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Contents

Acronyms

AGRIS	International information system for the agricultural sciences and technology
AMESD	African Monitoring of the Environment for Sustainable Development
ARDOPIS	Agricultural Rehabilitation and Diversification of High Potential Irrigation Schemes in Southern Somalia
AWD	Acute Watery Diarrhoea
CEFA	
CISS	Coordination of International Support to Somalia
CMC	Coordination and Monitoring Committee
CTA	Chief Technical Adviser
DEPHA	Data Exchange Platform for Horn of Africa
DIMU	Data and Information Management Unit
EC	European Commission
ECHO	European Commission Humanitarian Aid Office
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAOR	FAO Representation
FAS	FAO Field Accounting System
FEWSNET	Famine Early Warning Systems Network
FSAU	Food Security Analysis Unit
FSRD	Food Security and Rural Development Sector Committee (SSS)
FWG	Flood Working Group (IASC)
GIS	Geographical Information System
GPS	Global Positioning System
HDI	Human Development Index
HRG	Humanitarian Response Group
IASC	Inter-Agency Standing Committee
ICPAC	IGAD Climate Prediction and Applications Centre
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Persons
IGAD	Inter Governmental Authority for Development
IMCC	Inter-Ministerial Coordination Committee
INGO	International NGO
INGO	International Non-governmental Organisation
IT	Information Technology
JNA	Joint Needs Assessment
JPC	Joint Planning Committee
MOU	Memorandum of Understanding
NDVI	Normalised Difference Vegetation Index
NERAD	Somaliland's National Environment Research and Disaster Management Authority
NGO	Non-Governmental Organisation
NRCB	FAO Climate Change and Bioenergy Unit
NRCE	FAO Environmental Assessment and Management Unit
NRLA	FAO Land Tenure and Management Unit
NRLW	FAO Water Development and Management Unit
PACSU	Project Assistance, Capacity Building and Supervision Unit

PBEE	FAO Evaluation Service
PSC	Project Steering Committee
PTF	Project Task Force
RBM	River Basin Management
RDP	Reconstruction and Development Programme
RFE	Rainfall Estimation
SACB	Somalia Aid Coordination Body
SIDA	Swedish International Development Agency
SIMAC	Somalia Interagency Mapping & Coordination
SSS	Somalia Support Secretariat
SWALIM	Somalia Water and Land Information Management
TCE	FAO Emergency Operations and Rehabilitation Division
TCES	FAO Special Emergency Programmes Service
TCP	Technical Co-operation Project
TGF	Transitional Federal Government
TOR	Terms of Reference
UIC	Union of Islamic Courts
UN	United Nations
UNDG	United Nations Development Group
UNDOS	United Nations Development Office for Somalia
UNDP	United Nations Development Programme
UN-HABITAT	United Nations Human Settlements Programme
UNHAS	United Nations Humanitarian Air Service
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UN-OCHA	UN Office for the Coordination of Humanitarian Affairs
WASH	Water, Sanitation & Hygiene Sector Committee (SSS)
WFP	World Food Programme of the United Nations
WSISC	Water, Sanitation and Infrastructure Sector Committee (SACB)

Executive Summary

Since the collapse of the central government in Somalia, the natural resources of the country have largely been unprotected and are diminishing. Population growth, climate change and continued insecurity are forecast to make the situation worse. The need for structured and accessible information to support sustainable land and water resource management has become critical in Somalia over the past 16 years. The initiative to develop a Somalia Water & Land Information Management System (SWALIM) materialised in 2001 through a concept paper funded by UNDP and an establishment phase in 2002 funded by Cooperazione Italiana. Two project phases were implemented from 2003-04 and 2004-07 respectively with funding from the European Commission and co-financing from UNICEF in the second phase. Additionally the SWALIM project team assumed responsibility for the "Support to the Sustainable Management of the Shabelle and Juba Rivers in Southern Somalia" from August 2006.

Relevance of SWALIM (phase II)

Critical to relevance is the **project design**. The purpose of SWALIM phase II (October 2004 to December 2007) was to see *water and land policies and interventions improved* through capacity-building, the development of baseline data and customised information products. This was ambitious and establishes a commendable goal, but was neither achievable nor feasible in the project time-frame given the lack of organised information in the land and water sectors at the start of the project and minimal government capacity. Furthermore, the designed project activities could not fully allow for the success of the project results because the activities lacked i) an understanding of the diversity and priorities of the information users, and ii) mechanisms for their engagement, and therefore ownership of the key stakeholders.

However, despite weaknesses in the logic of the project document, the SWALIM team has increasingly adopted a consultative process during phase II, taking into account the views of stakeholders particularly in terms of information access and dissemination. The design of phase III does to some degree incorporate mechanisms to better integrate stakeholders' needs.

Assessment of Project Implementation (phase II)

Despite the very challenging context of Somalia and delays in personnel recruitment, SWALIM has fulfilled the project **activities and results** to the following levels of achievement:

Result 1: SWALIM has *improved access to and dissemination of information products and services* by reaching critical levels of expertise and standards for the collection, organisation, repository and access of baseline geo-spatial data.

Result 2: SWALIM has produced *essential baseline information* and has used the limited resources available to effectively prioritise its geographic focus. However, the *involvement of stakeholders* has only partially been achieved because of difficulties to link with government (defined as the primary beneficiaries) and to a lesser degree with aid and humanitarian agencies (considered secondary beneficiaries).

Result 3: SWALIM has achieved limited results with respect to *enhancing the capacity of personnel in the development and use of information products and services* and consequently only minimal capacity has been developed and this is largely focused in the area of data collection.

The SWALIM team and **project management** is based in Nairobi because of the current political and security situation in Somalia. Delays in recruitment of project staff (including the CTA) and appropriate consultants resulted in significant delays to the project which the team

have done remarkably well to address over the past two years. The <u>project team</u> is led in both a consultative and efficient manner which contributes very positively to the "work ethic" of SWALIM. However, the additional responsibilities assumed by the SWALIM team under the River Basin Management Project are in some cases too demanding of the existing human resource capacity of the project.

The <u>Project Steering Committee</u> is currently the key reference point for the SWALIM project and comprises key stakeholders (including donors, other UN agencies, INGOs as well as representation of key coordination mechanisms) but not at this stage government representation from Somalia. The concept and role of the PSC is very sound and has been instrumental in guiding the project. However, without representation from different government authorities and better analysis of user information requirements, it is difficult to see how the PSC can really fulfil its obligation of *orienting [SWALIM] in the best direction to meet beneficiary needs.*

The establishment of regional <u>Inter-Ministerial Coordination Committees</u> (IMCCs) in Somalia through SWALIM initiative has significantly provided the opportunity to interact with each of the government authorities "on their own territory". The engagement with the three IMCCs has varied depending upon both SWALIM and government's capacity in each location. When meetings have been convened, it has provided a forum to validate planned project activities and share/disseminate information, but not yet sufficient to generate project ownership.

SWALIM's capacity in the field is represented by the <u>Liaison Offices</u> established in Hargeisa and Garowe in 2006 and Baidoa in 2007. The Liaison Offices currently operate as a conduit for SWALIM Nairobi to share information products and services (including training), but have limited capacity or delegated authority to follow through on requests for information and services emanating from the field.

Largely due to the delays in staff recruitment and consequently postponement of activities, there has been an incremental increase in project expenditure during the last two years. There have been three amendments to the SWALIM **phase II budget**. The last budget revision was undertaken to allow for a no-cost extension of three months through to December 2007. It also took into account cost sharing with the River Basin Management Project of some key SWALIM technical posts during this period. A review of the status of budget expenditures and commitments to date indicate that the project should not incur any cost over-run.

Opportunities for improving **cost efficiencies** include the establishment of one common FAO Somalia administrative unit that would also service the FSAU and SWALIM projects and a stronger strategic relationship between FSAU and SWALIM which would determine common services (such as IT, GIS, data repository, reference library) in support of both projects. It is still too early in the SWALIM "programme" to assess **cost effectiveness** (since most of the products have only recently been disseminated), but there are clearly opportunities for SWALIM to recover certain costs from information products and services where they derive value to users within the category of secondary stakeholders (i.e. non-governmental).

The **technical back-stopping** of SWALIM has been carried out through the Project Task Force (PTF) in FAO Head Office (Rome) and by contracting external consultants. Through the SWALIM PTF the project has benefited from an active contribution by FAO technical divisions including technical clearance and missions. However, the role of the PTF would have been more effective if its mandate in relation to SWALIM was more clearly defined. Furthermore, the technical contribution of the PTF would have been more efficient if planned strategically from project inception.

During phase II of the project, SWALIM has placed more emphasis on improving networks and **institutional linkages** with both government authorities and the international community. These

include PSC, IMCC, SWIMS database network, SIMAC and both SSS and IASC working groups. The linkages in this phase have tended to be stronger and more effective with providers of information and data because the focus of the exercise is clear. Workshops to disseminate information products to users were being implemented towards the end of phase II, but generally without the users having sufficient stake in the products being presented. Furthermore, there should be more strategic links than currently exist with other complementary projects such as FSAU and the UNDP canal rehabilitation project.

The project's profile and **visibility** has increased significantly through phase II as a result of the SWALIM website, newsletter, feature articles, flood and rainfall reporting, and the SWALIM calendar for 2007 which was the result of a very innovative and successful schools' art competition reflecting Somali children's environmental concerns.

Assessment of Effectiveness and Impact (phase II)

SWALIM's focus during phase II has been to develop and build information products and services. The majority of products have only been available towards the end of the project so it is not possible in most cases to assess their effectiveness. Furthermore, impact, relevance and quality of products can only be assessed when they have been developed for a target usage and SWALIM has not reached this stage.

To do justice to SWALIM's work, it is useful to look at SWALIM from the point of view of "what information" for "what user". A "model" provided in this evaluation report categorises information according to how it is used at different stages of the decision-making process and can apply to any of the three frameworks of *emergency, recovery/rehabilitation,* and *development*, typical of a country such as Somalia.

With reference to this "model", SWALIM's focus during phase II has essentially been to produce baseline information contributing to "understanding the issues", to a lesser extent on thematic information contributing to "determining policies & strategies", and less still on specialised information products contributing to "implementation & response".

Baseline data (such as soil, geology, hydrology, rainfall, irrigation infrastructure, as well as roads and administrative boundaries) provides contextual information (either "constant" or "variable" data) required for all information products in any framework. It does not need customisation, but a scientific approach to produce sound datasets at the appropriate level of detail. This is what SWALIM has achieved well between phase I and II by retrieving or creating sets of organised data for land and water in Somalia.

SWALIM has produced a set of **thematic information** relating to soils, climate, water resources, irrigation schemes, flood forecasting, rainwater harvesting, land resources, remote sensing (amongst others). Most of these have been delivered towards the end of the project and their expressed potential application is more a result of the report rather than discussed with stakeholders on initiation. However, they certainly provide a broad base of information upon which to build and have the potential to generate an impact in the long-term.

Specialised information may be generated on an ad hoc or monitoring basis and is developed for specific utilisation, hence very customised. So far this category of information developed by SWALIM has been particularly applicable to emergency situations providing credible tools for project planning and interventions. A good example of a "one stop shop request" is SWALIM generating information on water points to help UNHCR determine potential IDP settlements; and in the case of monitoring, flood bulletins have helped determine preparedness plans (including pre-positioning of stocks/equipment) developed by members of the Flood Working Group (FWG).

SWALIM has worked hard through its **information services** to ensure quality and consistency in all the information products generated, as well as to develop a culture of transparency, objectivity and neutrality. It has filled the vital role of being a reliable repository and institutional memory of land and water information for Somalia. Furthermore, SWALIM services have been the "catalyst" to generating other initiatives such as the planned aerial survey of the Shabelle and Juba river basins and the Somalia Interagency Mapping & Coordination (SIMAC) group.

In view of the critical shortage of basic expertise in information management in Somalia, SWALIM has increasingly over the project carried out a number of **capacity-building** activities related to data collection, basic IT, GPS and map reading skills, GIS, and use of information. Generally the training has been of good quality and well appreciated by recipients, but in the next phase needs to adopt a more strategic approach integrated within activities with users and systematically working towards the project objectives.

SWALIM realises that to achieve any degree of **sustainability**, it has to link into Somali structures. It considers this in its selection of technologies and software for information management systems, its capacity-building programme and through the establishment of Liaison Offices and IMCCs. In the next phase emphasis upon the users' engagement in product development will lead to a greater degree of Somali ownership and information utilization.

Recommendations for SWALIM Phase III

Commendably, SWALIM phase III has been defined as the bridging phase that will move from data to application and is expected to involve users and stakeholders to a greater degree than was previously the case. However, the project design falls short of describing how this will effectively happen, which is where the following recommendations place emphasis.

In order to **ensure greater relevance and impact of information products and services**, SWALIM must work more effectively with users, developing products in a participative way according to a users' agenda. The evaluation fully understands that the user base is small and under resourced, but also strongly believes there is sufficient room to start proper engagement with the users, and that SWALIM has the potential to play a very positive and even catalytic role in improving it. To achieve this: SWALIM <u>Liaison Offices</u> must have more responsibility and strengthened capacity to collect data, transfer technical skills and facilitate product development; <u>Inter-Ministerial Coordination Committees</u> should assume a more strategic role in the project (meeting more regularly and represented in the PSC) and will identify priority application for the project to undertake at a decentralized level during phase III. Local working groups (comprising a small dedicated team from SWALIM, government, technical institutions, NGOs) reporting to the IMCC would assume responsibility for such an application to be carried out. <u>Monitoring</u> of the relevance and impact of information products and services are essential to feedback into regular reviews of the project (undertaken by the PSC) and to the long term purpose, and should be an integral part of the project. SWALIM <u>Head Office</u> capacity (Nairobi) should adjust and focus more on the overall strategy of SWALIM, common ground between the Somali regions, the central repository function, back-stopping functions for the Liaison Offices in country, and continue to operate as the Liaison Office for support to and coordinate with the international aid community based in Nairobi.

SWALIM must adopt a more **strategic approach** to <u>training</u> ensuring that a programme is developed to deliver project results with particular emphasis on progressively transferring selected functions to Somali institutions; and to <u>communications</u> based upon an analysis of different categories of users and types of information products they require. At the Nairobi level, more strategic use could be made by SWALIM of existing <u>coordinating mechanisms</u> within the SSS and IASC to (i) better understand information gaps and priorities; (ii) develop information products in consultation with users; and (iii) sharing information and forecasts. Opportunities also exist for SWALIM to build stronger <u>institutional linkages</u> with the Food Security Analysis

Unit (FSAU) particularly in support of baseline data and profiles, seasonal assessments and early warning as well as the potential to share common services (eg administration, IT, GIS, data repository and reference/digital libraries); with UNDP's canal and irrigation infrastructure rehabilitation project; and (as already initiated) with UN-HABITAT in strengthening GIS capacity in the field (amongst others).

There remain a number of areas where FAO and SWALIM should ensure better **focus and clarity**. The Project Task Force remit (monitoring, advice and technical clearance) must be defined in specific terms of reference for their role vis-à-vis SWALIM and a tentative schedule for technical back-stopping developed at the inception of phase III. The organisational structure of SWALIM could be adapted to reflect the three main components of SWALIM: (i) its core support services (including repository, GIS, training); (ii) its facilitatory role through Liaison Offices; and (iii) the thematic sections dealing with specific applications and products. Information products should clearly give information to users on when they have received technical clearance, the methodology for their development, limitations, applicability and reliability of the product. Finally, but critically, FAO should ensure that SWALIM's mandate and focus on land and water information management is maintained, and that its capacity and credibility is not in any way compromised by assuming other roles or responsibilities outside its remit.

1 Introduction

1.1 Political context of Somalia

The Somali people have now suffered the effects of civil war for nearly twenty years, triggered by an internal civil war between 1988 and 1991 in the north-west of the country. Ultimately, the government in Mogadishu was overthrown, but the successful coalition forces that had ousted the Siad Barre regime failed to agree on a replacement and plunged the country into lawlessness and clan warfare. In the meantime, the north-west part of Somalia unilaterally declared itself the Independent Republic of Somaliland. The territory, whose independence is not recognised by international bodies, has enjoyed relative stability since the late 1990s. Puntland, in the north-east of the country, declared itself an autonomous region in 1998, but does not seek outright independence from Somalia.

Many attempts have been made by Somalis and the international community to achieve peace and reconciliation in Somalia. In August 2000, an initiative hosted by Djibouti and including clan elders and other senior figures from Somalia appointed Abdulkassim Salat Hassan president. A Transitional National Government was subsequently established in Mogadishu, but never gained the support of key factional elements in Somalia and the international community were hesitant to commit the degree of support necessary to sustain the government's authority.

In 2002, a new peace and reconciliation process started in Kenya. Two years later at the end of 2004, key factional leaders and politicians signed a deal to set up a new parliament, which later appointed as the country's new president Mr Abdullahi Yusuf Ahmed (formerly president of the semi-autonomous region of Puntland in the north-east of Somalia). Abdullahi Yusuf's Transitional Federal Government (TFG) has so far failed to unite the country and has suffered itself from internal divisions. Despite the TFG gaining control of Mogadishu from the Union of Islamic Courts (UIC) earlier in 2007, with the military support of Ethiopia, the capital city remains very insecure and the seat of government is still lodged in Baidoa.

Somaliland and Puntland now represent areas where local government authorities are established and where the international community (including projects such as SWALIM) can engage on a regular basis at field level. The TFG however still has very limited capacity and scope to engage effectively in ongoing relief and rehabilitation activities because of internal security issues.

1.2 Humanitarian and development situation in Somalia

A semi-arid climate prevails throughout Somalia. There are two distinct rain seasons: the *Gu* from March to June and the *Deyr* between October and December. The north and inland zones of Somalia are predominantly pastoralist areas and traditionally important for livestock production. The extensive rangelands are now over-grazed and prone to degradation. Only 3% of the territory in Somalia is suitable for crop production. The south, served by the two major rivers of Somalia, the Shabelle and the Juba, is the main area for cereal production. These riverine areas were developed into banana plantations through large irrigation schemes during the Siad Barre regime, but this infrastructure is now in dire need of rehabilitation.

Central and southern Somalia have suffered in recent years from regular and widespread insecurity, floods and drought which have directly impacted on food security in the region. In early 2006, Somalia experienced the worst drought in over a decade which affected pastures, food production and resulted in 2.1 million Somalis (total population estimated at 7 million) in need of humanitarian assistance. At the end of 2006 the Deyr rains brought relief to drought

affected areas, but then excessive river flows caused widespread flooding in southern parts of the country not experienced since 1997-98. In some areas the rainfall measured six times the average for the time of year. Around 255,000 people in the Shabelle and Juba riverine areas were displaced. This was further compounded by heavy fighting between the TFG (supported by Ethiopian troops) and the UIC early in 2007 which led to another 70,000 displaced from Mogadishu and its vicinity.

Over 50% of Somalis live under the poverty line of US$1/day/person and only 23% have access to safe drinking water. Somalia has significantly the highest under five mortality rate and maternal mortality rate in the region at 224 per 1,000 and 1,600 per 10,000 respectively which are key contributory factors to Somalia being ranked 161 out of 163 in the Human Development Index (HDI)[1].

Food insecurity is strongly linked to poverty. Access to water, productive land and food remain key issues for Somalia's most vulnerable groups: displaced populations, ethnic minorities, subsistence farmers, urban poor and returnees. Throughout central and southern Somalia, typical levels of malnutrition in children below the age of five years, outside times of crisis, remain at over 15%, a level that would prompt major emergency humanitarian interventions in other countries. In the north of Somalia, malnutrition rates are somewhat lower although substantial pockets of high vulnerability are seen in the urban centres, displaced people's camps and areas experiencing extreme environmental degradation.

Sporadic insecurity in southern and central Somalia is a major constraint on relief operations and the work of projects such as SWALIM, limiting access to critically affected areas.

1.3   Coordinating mechanisms in Somalia

In the absence of a national government, the international community established the **Somalia Aid Coordination Body (SACB)** in 1995, comprising donors, UN agencies and international non-governmental organisations represented on an equitable basis. It constituted a voluntary body which adopted a common framework and approach for the allocation of international aid to Somalia. The SACB established five sectoral committees[2]. These committees provided guidance and coordination on technical and programme issues that arose from field operations. The SACB also developed guiding principles and sectoral strategies to which the humanitarian aid community were expected to conform.

Following the emergence of the new Somali Transitional Federal Government, alternative mechanisms to plan and coordinate aid for Somalia were established from 2005. This included the establishment of a joint Coordination and Monitoring Committee (CMC), a political/policy level forum, and the Joint Planning Committee (JPC) which initially focused on the Joint Needs Assessment (JNA) undertaken in support of a five year Reconstruction and Development Programme for Somalia (2006-2010)[3]. The CMC (co-chaired by the TFG and the World Bank/UNDP on behalf of the aid community) was expected to play a critical role in the dialogue between the TFG institutions, regional authorities and the international community through joint coordination modalities and in building the capacity of the new Somali institutions. However, capacity constraints and divisions within the TFG have limited the government's engagement.

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[1] UNDP Human Development Report for Somalia 2001.
[2] (i) food security and rural development, (ii) health, (iii) education, (iv) water, sanitation and infrastructure, and (v) governance.
[3] The TFG and the international community requested the United Nations Development Group (UNDG) and the World Bank to co-lead and prepare for a Somali Joint Needs Assessment (JNA); the objective of the JNA is to help Somalia begin to achieve sustained reconstruction and development and deepen the peace process over an initial period of five years 2006-2010.

The sectoral committees[4] initially established under the SACB continue to function under the auspices of the **CISS Executive Committee**[5] and with the support of the **Somalia Support Secretariat (SSS)**. Under each sectoral committee are a number of working groups. SWALIM participates in the Agriculture and Livestock Working Groups, reporting to the Food Security and Rural Development Committee (FSRD).

In addition, humanitarian coordination mechanisms have been adapted and strengthened to enhance the worsening situation in Somalia over the past three years (through the initiative of UN OCHA). In January 2006, an **Inter-Agency Standing Committee (IASC)** for Somalia was formed and nine clusters established[6] as part of the "cluster approach". Furthermore, a **Humanitarian Response Group** (HRG) of cluster leads and co-leads has been formed to discuss humanitarian issues needing urgent attention and timely mobilisation of responses. The HRG is complemented by the **Flood Working Group (FWG)** during the rainy seasons (which is co-chaired by SWALIM). The IASC clusters are intended to be linked or in some cases embedded within the SSS sectoral committees to avoid duplication, but the results have been mixed.

2   Background to SWALIM

Since the collapse of the central government in Somalia, its people have been left ungoverned and its natural assets left unprotected. The natural resources of Somalia have diminished significantly during this time and competition for remaining resources has fuelled conflict. Population growth and climate change are forecast to make the situation worse. Structured and accessible information to support sustainable land and water resource management in Somalia became critical. Against this background a number of interested parties took up the initiative to establish an information management system focused on natural resources.

The original **Concept Paper** for the project was developed in 2001, funded by UNDP. The project was based on the premise that: (i) efforts towards relief, reconstruction and development needed to be underpinned by a comprehensive understanding of natural resources and production systems of rural Somalia; and (ii) future Somali administrations would benefit considerably from such information baselines.

FAO received the endorsement of the Food Security and Rural Development (FSRD), and Water, Sanitation and Infrastructure (WSISC) Committees of the SACB to develop and implement a programme of Water and Land Information Management for Somalia at the end of 2001. In the absence of an effective central government for Somalia, FAO was considered the appropriate institution to assume the role of custodian of strategic information on behalf of the Somali people and authorities. An **Establishment Phase** of the project (funded by Cooperazione Italiana: US$310,000) was implemented through 2002.

SWALIM I operated from June 2003 to February 2004 (funded by the European Commission: €450,000) with a short FAO-TCP bridging phase from March to June 2004. SWALIM I established a core team of FAO specialists, developed core datasets and management tools, initiated information management structures and established a network of partner organisations. During the first phase, an evaluation/feasibility mission was conducted by independent consultants (September/October 2003) and a "Broad Vision and Medium Term Implementation

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[4] The committees now include: (i) Food Security & Rural Development, Health, Education, Water, sanitation & Hygiene, and Coordination Committee for Reconstruction and Development Programme (RDP) Pillar 1 (replacing Governance).
[5] Coordination of International Support to Somalia Executive Committee, established in June 2006.
[6] (i) food aid, (ii) agriculture and livelihoods, (iii) water & sanitation, (iv) health, (v) nutrition; (vi) protection; (vii) education, (viii) logistics, and (ix) shelter.

Strategy" was prepared to clarify the project aims, strategies and objectives (including emphasis on agricultural land and irrigation).

SWALIM II followed from October 2004 to September 2007 (funded by the European Commission: €3,500,000 and UNICEF: €185,000) building upon the achievements of the first phase. A number of changes in technical staff (including the Chief Technical Adviser – CTA) resulted in delays to the original implementation plan and intensification of activities towards the end of this phase. Additionally the SWALIM project team assumed responsibility for a parallel project: "Support to the Sustainable Management of the Shabelle and Juba Rivers in Southern Somalia" commonly referred to as the **River Basin Management Project** (funded by the European Commission: €1,510,000) under implementation since August 2006. The RBM includes both information management (76% of budget) and barrage rehabilitation (24% of budget) and draws upon SWALIM's existing technical capacity. The EC and UNICEF have agreed to a no-cost extension of SWALIM II until 31 December 2007.

A proposal for **SWALIM III** has been submitted to the European Commission (EC) for 24 months from 1 January 2008.

3   Methodology and Schedule of the Evaluation

The present final evaluation of SWALIM Phase II follows upon a mid-term evaluation conducted in November 2006 that made a number of recommendations, summarized below:

a) There should be a bridging phase at the end of SWALIM II to avoid discontinuation of the project;

b) The project should shift its focus towards: (i) natural resources management with particular attention to rangeland, erosion and degradation, and (ii) land use planning;

c) SWALIM's approach should concentrate more on: (i) capacity-building within functioning administrations, and (ii) support to planning and decision-making to boost the practical application of results;

d) SWALIM to continue the role as data provider to agencies and institutions working for Somalia, consolidate and fine-tune services already in demand (such as flood warning and rainfall data), and improve the feedback system for interaction with stakeholders and partners.

However, a number of observers, including donors and project staff themselves, considered that the exercise lacked suitable evaluative conclusions and focused exceedingly on land activities. It was therefore decided by FAO (in consultation with other stakeholders) to complement the mid-term evaluation with a final evaluation of SWALIM II which would:

a) Analyse existing information collected by the previous evaluation and other processes to come to clearer conclusions about the project's relevance, efficiency, effectiveness and impact; and

b) Map out the expectations of beneficiaries and stakeholders and give directions how to meet them.

The full terms of reference of the final evaluation are presented in Annex 1 of this report. In order to fulfil the purpose and scope of the evaluation, the team first undertook a **desk review** of documentation relating to the context of land and water in Somalia, strategies and plans developed for Somalia in these sectors, SWALIM project documentation & information products as well as previous evaluations conducted of SWALIM[7] and other FAO projects in Somalia.

In August 2007, a web **questionnaire** (with eleven key questions) was designed and sent out to 400 persons identified on SWALIM's mailing list as well as participants on the SSS Food Security & Rural Development (FSRD) and the Water, Sanitation & Hygiene (WASH) sectoral committees in Nairobi, Hargeisa and Garowe. In total there were 35 responses. An analysis of the questionnaires is presented in Annex 8.

The evaluation mission initially undertook **interviews** (9-10 October) with all available members of the SWALIM **Project Task Force** based in Rome which includes representation of four technical divisions (NRLW, NRLA, NRCB, NRCE) as well as TCES.

In Nairobi, from 11 October, the evaluation mission was briefed by the land, water, Geographical Information System (GIS), information management and operations sections of SWALIM. **Interviews** were subsequently conducted in Nairobi and in-country (Hargeisa[8]) with **key stakeholders** of SWALIM including government authorities, donors, UN agencies, ICRC,

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[7] Reference was made to previous SWALIM Project Evaluations conducted in October 2003 and November 2006 as well as the EC Monitoring Report of SWALIM January 2006.
[8] As of October 2007, the levels of insecurity in Baidoa and Garowe prevented the mission obtaining UN security clearance for other parts of Somalia.

FEWSNET, PACSU and NGOs[9]. Respondents included members of the PSC, IMCC, the FSRD, WASH, FWG and other coordination mechanisms with which SWALIM engages. A list of respondents is provided in Annex 7.

The evaluation mission also attended a session of the Somalia Flood Working Group (co-chaired by OCHA and SWALIM) held in Nairobi on 17 October and the Dissemination Workshop held by SWALIM in Nairobi on 18 October[10].

The evaluation mission held **debriefing meetings** with the EC, FAO and SWALIM in Nairobi on 25 October and the Project Task Force in Rome on 8 November 2007 to validate findings and recommendations as well as to generate feedback for inclusion in the final **evaluation report**.

The **team composition** for the final project evaluation included a team leader (with experience in early warning, information and emergency programmes as well as familiarity with FAO and the Somalia context); and a team member (with experience in collation and processing of information on natural resources, information technologies, remote sensing and GIS). Preparatory work and management of the mission was undertaken by the FAO Evaluation Service (PBEE).

It is important to note that it was not the remit of the team to evaluate the Support to the Sustainable Management of the Shabelle and Juba Rivers in Southern Somalia (GCP/SOM/047/EC) Project, but inevitably the team had to consider both positive and negative implications of this parallel project on SWALIM.

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[9] Wherever possible and feasible, alternative respondents were sought to those who contributed to the mid-term evaluation to provide a broader view.
[10] The mission had planned to attend the SWALIM Dissemination Workshop in Garowe on 25 October, but this workshop was postponed due to insecurity.

4   Relevance of SWALIM Phase II

As indicated in section 2 of this report, SWALIM Phase II has been emerging and evolving from a series of initiatives over the past six years. It essentially focuses on developing baseline data that will be required later on to build customised information for policy and decision making in the area of land and water management. Such an information base was completely lost for Somalia during the protracted internal conflict, and SWALIM's initial main drive and scope was the (re-)creation of that basis of information, a perfectly legitimate aim.

So SWALIM II started very much "technically minded" (the creation of data and information) with a long term aim in mind, that such information would support ministries in re-building the country. While the project design of SWALIM II was adjusted within the first year of the project to improve its implementation and feasibility, its core value did not change.

There are some important points that need to be raised with regards to the project design and corresponding logical framework.

Henceforth, when speaking of project documents and logical framework, the report is making reference to the "*Project implementation plan –2006*" and its *revised logical framework.*

4.1   Project purpose

SWALIM project purpose ("*Water and land policies and interventions are improved*") would not be achievable, for the following reasons:

a) The purpose goes beyond the scope of SWALIM. The actual **definition** of policies and **implementation** of interventions are completely out of control of SWALIM's activities and could therefore not be the outcome of the project. As defined, the purpose could have been SWALIM 's overall objective, i.e. SWALIM's possible impact, if its purpose was successful.

b) The purpose is too ambitious. Given the Somali context at the start of the project, i.e. hardly any information available and extremely few policy makers at the ministries level, SWALIM could not, in its three year timeframe, hope for i) identification of application, ii) production of data and relevant information, iii) usage of the information by the stakeholders and iv) their integration into policies and interventions.

A more realistic but still ambitious purpose for the long term of SWALIM could have been "*Water and land policies and interventions are <u>better informed</u>".*

4.2   Project results

Project Result 1: *Access to, and dissemination of, information products and services improved*
Project Result 2: *Essential baseline information produced, involving stakeholders*
Project Result 3: *Enhanced capacity of personnel in the development and use of information products and services.*

The logic of the sequence of the project results is questionable. While it is clear that these results may, to some extent, be the result of activities carried out in parallel, or at least with some degree of overlap in time, it would have made more sense to at least start with the establishment of the information, and then improve information access and services.

4.3   Project activities

The defined project activities cannot completely allow for the success of the above project results. Both Result 2 and 3 cater to some extent for ensuring that the information is produced for and with the stakeholders, hence assuming that the users are involved throughout the production and usage processes. However, overall, the project activities are in effect set up from a Producer point of view only. While the constraints of information production cannot be underestimated, information will be useful and appropriate when it meets the users' requirements.

The activities involving the stakeholders are few and far between, and essentially limited to participatory "feedback" on what SWALIM has to offer. While SWALIM team mentions "client analysis", there is no evidence of a strategy or approach for it, nor any concrete documentation to support it.

There is a lack of activities seriously looking at and addressing the point of view of the users. Such activities could have been for example:

a) identifying and understanding i) the diversity of the users base, ii) the diversity of their specific needs and their priorities, and hence iii) the characteristics of the information to be produced to make it relevant and used;

b) engaging in a participative way the users throughout the project, hence promoting focus, ownership and then sustainability.

The result is a set of somehow fragmented activities that should lead to a wide yield of baseline data collection and creation, and preliminary broad resources assessment reports.

4.4   SWALIM evolution

Despite the project design shortfalls, and thanks to its competent team, SWALIM's "mind set" has somehow evolved throughout its implementation. The recognition of the importance of the user has been growing, and SWALIM's team has been progressively carried out its activities with the user in mind, particularly in terms of information access and dissemination. This shift is being carried over to Phase III, where the intended focus moved to data applications.

5   Assessment of Project Implementation

5.1   Activities and results

The main products of SWALIM II are indicated in Annex 5. They are summarised as data sets, maps and reports relating to water resources and land resources, as well as tools for data and information management and access.

Overall, SWALIM has done very good justice to the project design. Despite the late start of the project (see Section 5.2.5) it has carried out the project activities and fulfilled most of its output, a tall order sometimes at the expense of some depth, leading the a corresponding level of achievement within its results:

Result 1: SWALIM has established a centre that has reached a critical level of expertise and professional standards for the collection, organisation, repository and accessibility (through a wide range of tools) of baseline geo-spatial data. SWALIM is a recognised data centre and a first port of call by the international community for both its expertise and data. Information carrying "SWALIM' stamp" is believed credible and reliable.

Result 2: Baseline information has generally been produced (see an overview in Annex 5), that will serve as essential foundation blocks for the creation of future information to be customised for specific decision making. The project has made very good trade-offs between resources available and constraints (e.g., geographical extent of Somalia and security) to produce more detailed maps (e.g. soil maps) in priority area for Somalia. However, the involvement of stakeholders has been only partially achieved, with difficulties to link with government (considered the primary beneficiaries) and to varying degrees with other agencies (secondary beneficiaries)

Result 3: Training has been increasingly emphasised as the project progressed (see an overview of the training programme in Annex 5). To some degree SWALIM's information production capacity had first to be consolidated before the project could embark on training users of information. Training in the area of data collection has particularly been very well received by users. However, the overall lack of strategy in the training implementation has led to a limited capacity built for the actual development and usage of decision support information.

Because of initial project delays, the concentration of most of the activities within a reduced time-frame, has led to a backlog of outputs produced at the very end of the project, thereby deferring the most visible impact to the final stage of the project.

Given its constraints, the team has been effective in carrying its tasks, being pragmatic and realist, combining activities when possible, while always trying to keep quality as a standard.

5.2   Project management

The SWALIM project is based in Nairobi, Kenya, because the political and security situation in Somalia still makes it unfeasible for FAO/SWALIM to locate its management functions in country. SWALIM is located in the same building and floor as FAO/FSAU. The FAO Somalia Office is located separately in Nairobi. The project is operated by the FAO's Emergency Operations and Rehabilitation Division (TCE) with field management under the responsibility of the FAO Officer in Charge for Somalia in Nairobi. A Project Steering Committee (PSC) comprising key stakeholders is SWALIM's key reference point and regularly reviews project

activities and progress. A Project Task Force (PTF) based in FAO Rome provides technical clearance and backstopping.

5.2.1   Project Steering Committee (PSC)

The SWALIM Project Steering Committee (PSC) has met every six months for the duration of phase II. The concept of a PSC incorporating key stakeholders to regularly review the project is very sound and its function has been very supportive of the project throughout. The purpose of the PSC is "to support SWALIM in meeting the beneficiaries' needs by providing a forum for all interested parties – donors, implementing agency, beneficiaries and stakeholders – to steer the project within the framework of its agreement"[11]. The composition of the PSC has taken into account key stakeholders within the international aid community (related donors, other UN agencies and INGOs as well as representation of key coordination mechanisms) but does not include government representation (despite government authorities being "primary beneficiaries" of the project). The TOR for the PSC makes provision for such representation as soon as "Somali public administration is in a position to represent all regions equally".

The PSC has tended to adopt more of an advisory function than a "steering" role and its agenda is determined more by SWALIM than by its members. There is some debate with reference to the progress reports and project achievements (against planned targets) in the minutes of the PSC, but insufficient attention to the relevance of activities to meet beneficiary needs. Without representation from the different government authorities in Somalia and a comprehensive user survey of information requirements, it is difficult to see how the PSC can fulfil its obligations of meeting the beneficiaries' needs.

The TOR allows observer status of the CTA from the Somalia FSAU which would be very beneficial to identify and establish links between the two projects if the FSAU CTA was to attend more regularly.

5.2.2   Inter-Ministerial Coordinating Committees (IMCC)

IMCCs have been established in Hargeisea (Somaliland), Garowe (Puntland) and Baidoa (southern/central Somalia) at different stages of the project and with varying success. Critically, this provides a forum for SWALIM to interact with each of the different government authorities on their own territory. It is a very positive development and one which SWALIM should build upon, since convening "meaningful" meetings at the national level combining different authorities is increasingly challenging and unrealistic in the current political context of Somalia.

The IMCCs are at different stages of development across the country. In Hargeisa and Garowe, there have been opportunities to hold regular IMCC meetings since mid-2006, but this has not yet been the case in Baidoa, where a SWALIM Liaison Office has been established only recently. Where IMCCs have been convened, there is a sense that the committees operate largely for validating project priorities, information exchange and the purpose of planning joint field activities with SWALIM. IMCCs have yet to develop as a forum for constructive debate or generate an appropriate sense of project ownership. The government authorities in Somalia repeatedly call for a more active involvement in the planning and implementation of SWALIM if the IMCCs are to be effective.

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[11] Terms of Reference for the Steering Committee of SWALIM Project Draft III (undated).

5.2.3   Team management

The SWALIM project team is managed in both a consultative and efficient manner. The evaluation was very impressed with the spirit of the staff team who are clearly very committed to the objectives of the project and work long hours to complete tasks within set deadlines (one of SWALIM's strength particularly appreciated by its users). Weekly team meetings chaired by the CTA are held and contribute to maintaining team understanding and cohesion.

The original project organisational chart (under SWALIM phase II) was sub-divided into three sections: (i) baseline, (ii) information resources & training, and (iii) analysis with 'operations" outside. This structure did not work well for the current team. The team was consequently structured under "themes": (i) land resources, (ii) information management, (iii) river and water management, and (iv) operations management. This is a more logical structure and has also been adopted in the design for phase III.

Regarding the organisational chart and team structure, the evaluation noted a few concerns:

o   Existing project staff (originally committed 100% to SWALIM at the start of phase II) are now shared with the River Basin Management (RBM) Project thereby potentially losing critical staff resources to the detriment of SWALIM and demanding unrealistic expectations of certain posts (*e.g.*, River Management/Water Coordinator).
o   "Information management" and "operations" are not "themes" but services that support the development of themes, and should be reflected as such in the organisational chart.
o   The Liaison Office in Hargeisa[12] currently plays a very passive role, whereas it should be much more proactive (see also section 5.2.4 below).

Sharing the function of Operations Manager with FAO/FSAU (which was factored into the original project design of both FSAU and SWALIM) has not only been cost effective, but it has provided a critical link between the two projects that has facilitated shared experience and information. SWALIM and FSAU should be encouraged where feasible to look at other opportunities to share human resources to strengthen this collaboration between both projects.

The evaluation was concerned that the project, carried by its enthusiasm, could at times be "over opportunistic" and become involved in new ventures or initiatives without enough careful consideration of the implications for existing and ongoing project commitments. Assuming responsibility for the River Basin Management (RBM) Project is a case in point. Whilst the evaluation team concurs that the information management component of the RBM Project complements and supports SWALIM activities, the engagement in engineering design and barrage rehabilitation (which requires a different skills set) should be administered and managed under a separate project team (still within the competence of FAO). Additional responsibilities such as co-chairing the Flood Working Group (FWG) and GIS activities taking on a "life of their own" are other cases in point.

5.2.4   Liaison Offices

SWALIM Liaison Offices in Hargeisa and Garowe are a very positive development to develop closer linkages/relations with government administrations in Somaliland and Puntland. The Liaison Office in Baidoa is only just established and currently has very limited capacity[13]. The Liaison Offices currently operate much below their terms of reference[14], and essentially as conduits for SWALIM Nairobi to share information products and services (including training), but

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[12] The other Liaison Offices were not visited for security reasons.
[13] Insecurity in Baidoa at the current time does not allow SWALIM to establish any additional capacity for the time being.
[14] Terms of Reference, Liaison Officer – Hargeisa, Somaliland.

have limited capacity or delegated authority to follow through on requests for information and services. In Hargeisa, the number of visitors using SWALIM information and services totals just a few dozens visits for 2007, but indications are that the frequency of visits at the office have been sharply decreasing. The government authorities in Hargeisa have already requested that the SWALIM Liaison Office is "empowered" with the capacity to provide relevant expertise and training[15].

The evaluation team saw reference to the establishment of Project Steering Committees for each of the Liaison Offices. This could be a way of more effectively engaging government authorities at a decentralised level and promoting broader ownership of the functions/responsibilities of the Liaison Offices, but their purpose would have to be distinct and complementary to the IMCC.

5.2.5   Recruitment

For the first 9 months, the project was managed by a temporary Chief Technical Adviser (CTA), four international consultants and a small number of national staff. The delay in recruiting the CTA by almost one year was a major set-back to phase II and resulted in delays in recruiting other key members of the team and a back-log of activities being compressed into the final year of the project. It has also been very difficult to identify suitably qualified and experienced consultants in time to fulfil critical project tasks. FAO needs to be much more timely and pro-active with respect to recruitment of technical posts in this project to impact on both efficiency and quality of the project. SWALIM's decision in phase III to reduce the project's dependency on external consultants appears to be an appropriate way forward given the delays and set backs experienced in phase II.

5.3   Cost efficiencies and effectiveness

In view of a threefold increase in the budget of the FAO Somalia Field Programme between 2004-2006 (with an approved budget of $23m in 2007), the evaluation understands that the FAO Somalia Office now has the authority and access to an FAS workstation which will allow the office to process payments on behalf of all FAO projects operating in Somalia (including SWALIM) rather than depending upon the limited capacity of the FAO Representation Kenya as was previously the case[16]. This is expected to speed up payment processes that were previously cumbersome and inefficient.

However, there are three administrative units established under the FAO Somalia Field Programme: one for FAO Somalia, one for FAO/FSAU, and one for FAO/SWALIM (the latter two projects sharing an Operations Manager). In 2006 an audit of the Somalia Field Programme (including FAO Somalia, FAO/FSAU and FAO/SWALIM) recommended that the three respective administrative units be amalgamated to improve efficiency of operations, compliance with established procedures, and improved access to corporate systems. Whilst improvements to the procurement and recruitment functions have been achieved by each of the administrative units (including SWALIM), the amalgamation has been discussed internally, but not yet been achieved. It would be expected that one amalgamated administrative unit for the FAO Somalia Field Programme will in future be more cost-effective.

Furthermore, there are other services common to both FSAU and SWALIM which could be shared in the interests of improving access, standardisation and cost-effectiveness. Currently

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[15] Somaliland IMCC Meeting Minutes, Hargeisa 2 May 2007.
[16] By 2007, 52% of the transactions processed through the FAOR Kenya were on behalf of the FAO Somalia programme.

both FSAU and SWALIM operate separate IT support, GIS units (with compatible standards), reference and digital libraries (FSAU currently looking at harmonising its approach to SWALIM's), and field teams.

The value of SWALIM's products and services ultimately lies in the use made of them for decision-making. There is more and more evidence that information products such as Flood Watch, Storm Watch and SWIMS are providing forecasts, projections and data that are being applied to timely emergency preparedness and response, deriving both humanitarian value and cost benefits.

The cost benefit of other information services are less tangible as SWALIM still does not know the demand, and subsequently the value accorded to the products it disseminates. During phase II, some plans for cost-recovery of either information products or services were designed, but never put in place as it was believed to be counter productive to SWALIM's aim at this time of the project implementation. Outside the special relationship that exists between SWALIM and its primary stakeholders, SWALIM should consider charging for information services both to improve cost-effectiveness, but also to gauge the demand for its services and products.

5.4   Project budget and expenditure

There have been three approved budget revisions to the project during phase II which are represented in the table below:

Budget Code	Category	Original Budget €	Revision 1 June 2006	Revision 2 Jan 2007	Revision 3 Sept 2007	% Last Revision
5011	Salaries Professional	772,131	583,279	874,425	803,732	
5012	Salaries General Service	205,984	213,606	186,521	196,946	
5542	International Consultants	746,311	568,607	584,196	566,649	
5543	Regional/National Consultants	399,426	435,082	462,726	474,324	
	Sub-total Personnel:	**2,123,852**	**1,800,574**	**2,107,868**	**2,041,651**	**55%**
5014	Contracts	392,081	381,885	260,274	281,129	
5027	Technical Support Services	131,885	106,815	31,062	34,601	
	Sub-total Technical Services	**523,966**	**488,700**	**291,336**	**315,730**	**9%**
5021	Travel	218,589	481,254	454,200	488,695	
	Sub-total Duty Travel	**218,589**	**481,254**	**454,200**	**488,695**	**13%**
5023	Training & Workshops	113,689	130,000	70,944	68,057	
5024	Expendable Equipment	36,885	40,656	32,400	38,610	
5025	Non-Expendable Equipment	277,199	285,669	254,905	256,291	
5028	General Operating Costs	149,745	217,072	232,272	234,891	
	Sub-total Direct Costs	**577,518**	**673,397**	**590,521**	**597,849**	**16%**
5029	Support Costs (7% of total)	241,075	241,075	241,075	241,075	
	Sub-total Support Costs	**241,075**	**241,075**	**241,075**	**241,075**	**7%**
	TOTAL	**3,685,000**	**3,685,000**	**3,685,000**	**3,685,000**	**100%**

The status of the budget at the last revision (September 2007) was that personnel costs represent about 55% of the budget; direct costs in the field 16%; duty travel 13%; specialised

technical services (including those provided through technical divisions of FAO Rome) 9%; and overhead costs contributing to FAO headquarters 7%.

The most significant proportional changes to the budget during the course of the project are a 224% increase in direct travel costs (between the start and end of project) due to higher than envisaged utilisation of UNHAS flights (rather than ECHO flights) between Nairobi and Somalia (whose costs have also increased in the past three years)[17]. Extensive use of long-term international consultants also contributed to cost overruns.

The budget for technical support services (from FAO Rome) has been reduced to 26% of the original allocation, but technical support was much higher than the budgeted costs following the January 2007 and September 2007 budget revisions. The last budget revision (September 2007) was undertaken to allow for a no-cost extension of three months through October to December 2007. It took into account cost sharing with the River Basin Management Project of some key SWALIM technical posts during this period[18] which will be extended further during the course of SWALIM phase III. A review of the status of budget expenditures and commitments to date (12 October 2007) and projected costs until 31 December 2007 indicate that the project will not incur any cost over-run.

As reported in the previous evaluation, there has been an incremental increase in project activities and therefore project expenditure during the course of phase II. Expenditure in year two (12 months) was approximately 250% that of year one (12 months), and year three (15 months including a three month no-cost extension) will be approximately 150% that of year two.

Currently, budget monitoring is undertaken against both the budget categories defined in the SWALIM project agreement and FAO's internal financial management system (which are not fully compatible). Despite efforts to initiate a suitable monitoring system, there is currently no system in place to budget and monitor expenditure against activities and results defined in the log-frame. This would be particularly useful to develop a better sense of cost effectiveness.

5.5   Technical backstopping

The technical backstopping of SWALIM has essentially been carried through the Project Task Force (PTF) from FAO HQ and to some extent through the contracting of external consultants.

As a well managed multi-sectoral project, SWALIM has gained valued and attracted interest including within FAO, hence facilitating an active contribution from FAO technical departments, which has very much been appreciated by the SWALIM team. The PTF has carried out **monitoring**, **advice** and **technical clearance** activities.

The most important point that must be raised here is that, while there are generic FAO procedures for a PTF[19], the exact boundary of these monitoring, advising and technical clearing functions, and hence the exact remit of the PTF in SWALIM's framework does not seem to have been set, resulting in an ambiguous and unclear situation. The following two important issues illustrate that.

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[17] This mirrors the same predicament faced by FSAU in phase IV and documented in the FSAU Evaluation Report of October 2005.
[18] Currently the following SWALIM posts are proportionally finance by the RBM Project (%): (i) Chief Technical Adviser (30%); Water Coordinator (50%); GIS Coordinator (50%); Hydroinformatics Officer (100%); Water Resources Officer (100%); Data Management Officer (100%); and Administrative Assistant (100%).
[19] FAO (2004) Procedures for the Organization of Project Task Forces, Field Programme Circular, FPC 2002/2.

Firstly, the evaluation observed that on one hand the PTF has been responsible for technical clearance of SWALIM documents (reports and maps). On the other, the PTF has regularly provided technical and scientific advice to SWALIM, at various stages of the project, but those inputs have effectively been considered as "advice", i.e. taken on board or not. Consequently, the PTF found itself several times in front of a "fait accompli" in terms of being presented with "complete reports" in which they had very little input in terms of process and approach used, and therefore finding itself in the situation of having to technically clear documents where the content is not reflecting their advice. In addition, it was observed that on several occasions SWALIM released to stakeholders and published on the SWALIM website documents without clearly indicating their status (e.g. draft, final version, etc.).

Secondly, and probably partly as a consequence of the first issue above, technical inputs have essentially been on an ad hoc basis, sometimes at the design stage, sometimes at later stage, but apparently not consistently. The project would have benefited from a strategic plan, from project inception, for the technical backstopping input according to the respective responsibilities, as well as the foreseen project activities and needs. Even if obviously these plans would have evolved during the course of the project, they would have gone towards increased understandings and a more efficient use of resources.

While the PTF has provided clear support in terms of scientific methodologies, it is surprising that the PTF has brought very limited attention to the relevance of the information for the end-users.

Finally, staff from the Knowledge Exchange and Capacity Building (KCE) division of FAO contributed to SWALIM, essentially regarding FAO AGRIS. SWALIM would benefit from a more substantial involvement of this department with respect to advice on good practices in information communication, dissemination and sharing.

5.6   Institutional linkages and synergies

In the context of Somalia, with little formal institutional mechanisms in place, it is critical that an information service such as SWALIM is proactive in engaging with relevant networks/institutions in Somalia and within the international aid community based in Nairobi. SWALIM has achieved this in the following ways:

- o   Including key stakeholders (with the exception of government authorities) and chairs of sectoral SSS committees strategic to SWALIM in the Project Steering Committee;
- o   Establishing Inter-Ministerial Coordination Committees (IMCCs) in Hargeisa, Garowe and Baidoa including relevant line ministries;
- o   Initiating experts, stakeholders and dissemination workshops in both Somalia and Kenya;
- o   Developing the SWIMS database network and participation in the Somalia Interagency Mapping & Coordination (SIMAC) forum; and
- o   Participating in the SSS Water, Sanitation & Hygiene sectoral committee, the Agriculture Working Group (of SSS/FSRD) and the Flood Working Group (of IASC HRG).

Given that most of these developments only occurred during the second phase of the project, it is clear that SWALIM has now placed more emphasis on improving both its networks and communications with government authorities and the broader international aid community. There are however fundamental biases to SWALIM's approach during phase II. These are:

- a)   Linkages and networks are much stronger with providers of information and data than with information users;

b) Meetings and workshops have been convened more with the purpose of sharing and disseminating information than seeking views on the type/nature of information that users require; and

c) SWALIM has tended to initiate/create meetings/workshops to serve its specific purpose rather than using existing coordination mechanisms.

Two important steps that SWALIM now needs to undertake are: (i) distinguish from within its collective of "stakeholders" and "partners" who are information providers and who are information users; and (ii) develop clear strategies towards each group. With respect to information users, SWALIM needs to "intensify the dialogue with the stakeholders to become more client-orientated and to obtain a central place of reference for planners and decision-makers".[20] This dynamic and transparency does not sufficiently exist at the moment and yet there are opportunities (both inside and outside the PSC and the IMCCs) for SWALIM to initiate and generate such technical debate.

Furthermore, there appears to be a lack of synergy between SWALIM and other existing projects which (from an outsiders perspective) are obvious initiatives to link with in terms of information sharing, capacity building and strategic planning. These include FSAU (although this collaboration is growing[21]), the UNDP Shabelle irrigation project and PACSU (now about to be phased out). FSAU (in conjunction with FEWSNET) and SWALIM could for example work much closer on developing baseline information, early warning (including joint bulletins), and undertaking seasonal and rapid assessments (especially with respect to crop production and impact of floods); SWALIM could work more effectively with UNDP on flood preparedness measures[22] and technical standards for irrigation canal rehabilitation; and PACSU and SWALIM could have usefully collaborated on capacity-building and policy/strategy developments related to irrigation/river basin management in the south of the country.

5.7   Profile and visibility

There is no question that most humanitarian and development actors in Somalia are much more aware of SWALIM, its services and its information products at the end of phase II than at the beginning. SWALIM has done very well to raise the profile of the project and of its information products.

Key mediums for promoting awareness of the project have been the SWALIM website (re-launched in October 2007), the quarterly newsletter "SWALIM Update" and regular feature articles (ten have been produced in 2007) both providing news of SWALIM products, services and activities as well as raising awareness of important issues such as land degradation. Also regular flood and rainfall bulletins, Flood Watch and Storm Watch are produced according to seasonal requirements. These publications have been widely disseminated by e-mail and are accessible on the web-site. However, the format remains largely in English and more needs to be done to target primary stakeholders in Somalia.

Interestingly, one of the most effective products to promote SWALIM visibility was the 2007 calendar, based upon a schools' art competition launched by SWALIM in Somaliland and Puntland to promote environmental awareness. This was not a planned SWALIM activity, nor was it intended to draw attention to art being excluded from the primary school curriculum, but it did just that, and has become SWALIM's best known single product to date, not least in Somalia.

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[20] Recommended by the Monitoring Report of SWALIM by the European Commission January 2007.
[21] SWALIM soil and water data will contribute to the next phase of FSAU livelihood baseline profiles and rainfall data will contribute to the seasonal assessments facilitated by FSAU.
[22] UNDP has established local flood monitoring committees in its project area of the Shabelle river basin.

6   Assessment of Effectiveness and Impact

6.1   Introduction

SWALIM's activities have focused on developing and building products and services. To have an impact, the products and services provided by SWALIM would need to be used by its intended audience. Being used means that the products and services (i) would have the relevant data/information (content), (ii) would have an appropriate format (readable and understandable at the relevant level), and (iii) would be timely accessible. Therefore, impact, relevance and quality of information products can only be assessed when they have been developed for a target usage.

However, this has not been clearly defined in the case of SWALIM. In addition, having started nearly from scratch, the time required for development and implementation of the products and services corresponded to the project time frame, resulting in the majority of the products being available towards the end of the project. Consequently SWALIM's products and services have hardly had a chance to be used yet, and an assessment of SWALIM's effectiveness according to its indented long term impact as described in the project document and logical framework (see Annex 2) would probably reveal poor results.

However, SWALIM II is not without potential and real impacts. To attempt to capture them and do justice to SWALIM's work, it is useful to look at SWALIM from a point of view of "what information" for "what user". The "model" provided in the Text Box next page categorises information according to how it is used in the decision making process. This way, it can be easily seen that information must be considered according to its intended usage, and therefore, to bring significant impact, an information project like SWALIM must address its multidimensional context made of **users**, **providers**, and **participatory iterations**.

In a country like Somalia, there are typically three frameworks: **Emergency**, **Recovery & Rehabilitation**, and **Development**. The above model is applicable to all three, only that the emphasis on the various sections of the process will be different. Here are a few examples drawn from the realities of current Somalia:

- **Flooding** along the Shabelle and Juba rivers, with major humanitarian consequences in the Deyr season of 2006, provides an **emergency** example. The information required by government and the international community (represented by the Flood Working Group) include *specialised products,* such as the Flood Watch bulletins (which indicate flood warning levels and rainfall forecasts) and field reports including information on the physical status (including breaches) of any existing flood control infrastructure. To meet the needs of the users, these products must be focused, i.e. highly customised, and produced frequently, which could be daily in crisis period. From this information and dialogue, preparedness plans can be developed, logistics and relief stocks pre-positioned, communities informed. The production of this information requires an operational infrastructure that can reliably collect up-to-date information such as rainfall and river water level, integration of the information in the existing knowledge/floods model, production and transmission of the bulletin, and all that in a timely fashion, clearly asking for very specific expertise, infrastructure and organisation.

- **Irrigation** provides a typical **rehabilitation** example. Agencies planning irrigation rehabilitation will be interested in the status of the dams and channels network, at the strategic planning level, for a donor like the EC to decide on the amount of funding required and for which area of the country. The information required can take the form of thematic products, with some medium level of customisation, providing a regional view of the situation. Smaller organisations, such as the NGOs associated with the ARDOPIS project, may require one-off detailed specialised maps of their area of interest.

Information in the decision making process

The decision making process can be described as an iterative process, triggered by an ***issue*** that needs addressing (e.g., flooding or food security). The steps towards doing something about this issue can typically be i) **understanding** the issue, ii) definition of **policies** & **strategies**, and iii) **implementing them** & **responding** (actions). In order to assess the effectiveness of the actions, to learn lessons, and to improve the next way round, a step for **evaluating** the actions with regards to their intended impact will be critical. Finally, the status of the issue can be re-assessed before making new decisions.
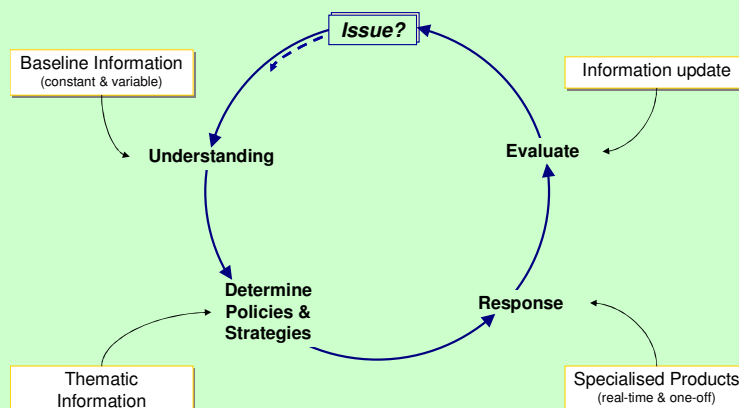
The more informed each of these steps will be, the more appropriate the decision making should be, and hence the more impact it should make. Some very important elements characterise this process:

a) Each of these steps is carried out by **different types of actors**, according to their job, functions and specialisation (e.g., from irrigation management officer to a minister).

b) Consequently, these actors – the **information users** – require **different types of information** (as illustrated above), organised in **different types of products and services** (e.g., different contents, different levels of customisation, different spatial and temporal scales, different delivery timing).

c) **Producers** with **different skills and expertise** are required according to the corresponding products and services they develop and deliver.

d) The various products and information are **building blocks** with each other.

e) The development and delivery of relevant services and meaningful products that are integrated into people's job practice is an **iterative, participatory and dynamic process** which requires **openness, patience and time**, particularly, but not exclusively, when starting from scratch.

- A **Development** example could be the **Agriculture Master Plan** as currently being developed for the Somaliland Ministry of Agriculture in order to start developing and implementing the right strategy and action plan for the agricultural development of the region. The main actor here is the Ministry of Agriculture, supported by NGO's and the international community. The information required is typically of the thematic form, such as the land suitability and the land degradation. Here the information will be general, providing overview of the situation, at regional to national scales, and will be reviewed every 2 to 5 years for example.

With all these examples, it is clear that data, information and products act as building blocks with each others (*Figure 1*). In addition, it must be noted that baseline data and information are always required:

a) The thematic understanding and creation of thematic information such as the land suitability and land degradation require the building blocks information such as land use, landform etc.

b) The baseline information is essential to feed the analysis and the creation of thematic products. For example, land use and landform information will contribute to the analysis and creation of land suitability and land degradation information. Climate status of Somalia will require a comprehensive and on going archive of meteorological data.

c) Finally, all products will require some baseline data to provide the correct spatial and other relevant context, such as administrative boundaries, roads, and other infrastructures.

Specialised information:	Floods watch	Water pts & ADW map	Land manag. DSS	
Thematic information:	Soil suitability	Water resources assessment	…	…
Base line data:	Soil	Geology	Rainfall	Irrigation infrastructure	…	…
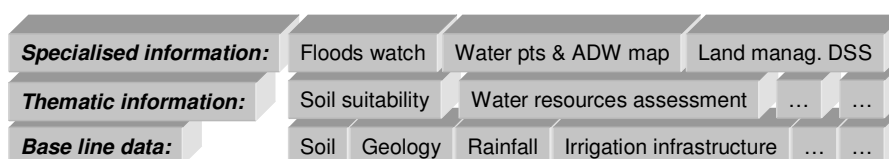
Figure 1. Information foundation and building blocks

Finally, it must be emphasised that an information project like SWALIM must be considered in a **long term framework**, and its regular impact assessed according to each section of the process and the level of iterations already achieved.

6.2   Information services

Within the conceptual framework presented in the introduction above, this section focuses on what SWALIM has put in place in terms of information, products and services, whereas the next section looks at their relevance and impact.

SWALIM's effort during the course of the project, and according to its terms of reference, has essentially been on producing baseline information, to a lesser extent on thematic information, and to a lesser extent again on specialised information, as illustrated by the size and location of the circles in Figure 2 overleaf. Overall however, all the data produced allows for the first iteration to take place, and this a substantial achievement of SWALIM's work.
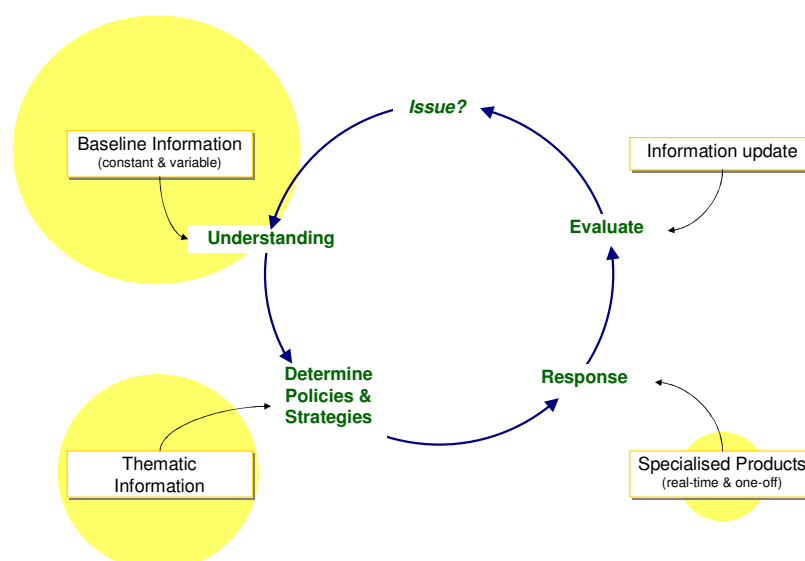
Figure 2. SWALIM's focus to date

6.2.1   Baseline data

Baseline data and information are generic foundation blocks. They can be divided in two main categories: the "constant" data and the "variable" data. As indicated earlier, the former requires little update in time, such as the land physical characteristics (e.g., soil, land form, geology, hydrological network) and the latter requires regular updates (e.g., water sources, irrigation infrastructure, road network, rainfall data).

A lot of SWALIM's work has focused on (re)creating and organising such baseline information that was lost or did not exist for Somalia. This baseline information is not a product that can be passed to anybody, but rather a generic piece of information that will be used by experts for many different purposes. It is an underlying dataset that either gives context (e.g. roads, rivers) or basic information on which to build analysis, to be used by specialised staff. Under this section, data produced does not need much customisation, but rather scientific approach to produce sound datasets. This is exactly what SWALIM has achieved. All the data produced by SWALIM under this section will be relevant to some potential users, whether in the short or the long term, and therefore its impact is important in allowing future analysis and production of thematic and more specialised information.

In some cases, even plain baseline data has already made direct impact, such as the use of geological maps for the preparation of hydro-geological surveys for boreholes drilling by NGOs.

6.2.2   Thematic information

Thematic information is the result of a first analysis of a set of baseline data and ancillary information, resulting in maps and assessment reports.

SWALIM has produced a set of thematic products, according to its initial ToR, such as the soils suitability map, a set of reports including on the climate of Somalia, water resources assessment, large irrigation scheme of Southern Somalia, urban and rural water assessments, flood forecasting and early warning, potential of rainwater harvesting, land resources

assessments, land suitability assessment, land degradation assessment, and remote sensing technique for pastoral resources assessment.

As most of these products have been produced towards the end of the project, they have yet to be used, hence they have not yet had any significant impact. However the following points are worth mentioning, in addition to the findings of the previous mid-term evaluation:

a) Since hardly any information of the kind exists for Somalia, any new information provides a first step, and will have an impact in the sense that any future studies have a first base on which to build on. Overall, SWALIM has contributed significantly to the development of this information base.

b) The general potential usage of these products is often clearly presented. However, the precise way in which some of the reports would be used, and by whom, does not always seem to have been clearly identified beforehand, sometimes leading to studies too broad in scope and/or with fragmented content, and unclear with respect to relevance and/or added value to existing information and knowledge, e.g.,

- The Climate of Somalia report does not make clear of its added value against existing work, such as the atlas of Hutchinson and Polishchouk[23] which includes information on Somalia climate before the war. The SWALIM's study is based essentially on similar historical data resulting in a re-description of a somehow outdated situation, particularly when we know the current climate change trend world wide.

- In the same token, the rainwater harvesting assessment report, even though appreciated by the Ministry of Water, provides a fragmented document in terms of content, for example it provides summary of potential type of rainwater harvesting, mixed with some very detailed description of installation for a limited number of them, making its precise usefulness questionable.

- A study was carried out to assess the potential of remote sensing to assess pastoral resources in Puntland. Whilst some new knowledge may have been gained on those resources in Puntland, the study was very broad in scope, spreading effort across the board into a number of smaller studies, leading to very limited new knowledge on the potential of remote sensing in such contexts, above what is already documented in current literature.

- The report on the inventory of hydro-meteorological data includes a short section on NDVI and RFE, which, to be useful, would need to be more comprehensive, clearly linking the information retrievable from satellite data and such indicators (NDVI and RFE) to the hydro-meteorological variables of interest, as well as indicating pros and cons.

- Landform reports include *aspect maps*, which are intermediary products required to define the land forms. These maps have been extracted from elevation data by an automated algorithm, as is normally done. However, in some instances, the analysis of these published intermediary products clearly show that the automated processing resulted in incorrect information on some maps. There is no discussion of these issues in the report.

c) Ministries in the field have often contributed in some ways in the data collection. However, often a year has elapse before a full report lands on their desk with the frustration that interpretation, analysis and correctness (e.g. water points names) has not benefited from the local knowledge. The ownership of the information is therefore somewhat compromised.

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[23] Peter Hutchinson and Olga Polishchouk (1989), The Agroclimatology of Somalia, Food Early Warning Department of the Ministry of Agriculture of the Somali Republic.

Overall, SWALIM has delivered products on a wide range of subjects (as planned under its project ToR), precise impact of which remains to be demonstrated. While there may have been a general needs for base information in these subjects, SWALIM would probably have been more effective in focusing resources on deeper studies on fewer subjects but meeting first priorities from the stakeholders.

6.2.3   Specialised information

Specialised information is often highly customised information, intended for very specific usage. There are essentially two types of these: i) ad hoc, as requested by a particular user; and ii) monitoring information, requiring real-time or near real-time information, as well as analysis and often some kind of decision support tool and/or model.

SWALIM has succeeded in both these areas.

On the one hand SWALIM has been available for "one stop shop" requests for the creation of one-off specialised products often including a mixture of SWALIM baseline information and the customer's own data, leading to very valuable products having an impact in improved response: for example, UNICEF has been able to make quick decisions on urban water rehabilitation following AWD/cholera outbreaks; and UNHCR has been able to quickly locate settlements for Internally Displaced Persons (IDPs) because of SWALIM Water Points information.

On the other hand, SWALIM's monitoring role resulting in the regular production of Flood and Storm Watch bulletins has been highly valued by all stakeholders and already demonstrated impact in better preparedness planning by the international aid community through the Flood Working Group (FWG), in pre-positioning of both relief stocks and river transport (WFP), and improved resource mobilisation based upon credible flood forecasting (ICRC).

So far, this specialised information has been essentially useful in emergency situation, and with NGOs and other humanitarian actors, the secondary stakeholders of SWALIM. However, SWALIM probably owes its current reputation in large part to its floods bulletins, which are trusted as much more reliable than existing rumours.

As a picture often tells much more than a story, SWALIM's information has consistently been mentioned as a great tool for supporting project preparation, proposition and reporting. As an example, the Togdheer Watershed project used SWALIM's watershed information, amongst others, for it preparation and activity planning.

While it has been noticed by the evaluation that SWALIM products scales do not allow enough precision for detailed planning for local interventions, as reported several times by small NGO projects, these should probably not be the aim of SWALIM, as its primary stakeholders are at governmental level.

6.2.4   Services

It is important to underline that behind the creation of all these information, lies the SWALIM team and organisation, a very strong, professional and essential support ensuring the quality and consistency of the information, as well as the quality and continuity of the services, as illustrates their information management structure (see Annex 4). Everybody involved with data will know that it is a real time consuming leg work to systematically log, check and verify data for quality, reliability, and coherence, which SWALIM does very well. This leads to SWALIM "stamp" being seen as a synonym to "quality" and "reliability". In addition, SWALIM has a culture of openness and data sharing, objectivity and neutrality. SWALIM has systematically being

mentioned as the first port of call for land and water data for Somalia, particularly by the international community.

In doing so, SWALIM also ensures very well the vital role of information repository and institutional memory, one of its project aims.

Finally, SWALIM also indirectly impacts the development of Somalia and even the rest of the region by playing a catalytic role for activities to happen. One example is SWALIM initiative with SIMAC (Somalia Interagency Mapping and Coordination). Another is SWALIM allowing for plug-in activities to take place thanks to the existing capabilities (e.g. the River Basin Management project, the digital aerial survey funded by Swedish International Development Agency (SIDA) under SWALIM phase III, or the current planning to integrate GIS activities with UN-Habitat in Hargeisa).

6.3   What about the users?

As mentioned earlier, SWALIM's long term aim is to impact on actions taken in Somalia in the field of natural resources management. From the above sections (4, 6.1 and 6.2) it is clear that SWALIM phase II contributes to this aim with the development of foundation blocks, while the real impact will only be seen in future activities taking place beyond SWALIM phase II.

Nevertheless, this did not prevent the SWALIM team to keep the users in mind in their work, as illustrate the following examples:

a) A lot of thought and effort have been given to make the information created by SWALIM as widely available as possible through a multitude of formats and forms (Dynamic Atlas, GeoNetwork, Website, CD, office terminal, digital library, etc.)

b) Extensive, useful metadata describing the information products (e.g., irrigation channel information includes working status, rehabilitation agency, dates, plans by rehabilitation agencies, etc.)

c) Participatory stakeholders workshops

d) Specialised thematic workshops (e.g. irrigation and water harvesting)

e) Dedicated dissemination workshops

f) Customised training (simple IT and map reading skills training was created as the gap in that knowledge became clear)

g) Informal consultation and exchange during training sessions and visits to Somalia

h) Newsletters and Features

However, these activities have only gone some way towards a real integration of the users into a dynamic and iterative process of products development, which importance has been described in section 6.1.

The long term primary stakeholders for SWALIM are the Somali government authorities. It is clear that the Somalia context makes it extremely difficult i) to work locally, ii) to engage with the few and under-resourced government staff, iii) to engage with staff wanting solutions straight away, and iv) to work with priorities in constant change due to political and institutional instability. This has often resulted in SWALIM having to essentially "estimate" to the best of their ability and knowledge what will be the priority needs of its primary stakeholders in order to develop and create its products. To some extent, seen within a long term iterative process of interactions between the providers and users (see above section 6.1), this is appropriate.

However, couldn't SWALIM do more to better engage with the users? The evaluation clearly noticed through a series of signs that SWALIM team has very much worked with a "producer" (not to say "sales") mind set. Even at these early stages of SWALIM's long term aim, this has not always benefited the project's potential impact. Here are a few examples:

a) Stakeholders workshops are far and few between.

b) Whilst the dynamics of SWALIM's workshops has improved during the period (with the last Nairobi-based workshop in May 2007 being the most interactive with partners), the agenda is always very much driven by SWALIM as the information producer, and opportunities only exist to "fine tune" what is presented, rather than to question any fundamental approaches/priorities of the project. The partners are generally told what "to expect of SWALIM information", and that to ensure impact SWALIM will "educate people on how to use them".

c) While recommendations from workshop discussion groups include fundamental issues[24], including:

   • Evaluate phase II experience on what information is needed and who needs the information;
   • Improve the feedback mechanisms and analyse the needs of different users;
   • Evaluate the usefulness of information processed and disseminated to the end user; and
   • Categorise information needs of Somali governments and partners into immediate and future needs;

   there is no sign that SWALIM has acted upon these yet. However, the design of phase III does to some degree incorporate mechanisms to better canvas stakeholders' views.

d) Dissemination workshop presentations are not always relevant to the users (e.g. project organisational, technical and/or software matters)[25];

e) The information "portals" (e.g., website, products catalogue) are organised and have content from a producer point of view, making the search for information not straight forward from a user point of view;

f) Information about products exist (e.g. data source, methodology, limitations, reliability, etc.), but needs to be found in the middle of a long report and/or from a long list of metadata only available on the internet (GeoNetwork);

g) Some information layers names carry information about how they were made or where they are coming from (e.g. for some irrigation layers on Dynamic Atlas: "satellite" & "basic") rather than a meaningful description from the user point of view (e.g., "pre-war channels" & "post 2005 channels"); and

h) Newsletters and flood bulletin only have very limited text in Somali, and there is no communication strategy.

Understanding the diversity of the users is a first step towards better addressing their needs. As part of the remit of this evaluation, a survey of SWALIM information users was conducted prior to the field mission to identify: (i) the type of organisations/individuals using SWALIM information; (ii) how the information products are utilised; (iii) the relevance, usefulness and accessibility of such products and training services provided by SWALIM; and (iv) recommendations for improvement. The questionnaire and analysis of the response are included in Annex 8 of this report. The analysis of respondents (mostly NGOs, FAO staff, donors and government) identifies information relating to emergencies and rural livelihoods

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[24] Nairobi-based workshop in May 2007.
[25] Furthermore, the audience at the Nairobi Stakeholders' Workshop attended by the evaluation team was small in number and the engagement limited (but this varies in other locations).

(with more emphasis on water than land resources) as the most critical in the Somalia context. Maps and flood or storm bulletins were the products considered most useful. Issues were raised with respect to the products being too technical, inaccessible and not demand-driven. Although the breadth of the return was limited, it is consistent with the evaluation team's own observations and provides a framework to initiate a more comprehensive survey of information needs by SWALIM.

6.4   Capacity building

For both SWALIM information to have an impact, and SWALIM to be transferred within Somali institutions, capacity building is required both for data users and providers.

SWALIM has carried out a series of activities covering these, such as for i) land survey, data collection and organisation (including comprehensive manuals), ii) basic IT, GPS and map reading skills, iii) GIS, iv) use of information (dissemination workshops). The importance of the training has increasingly been recognised as the project progressed, and, together with the products becoming available, has being increasingly implemented towards the end of the project.

The project has been flexible enough to adapt the training level and content to respond to the demand. It also claims to be a one stop shop for training (with recently a new training request form on the web site). This works and has already been successful because SWALIM training has been of good quality and very much appreciated by its recipients, across the field.

Building the capacity is not simple, as there is a critical shortage of even basic expertise in Somalia. As the project progresses though, department directors start understanding the importance of data and data collection, and consequently become convince on the importance to appoint someone specifically to be trained and do the work. But all this takes time.

However, does the above training demand correspond to SWALIM's aims? There is actually no evidence of SWALIM taking a strategic approach to ensure that capacity building is integrated into activities and systematically works towards the objectives of the project (including recognising the different needs of the users and providers in that context, and consolidating training of primary players).

6.5   Sustainability

SWALIM will become sustainable when completely integrated within Somalia structure, with competent staff. This will obviously not happen before Government authorities are established within a stable and secure environment. Nevertheless, actions can be taken to prepare SWALIM for a move within Somalia structure in due course.

In its implementation, SWALIM has already realised some of these actions:

   a) On a technical point of view (data bases, GIS, internet), SWALIM team is working with potential transfer and evolution in mind, by making technical choices to ensure compatibility and evolution by using international standards, FAO-free software, locally owned licenses, and open source software. Would SWALIM funding disappear, these would allow for DEPHA (Data Exchange Platform for the Horn of Africa) to host most of SWALIM's data as is.

   b) SWALIM is training and relying on existing networks for the maintenance and operations of rain and river gauges.

   c) Establishment of three liaisons offices in Somalia.

Reaching sustainability will require, amongst others:

- Stage 1: Engagement in product development, leading to greater ownership and information usage;

- Stage 2: Capacity to develop products, leading to independence and generation of future information.

While SWALIM presence in the field is already seen as generating enthusiasm and motivation for the local ministries to move forward, SWALIM should engage more activities leading towards these stages. This means having a much more sustained presence in the field, giving more responsibilities and freedom to the liaison officer, and for the technical part of SWALIM in Nairobi to progressively adopt more of a back-stopping function in support of decentralised offices.

7   Discussion and Conclusions

Despite the very challenging situation in Somalia, SWALIM has produced data/information covering a wide range of subjects, providing an overview of Somalia's natural resources. This has been achieved by applying a good trade-off between project resources, geographical coverage and level of detail. Since the availability and/or existence of data/information for water and land resources in Somalia was extremely limited before the project, the production and organisation of information is a very significant improvement.

To assess the relevance and therefore the real impact of this improvement, there needs to be sufficient analysis of the target audience and the type of information required as well as the utilisation of that information, which is not the case yet. This situation is partly the result of project activities being geared essentially to the **production** of information and partly the result of a **limited user base** at government level in Somalia. In view of this situation, the SWALIM team has done justice to the activities designed for Phase II. SWALIM has reached a critical level of data/information and technical expertise, which has led to its recognition and sound reputation for being the first port of call for land and water information for the international community working in Somalia and the sub-region.

While throughout the project the team mind has increasingly evolved towards end-user relevance of information, its approach has still been essentially from a "producer" point of view, with a tendency to go one-way: Project → Dissemination.

In order to move towards SWALIM's long term purpose: "*better informed policies and decisions making*" (phase II) and "*improved information management and decision support systems*" (phase III), several important issues need to be addressed, linked to the discussion presented in section 6.1:

a) For the information to be integrated into the work practice of **users**, there is the need for:

- The information and service to be **relevant** to its user and usage, e.g., appropriate content and format,

- The user to feel a certain degree of **ownership** for the information produced.

b) Different **steps in the decision making process** require different **types of information** and services, which in turn require different **types of producers**.

c) How will SWALIM move from a project to an integrated service within Somali institutions?

The production of quality and relevant information is a **continuous, iterative and dynamic process**. An important function of SWALIM should be to develop, apply and progressively pass on tools and mechanisms to allow the sustainability of that **process**.

The transfer of SWALIM's functions as a project to Somali institutions must importantly be seen also as a process, which may even include some trial and error approaches, different functions being transferred at different speed, as the capacity increases.

SWALIM should be seen as three main functions:

a) Repository, institutional memory, training and technical backstopping

b) Facilitator

c) Information service provider

These functions are all necessary to reach SWALIM's aim, and they will be so whether at a SWALIM project level, or through the integration of SWALIM within Somali institutions.

So far SWALIM has essentially covered functions (a) and (c) above.

The first function (a) is the backbone of the service. It ensures baseline information, with basic quality, coherence and standards. It also provides the basic technical backstopping in terms of IT, GIS and data management, with its associated training and capacity force. It is the common denominator to all thematic applications.

The third function (c) corresponds to the actual delivery of the information, from flood bulletins to decision support systems for land management for example. These information services will initially be delivered by the SWALIM project, but progressively this capacity and responsibility should be developed and assumed by an appropriate local institution. And there may be many of them. For example, a decision support system producing land information to support land management strategies may be run by the Data Centre in the Somaliland Ministry of Agriculture, or the creation of flood bulletins may in the long term be run by NERAD in Somaliland or by a National Meteorological Services.

The second function (b) is there to foster the engagement of the users and allow for an iterative process of thematic information services design, development, implementation and usage. The facilitator's role is to be the interface between the science/technique and the users, developing common understanding on both sides, and facilitating the creation and development of appropriate information and decision support systems. This will be key to the progressive capacity building and transfer of functions to the Somali institutions, as well as to the long term aim of SWALIM.

The more relevant the information produced becomes, the more demand, utilisation and impact there will be. SWALIM must remain very focused on what it can achieve with limited resources and ensure that it does not assume responsibilities that could be detrimental to the quality and reliability its services. To be realistic, SWALIM cannot be a specialist in all subjects. As a consequence, SWALIM must pay particular attention to strengthen its skills base towards the facilitation role. This does not require staff to be academic experts in one field, but rather requires staff of a "generalist" nature, capable of **understanding** the science (e.g. soils), and techniques (e.g. data collection, GIS and decision support tools), as well as understanding of specific issues (e.g. floods preparedness, pastoral resources management), the decision making process and its requirement in terms of information (content, scale, timing, format). The staff will therefore be able to work with the specialists (information users and providers) through a dynamic and iterative process to create relevant decision support systems and associated information.

This also means that SWALIM may at times have to rely on external expertise to support its facilitators where specialised expertise is needed. We understand that this goes against the current SWALIM thinking, which is rather to build all specialised expertise in-house. However, SWALIM cannot be an expert in all subjects, nor maintain a state-of-the art level of expertise and at the same time be that champion facilitating the process with the users of developing relevant information. SWALIM should rather be encouraged to create partnerships with relevant experts group to get support in its various themes. In this way, SWALIM will be very flexible in its development and adaptation to an unpredictable context and changing priorities.

8   Recommendations for SWALIM Phase III

SWALIM phase III has been presented to the stakeholders[26] as the bridging phase that will move from information production to application, and that will involve users and stakeholders within a five year vision to see SWALIM, or part of it, transferred to Somali authorities. This mind set is acknowledged, welcomed, and essential for SWALIM to reach any substantial impact. However, the present design of Phase III falls short of ensuring that it be so.

The general content of SWALIM phase III has been discussed through IMCC meetings at field level and in a participatory stakeholder workshop in Nairobi[27], ensuring that the main themes covered are agreed. To ensure its success in line with its long term aim and discussions presented throughout this report, the implementation of Phase III must pay particular attention on the **HOW** it is carrying out all its activities. This is where most of the following recommendations fall[28].

8.1   Ensuring greater relevance and impact of information products and services

It is critical that SWALIM works more effectively with the users, developing products in a participative way with them and according to **their agendas**. To achieve this, the following recommendations are provided:

8.1.1   SWALIM Liaison Offices in Somalia

a) **Enhanced capacity**. SWALIM offices in Somalia are the ideal conduit to better engage with the users in country. However, they must assume more responsibility. They must be very pro-active and play a facilitator role (see section 7). To do so, the Liaison Offices and their staff must first have a clear mandate to that effect, including more authority and independence from Nairobi SWALIM Head Office. The Liaison Officers should for example report directly to the CTA. Staff capacity must be increased and developed (including international expertise where necessary initially) and have the appropriate facilitator and technical skills (including training).

b) **Data collection.** Liaisons Offices must be the data collection interface for SWALIM rather than Nairobi Head Office.

c) **Going through the loop once.** Initially, each Liaison Office should focus on one or two relatively simple applications of relevance to their region and concentrate on working through the whole process of identifying, defining, designing, implementing, producing and using a particular thematic information service. Even if simple initially, this would demonstrate the feasibility of producing and using useful information and trigger the whole process. One focus for example could be on water points and water use planning and management in Somaliland.

8.1.2   Inter Ministerial Coordination Committees (IMCC)

a) **More strategic role.** The IMCCs are the obvious link with primary stakeholders at the field level to promote the iterative and participatory development of products at field level. The IMCCs should meet on a more regular basis (e.g. four times per year) and be

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[26] SWALIM Dissemination Workshop, Nairobi, 18 October 2007.
[27] SWALIM Stakeholders Workshop, Nairobi, 23 May 2007.
[28] Other pointers can be found throughout this report.

more clearly institutionalised within the project framework by participating in the Project Steering Committee (where feasible through the attendance of the IMCC chair) or at very least contributing to the agenda of the PSC. The IMCC will identify and agree on one or two priority applications to be undertaken at a decentralised level during phase III.

b) **Working Groups.** The evaluation recommends the establishment of working groups under the auspices of the IMCC that meet on a very regular basis (at least monthly). It is envisaged that one working group per application take on the actual participatory process of going through the loop once (see above). A working group would be composed of a small, dedicated team including relevant staff from the SWALIM Liaison Office, relevant staff from government ministries, as well as other technical institutions and NGOs where applicable. At the beginning, such a group could just be made of a couple of people, e.g. one user and one SWALIM staff. The important part is to have an active and participative development of applications. The working group would essentially be led by SWALIM and would assume responsibility for developing the application, reporting regularly to the IMCC.

8.1.3   Monitoring

As the relevance and the impact of the information services are essential to reach SWALIM's long term purpose, it is recommended that monitoring of the information services must become an integral part of SWALIM's development and implementation process.

d) **Formal**: FAO Somalia should develop the capacity to regularly monitor the impact all its interventions have on target populations in order to determine the effectiveness and relevance of projects (including information services such as SWALIM and FSAU)[29].

e) **On-going**: SWALIM should undertake regular analysis of the records it maintains pertaining to information request and/or usage of office and liaison office facilities. Such analysis should include feedback from users on what information they used, how they used it, what difference it made to their job, and how they would improve it.

f) **Reporting**: Impact monitoring information should be built into the six monthly SWALIM Progress Reports and be a key issue for the agenda of the Project Steering Committee.

8.1.4   SWALIM Head Office

SWALIM Head Office capacity should progressively adjust as the focus is shifting towards the users. Ultimately, its role should essentially be to ensure the overall strategy of SWALIM, develop any common ground between the Somali regions, and in particular maintain the repository and backstopping function for the Liaison Offices in country. However, whilst there is a strong presence of the international community for Somalia in Nairobi, it is recommended that the SWALIM Nairobi Office also performs a liaison function like that of its Liaison Offices.

SWALIM should continue to engage with existing coordination mechanisms (which include government, donors, UN agencies, NGOs and civil society) particularly at the Nairobi level and including SSS sectoral committees[30] and both SSS and IASC working groups for the purpose of: (i) better understanding information gaps and priorities; (ii) developing information products

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[29] Recommendation made in the Evaluation of FAO Emergency & Rehabilitation Assistance in the Greater Horn of Africa (2007).
[30] SSS Food Security & Rural Development Sectoral Committee and Water, Sanitation & Hygiene Sectoral Committee should be key mechanisms with which SWALIM engages.

in consultation with users; and (iii) supporting the role of such mechanisms by sharing forecasts/predictions and dissemination of information products.

8.2   Adopting more strategic approaches

8.2.1   Training

Training activities must be planned strategically so that they are clearly aimed at building the capacity required to deliver the project results and with particular priority towards progressively transferring SWALIM functions to Somali institutions.

8.2.2   Communications

A communication strategy for SWALIM information products and services must be developed based upon an analysis of different categories of users and the type of information products they require. For example, more information transmitted in Somali language as well as using local radio network (e.g. BBC Somalia) should be encouraged.

8.2.3   Institutional linkages

SWALIM must improve as much as possible effective linkages and partnerships with existing institutions, projects, and initiatives. Obvious examples include:

   a) FAO Food Security Analysis Unit (FSAU) and FEWSNET: both FSAU/FEWSNET and SWALIM combine to provide critical information on food security, nutrition, livelihoods, land, water resources and climate in Somalia as well as contributing to early warning systems. There has to be a clear allocation of roles and a more strategic relationship between the two projects, identifying where information sharing (baseline data), joint collaboration (early warning, seasonal and rapid assessments) and shared services (such as administration, GIS, data repository, reference library, field capacity) can achieve mutual gains and cost effectiveness for the benefit of Somalia.

   b) UNDP was probably the pre-SWALIM repository for most of the land and water statistical and spatial data (UNDOS/DIMU) and therefore a key information provider. Given its substantial engagement in flood canals and irrigation infrastructure, its collaboration with SWALIM and use of SWALIM information could be more significant.

   c) UN-HABITAT: the current plans to create a regional resources and GIS centre for Somaliland with UN-HABITAT sounds good in term of efficiency. However it must be integrated within SWALIM organisation and in particular the liaison office to ensure there is complete complementarities between the activities.

   d) National Meteorological Office: Many SWALIM activities are of a meteorological and operational nature, which would normally be carried out by a National Meteorological Office. While such office does not exist, SWALIM should seek more actively support from the Kenyan Meteorological Office and World Meteorological Organisation, as well as with any existing regional initiatives (e.g. ICPAC, Tiger[31], …)

   e) Other initiatives: SWALIM has to ensure to take full advantage of other existing initiatives. For example there is great potential to collaborate with the new AMESD[32]

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[31] Earth Observation for Integrated Water Resources Management (TIGER) - http://www.unesco-nairobi.org/TIGER.htm
[32] http://www.eumetsat.int/Home/Main/Media/News/030349?l=en

programme (African Monitoring of the Environment for Sustainable Development), funded by the EC, with its Eastern Africa regional office based in ICPAC.

8.3   Greater focus and clarity in roles

8.3.1   Project Task Force

The evaluation recommends that

a) The **Project Task Force remit** must be established. The terms of reference of the PTF must be clearly defined specifically for SWALIM, and in particular the functions of monitoring, advice and technical clearance must clearly be specified in terms of the extent of their responsibility (and respectively those of SWALIM).

b) A **strategic plan** is tentatively defined at project inception for the technical backstopping input, according to the respective responsibilities, as well as the foreseen project activities and needs.

8.3.2   SWALIM's organisation and structure

The evaluation recommends that SWALIM adapts further its organisation and structure (already started with SWALIM Phase III organisational chart) to reflect the way it works and its main functions (see section 7). The figure below illustrates how the evaluation sees SWALIM working through three main areas: i) its core support service (inc. repository, GIS, training, etc.), ii) its "facilitator role" with the liaison offices, and iii) its themes dealing with specific applications and products services.
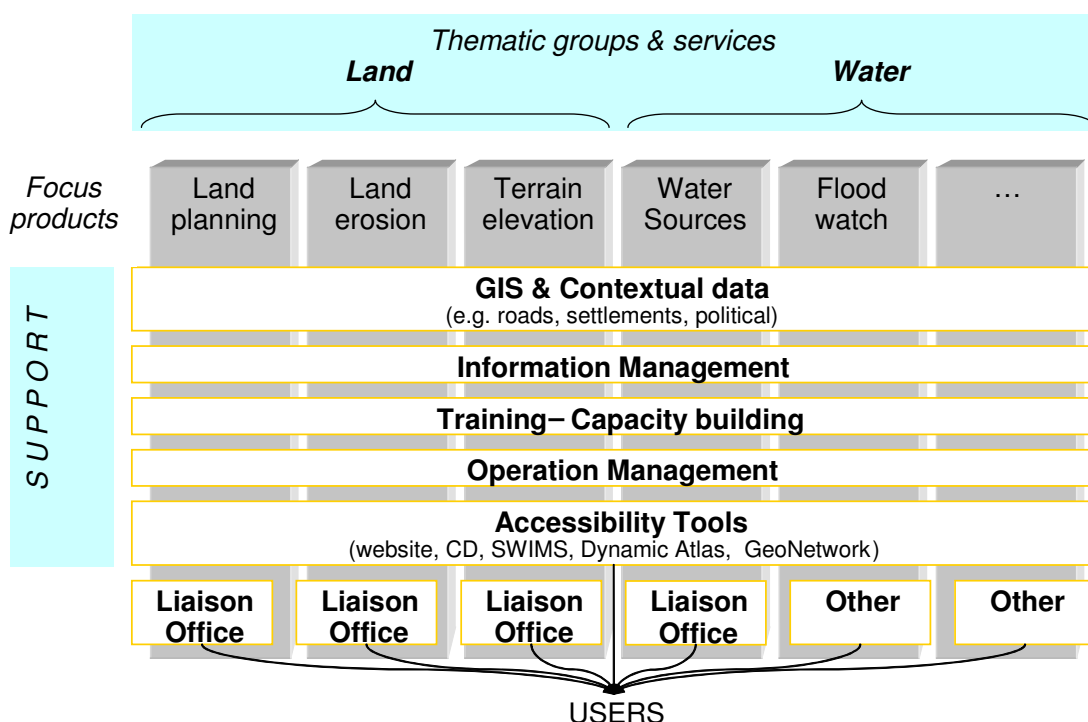
8.3.3   Product information

a) **Associated information.** Products must be accompanied with a short user-friendly note summarising the minimum metadata and methodological information the users need to make appropriate use of the products, such as the product limitation (i.e. applicability), reliability and methodological approach, making reference to other documents, if appropriate, for more exhaustive description.

b) **Technical clearance**. While products should continue to be placed on the website in draft form for the purpose of gathering comments, they must clearly indicate when they have been cleared, i.e. fit for purpose, and when they are still in a draft form.

8.3.4   River Basin Management project separate identity

SWALIM should maintain its focus and mandate on information management specifically for the land and water sectors, not in any way compromising its capacity or credibility by assuming other roles or responsibilities. Whilst the River Basin Management project (RBM), which currently draws upon capacity developed by SWALIM for SWALIM, focuses on information which lays within the remit of SWALIM, it also includes engineering design and barrage rehabilitation activities outside SWALIM's mandate, which should have its separate identity as with other infrastructure projects implemented by FAO in Somalia (ARDOPIS).

ANNEXES

Annex 1.   Evaluation Terms of Reference

Terms of Reference for the Final Evaluation of
GCP/SOM/045/EC - Somalia Water and Land Information Management (SWALIM) Project - Phase II

1.   Background
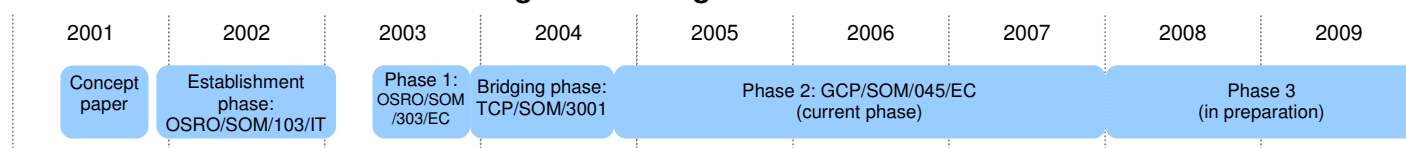
1.1   Presentation of the programme

The Somalia Water and Land Information Management System (SWALIM) is an information management programme on land and water resource whose purpose is to promote improved policies and relief and rehabilitation interventions by governmental and non-governmental institutions and agencies operating in Somalia, with the overall objective of contributing to sustainable natural resources management (NRM). In addition to supporting NRM activities, a great part of the information products produced by SWALIM is also used by donors, UN agencies and NGOs providing relief to populations affected by floods and droughts.

In the current absence of a central government, FAO acts as a custodian of the information collected and produced by SWALIM, for hand-over to national authorities at a later date.

The programme is in line with various strategic papers, including the sector strategies in Food Security and Rural Development, and Water, Sanitation and Infrastructure drafted by the Somalia Aid Coordination Body (SACB, now called the Somalia Support Secretariat or SSS). It is also in line with the EC Intervention Strategy for Rural Development and Food Security in Somalia, and the "Broad Vision and Medium Term Implementation Strategy for Water and Land Information for Somalia", produced by EC and FAO. The programme has been implemented through numerous projects[33] since 2001 (Figure 1):

- A Concept Paper developed in 2001 with financial supported from UNDP (US$ 35 000).
- An establishment project funded by the Italian Cooperation, OSRO/SOM/103/ITA - Establishment of a water and land information management system to support relief and rehabilitation interventions for flood and irrigation (Dec 2001 - Jan 2003, US$310,000), itself building upon initial work carried out by the Africover Project on land cover mapping.
- Phase I (OSRO/SOM/303/EC - Water and land information management system to support relief and rehabilitation interventions, from April to November 2003), funded under the EC Special Framework for Assistance to Traditional ACP Suppliers of Banana (€450,000).
- A bridging project (TCP/SOM/3001 - Bridging Assistance for the Somalia Water and Land Information Management Project) was funded from FAO own funds in between Phase I and Phase II in 2004 (US$105,600).
- The current "Phase II", GCP/SOM/045/EC, from October 2004 to September 2007 and probably extended to December 2007 (US$4,781,208 mostly from the EU, with 5% coming from Unicef to finance work on drinking water).
- A Phase III is in preparation and should extend over 2008 and 2009.

Figure 1 – Programme Timetable

2001	2002	2003	2004	2005	2006	2007	2008	2009
Concept paper	Establishment phase: OSRO/SOM/103/IT	Phase 1: OSRO/SOM /303/EC	Bridging phase: TCP/SOM/3001		Phase 2: GCP/SOM/045/EC (current phase)			Phase 3 (in preparation)

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[33] In these TORs, the term "programme" refers to the entire endeavour while the term "project" relates to particular funding tranches.

1.2   Major activities and outputs to date

The start of Phase II, scheduled for 1st October 2004, was somewhat delayed by a late arrival of funds (December 04) and of the new Chief Technical Advisor (July 05). These, combined with operational and access constraints encountered in Somalia[34], have contributed to overall delays in the preparation of the information products scheduled in the project workplan. The speed of progress increased significantly since then, but to date the Phase II project is still behind schedule. Major outputs to date include:

1.   Archive of hundreds of historical reports, data and information on land and water resources in Somalia collected and digitized.
2.   Archive of climate and river flow data collected and digitized.
3.   Website established since mid-2006, production of the Information Resources CD series started, regular newsletters ("SWALIM Updates") issued.
4.   Two Liaison Offices established in Hargeisa and Garowe.
5.   Numerous workshop and capacity building initiatives in IT, GIS, SWIMS, remote sensing, etc.
6.   Irrigation infrastructure database and status report of medium / large scale irrigation infrastructure for the riverine areas of the Juba and Shebelle rivers.
7.   The Somalia Water Sources Information Management Software (SWIMS, a simple database for the collection of GIS data on water points such as wells or boreholes) developed and introduced to interested NGO partners, who are currently testing it.
8.   Feasibility studies for a flood forecasting system (for Juba and Shebelle rivers) and for a flash flood warning system (for run-off water).
9.   50 rain-gauges, 6 manual river gauges, 4 telemetric weather stations and 4 telemetric river gauges being established on the Juba and Shabelle, with partnership agreements passed with NGOs operating in the area to ensure maintenance and data collection.
10.   Weakly flood bulletins and 3-day rainfall forecasts prepared and disseminated regularly since 2006.
11.   Extensive field work on land degradation assessment, leading to land degradation maps with recommended interventions for Somaliland.
12.   Land suitability assessment reports, maps and GIS database for the agro-pastoral areas of Southern/Central Somalia and selected areas in Somaliland.
13.   A report on the "Application of Remote Sensing Techniques for the Assessment of Pastoral Resources".
14.   Consultative workshops: the Somali Experts Workshop held in Nairobi from 30th January to 1st February 2006, and the Stakeholder Workshop held on 23rd May 2007.
15.   Relations with SACB (now SSS) and partner organizations in Nairobi were established or strengthened. SWALIM is one of the most active participants in the Water, Sanitation and Infrastructure Sector Committee and in the Floods Working Group.
16.   Contributions to the Joint Needs Assessment coordinated by the World Bank.
17.   A drawing competition among Somali schools on the issue of natural resource management, with the best drawings published in the 2007 SWALIM calendar.
18.   A proposal for the "Support to the Sustainable Management of the Shebelle and Juba Rivers in Southern Somalia" prepared for EU funding to support the long-term sustainability of on-going irrigation rehabilitation projects and including: short-term interventions to facilitate the supply of irrigation water in the main canals; support to a river basin management system; and information collection and processing. The project (GCP /SOM/047/EC - Support to the Sustainable Management of the Shebelle and Juba Rivers in Southern Somalia, $1,812,000) has been implemented since August 2006 and is considered an extension of SWALIM.

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[34] The escalation of the conflict between the Transitional Federal Government and the Union of Islamic Courts in Southern-Central Somalia seriously jeopardized activities in 2006 and 2007 and precluded the establishment of a Liaison Office in the south-central region. Difficult communications with Somali authorities also resulted in a number of delays. In general, planning is a risky exercise in Somalia and a fair degree of flexibility is called for in project management.

Technical and financial Progress Reports were produced and submitted to the donors half yearly. A Steering Committee has been established since the beginning of the programme, with membership from the Delegation of the European Commission, UNICEF, FAO, government representatives, and relevant SACB (now SSS) committees and SWALIM management, and has met regularly to review progress reports and work plan, and make recommendations with regard to future activities to help SWALIM meet beneficiaries' needs.

In 2006-2007, the emphasis has been placed on "bringing SWALIM closer to the ground" (it was long relying only on satellite imagery) by establishing SWALIM-specific Inter-ministerial Coordination Committees within the Puntland and Somaliland governments through two Memorandum of Understanding, and by working more closely with local administrations in collecting field-level data (e.g. for the land degradation survey in Somaliland). Some relations have also been established with the Transitional Federal Government (TFG) in Southern-Central Somalia but no liaison office yet for security reasons. An aerial photography operation over the Juba and Shebelle basins has recently been planned and pledges received from Sweden, with a view to provide irrigation projects active in the area with more precise imagery and elevation maps than what satellites can provide.

The present phase is due to close in September 2007, but a no-cost extension to the end of 2007 is anticipated and will probably be granted by the donors. A project proposal has been drafted for the third phase and is in the process of finalization. The third phase expands on achievements of the second one (e.g. finalization of the river and flash flood forecasting systems) and includes a number of new activities, such as work on water quality.

After two rounds of talks with senior ministry officials in Hargeisa, Garrowe and Baidowa, a Stakeholder's Workshop held in Nairobi on 23rd May 2007 2007 reviewed and validated the plans for the third phase. A number of ideas were suggested for consideration in SWALIM III or in the following phase (e.g. map the charcoal burning areas) and will require careful consideration. Participants in the Stakeholder's Workshop stressed the need to elicit more regular feedback from users and analyse the information needs of different user types (ministries, NGOs, UN agencies, etc.).

2.   Purpose of the Evaluation

A mid-term evaluation was conducted in November 2006 and made a number of recommendations as per the future emphasis of the programme. However, the evaluation did not entirely fulfil all the expectations of programme stakeholders, notably in reviewing the programme with a critical outlook.

As a result, it was decided by FAO in consultation with partners to complement the mid-term evaluation with a final evaluation of Phase II looking forward to the start of Phase III in a strategic manner, in order to: a) analyse existing information collected by the mid-term evaluation and other processes[35] to come to evaluative conclusions about the programme's relevance, efficiency, effectiveness and impact and sustainability, and on how these could be improved during Phase III; and b) map out the expectations of beneficiaries and stakeholders and give directions how to meet them.

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[35] An evaluation of FAO's emergency and rehabilitation assistance in the greater Horn of Africa was conducted by the FAO Evaluation Service in April-May 2007 and devoted some attention to SWALIM (analysis of web traffic statistics, visit of the Hargeisa liaison office and of governmental stakeholders in Somaliland). This information will be availed to the final evaluation team.

3.   Scope of the Final Evaluation

The mission will assess the:

   a) Relevance of the project to the relief and development priorities and needs of the country, overall as well as by major output (see point d below). In particular the strategic importance and the priority of the different components shall be analysed in the context of Somalia needs in terms of emergency, development and natural resources management. The evaluation should consider that needs by far outpace available and anticipated resources and that the political and security conditions will remain an important constraint in the foreseeable future.
   b) Project design: review and identify significant design issues, if any, in the clarity, realism and logical consistency of the objectives, intended outputs, managerial and institutional framework and resources for Phases II and III as described in the project proposals.
   c) Efficiency of project implementation including: staff management approach; efficiency of data collection, analysis and dissemination processes; and accuracy of the generated information. The evaluation should also consider if the SWALIM model of a stand- alone project is the optimal solution or if combination with other projects (for example FSAU) could be more efficient.
   d) Effectiveness and usefulness of project results: based on a rough typology of users and users needs[36], provide an assessment of the quality and relevance to users' needs of key outputs produced to date (SWIMS; irrigation infrastructure assessment; network of rain and river gauges; land degradation assessments; Website, flood bulletins and other elements of the SWALIM "Client Service Platform"; capacity building activities; liaison offices).
   e) Likely effectiveness and timeliness of new products scheduled for Phase III: can all the new ideas work or are some of them overly ambitious given the current context of the country and possible evolutions over the next two years? Are they all equally relevant and urgent?
   f) Cost-effectiveness is a difficult issue to grasp for information project, but the mission could usefully point at ways of working or different product mix that may decrease costs without hampering effectiveness or improve effectiveness at no additional cost, and evaluate the actual and potential synergies between the two themes (land and water). Are there any advantages in considering the two themes together in the same project? Can issues be investigated jointly and data collection processes combined (field surveys for instance)?
   g) Partnerships and the quality of relationship with key stakeholders; possible cooperation with similar projects (notably FSAU) and/or redundancies with information collected by partners and how to resolve them; contributions to / participation in the relevant coordination forums.
   h) Future prospects and required adjustments for sustaining and improving the project's results during and after Phase III, notably in terms of reviewing implementation priorities and strategies for information collection, analysis and dissemination, improving the usability of SWALIM products, and reviewing of the realism of the timeframe and budget to achieve proposed results.
   i) Sustainability and, in particular, possible exit strategies when the political and security situation of the country stabilises.

4.   Methodology

The evaluation will first comprise a desk review of the vast amount of documentation available, undertaken by consultants at their residence, followed by a short mission to FAO Headquarters to meet with key stakeholders in the Organisation.

The main purpose of the mission being to assess and improve the programme's relevance, efficiency and effectiveness, it will be important to work very closely with the project staff in Nairobi, to assess strength and weaknesses in current products and the information generation processes

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[36] Including the ARDOPIS and River Management projects funded by the EU and implemented by FAO and NGO partners.

that led to them and establish sharper priorities for the future. This could be achieved through a variety of consultative approaches such as group interviews, individual interviews, SWOT analyses, etc.

This being said, Phase II achievements should be as much as possible quantified using numerical indicators, to complement the mid-term evaluation. For example, how many water points have been recorded in the SWIMS database? How many hectares of land were considered in the different studies at different level of detail? How many national current or potential national officers were contacted or received training? How many potential users were reached by the information; etc.

The previous mid-term evaluation and other similar processes have already collected much information through extensive consultation with partners. Web access statistics have already been collected and analysed by the recent evaluation of FAO's emergency and rehabilitation assistance in the greater Horn of Africa. The present final evaluation should be careful not to overburden users and stakeholders and hence rely largely on information already collected.

However, a particular emphasis in the final evaluation is placed on assessing "outcomes", i.e. how and for what purpose SWALIM products are used or could be used, by eliciting feedback, perceptions and expectations of actual and potential users. It is thus proposed to develop a simple Web-based questionnaire to elicit users' feedback, coupled with targeted focus group discussions in Nairobi (including if possible with concerned Somali officials from the TFG) and complemented by one field mission to Hargeisa and/or Garrowe to meet with national stakeholders and visit a liaison office. One or several meetings should also be held with members of the project Steering Committee and relevant SSS committees in Nairobi.

A debriefing with key stakeholders (e.g. project staff, FAO management in Nairobi i.e. FAOR + REAO, donors, related FAO projects) will be organised at the end of the mission to validate findings and recommendations.

5.   Composition of the Mission

Given the emphasis of the final evaluation, it is envisaged to hire a two-member team composed of:

-          One team leader with extensive experience in evaluation of early warning, information and emergency programmes, familiarity with FAO structure as well as with the Somali context, and strong strategic and communications skills.

-          One team member with extensive experience in the collation and processing of information on natural resource and their use, information technologies, remote sensing and GIS, and in eliciting users' needs and expectations so as to better serve them. Knowledge in water resources management would be an asset, as the water theme was not extensively covered during the previous evaluation.

Mission members should be independent and thus have no previous direct involvement with the project either with regard to its formulation, implementation or backstopping.

6.   Timetable and Itinerary of the Mission

The mission will take place in October 2007, with approximately 3 days in Rome for an initial briefing, 10 days in Nairobi, 3 days in Hargeisa and/or Garowe, and 3 days for travel. The consultants should be given ample time beforehand to familiarize themselves with the existing documentation.

7.   Consultations

The mission will maintain close liaison with the Representatives of the donor and FAO, the concerned national agencies, relevant NGOs, as well as national and international project staff. The mission should feel free to discuss with the concerned stakeholders anything relevant to its assignment. It should arrive at clear evaluative judgements based on strong evidence, in full independence. However, the mission is not authorized to make any commitments on behalf of the donor or FAO.

8.   Reporting

The mission is fully responsible for its independent report which may not necessarily reflect the views of the donors or FAO. The report will be completed, to the extent possible, in the country and the findings and recommendations fully discussed with all concerned parties and wherever possible consensus achieved.

The mission will also complete the FAO Project Evaluation Questionnaire.

The mission leader bears responsibility for finalization of the report, which will be submitted to FAO within three weeks of mission completion. FAO will submit the report to the donor together with its comments/management response.

Annex 2.   SWALIM Phase II Revised Logical Framework

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions
Overall Objective	**Improved water and food security and sustainable use of natural resources for the people of Somalia.**	Progress towards attainment of the Millenium Development Goals 1 and 7 (international and locally adjusted) countrywide by 2015.	Reports of Somali Watching Brief, of SACB and international agencies (including UNDP, FAO and UNICEF) and future/relevant Somali authorities.	* Security situation allows development interventions and setting up the required information management environment.
Project Purpose	**Water and land policies and interventions are improved.**	* Water and land information system widely adopted by agencies/users for reporting/planning. Number of agencies using SWALIM. Number of documents refereeing to SWALIM information products and services. ** * Number of international and Somali development agencies, including Somali administration, that use SWALIM data bases and DSS for their decisions on land and water related project.** * Timeliness and efficiency of emergency relief improved.	* Donor reports * Reference to SWALIM services in intervention documents (at strategic, programme and project level). * SACB committees and working group reviews. *Feedback from Somali authorities and communities. * External evaluation	* Information services are used by planners & implementers and professional standards in implementation are met. * Interventions contribute towards the goal and the funding of interventions is commensurate with the needs in Somalia. * Political environment and security allow for conducive working conditions in Somalia. * Information is widely recognized as a priority for effective decision making.
Results	**Result 1: Access to, and dissemination of, information products and services improved.**	**OVIs Result 1** * Number of computers installed, software applications developed, hard copy applications distributed, books and studies available in the library. * Number of stakeholders / participants of the various workshops that are aware of the information management services of SWALIM and use the SWALIM products.	**All results** * Project Progress Reports that summarize information products and services (including internal evaluation of performance). * Project Steering Committee minutes. * SACB Committees and Working Group Reviews. * Records of the users of the Client Service Platform	**All results** * Human resources are available at a reasonable cost necessary for the achievement of work schedules, and technical and professional standards * System of quality assurance required to verify the information products and services are in place. * Materials and equipment are available at reasonable cost.

	Activities Result 1: The information management infrastructure, including software, hardware, website and the Client Service Platform, is operational by May 2006.
	1.1 An expanded IRU is fully developed by August 2005.
	1.2 A client service platform has been established by November 2005 and client service needs monitored on a monthly basis throughout the course of the project.
	1.3 SWALIM website has been established by November 2005 and developed further throughout the course of the project.
	1.4 Information management (IM) standards, procedures and guidelines for data and information storage, processing and access have been established within SWALIM and with partners by March 2006.
	1.5 15 people have been trained on dynamic atlas and IM standards, procedures and guidelines annually.
	1.6 A.) A one day participatory stakeholder workshop has been held in Nairobi in September 2005 for about 60 participants.
	        B.) A follow-up expert meeting and training has been organised for Somalian senior government experts in November 2005.
	        C.) Prior to the project mid-term review a one day workshop is held to review the Vision/Strategy, in relation to partners' needs and the
				* Access to project sites is assured
				* Interagency collaboration is serious and supports inter-sectoral programming. Partner contributions are assured.
				* Project administration and financial controls are well established.

	current situation in Somalia. 1.7 The Steering Committee has met by month 3, and thereafter at least every 6 months		
Results	**Result 2: Essential baseline information produced, involving stakeholders.** 2A. The availability of information products and services to support the **NEED and OVERVIEW for WATER and LAND INTERVENTIONS** has been improved in terms of quantity, quality and coverage 2B. The availability of information products and services on **WATER and LAND for AGRICULTURAL PRODUCTION** has been improved in terms of quantity, quality and coverage 2C. The availability of information products and services on the **SERVICE DELIVERY of URBAN/RURAL WATER SUPPLIES** has been improved in terms of quantity, quality and coverage 2D. The availability of information products and services on the **SUSTAINABLE MANAGEMENT of RENEWABLE NATURAL RESOURCES and the ENVIRONMENT** has been improved in terms of quantity, quality and coverage such that 2E. The availability of information products and services on the **DEVELOPMENT of INTEGRATED WATER RESOURCES MANAGEMENT (IWRM) PLANS** has been improved in terms of quantity, quality and coverage 2F. The availability of information products and services to support EMERGENCY RELIEF INTERVENTIONS has been improved in terms of quantity, quality and coverage	**OVIs for Result 2** * The "Land and Water Resources of Somalia" report has been presented to and used by all relevant Somali and international development organizations by the end of the project. * A status report on medium to large scale irrigation infrastructure, based on a new SWALIM irrigation database, survey data and climate archive, is ready and used by relevant EC funded projects by November 2006. * The physical land suitability analysis report for the agricultural areas and a revised land cover map with monitoring vegetation changes for the whole of Somalia is ready by March 2007. * The Somalia Water Sources Information Management software has been installed and used by all relevant Somalia ministries and agencies involved in the development of water sources * The assessment report on the four urban water supply systems as set in the MoU with UNICEF is ready in good quality by March 2007. * The Land Degradation and Vulnerability Assessment Report is presented and the proposed Framework adapted by the relevant organizations by November 2006. * The "Land and Water Resources of Somalia" assessment report, based on the catchments and on the Juba / Shabelle flow archive have been completed by June 2007. * 150 Flood Watch bulletins are distributed on a weekly basis in the rainy seasons and used by all interested stakeholders and communities throughout the project's lifetime.	

	Activities Result 2
	
	 Activities, Result 2.A
	 2A.1/2A.2 Quarterly newsletter on Somalia programs and progress has been produced and disseminated,
	       starting in January 2006.
	 2A.3 Two studies closing identified information gaps, as recommended by the steering committee, have
	       been undertaken and the final reports published as working papers.
	 2A.4 'A Land and Water Resources of Somalia' report has been completed by June 2007.		

Activities, Result 2.B
2B.1   A National Climate Archive has been constructed by May 2007. A pilot rain gauging field has been established by February 2007. This site will
         be used for, amongst others, enhanced seasonal agriculture production reports (with FSAU), and assessing the potential of the data for
         validation RFE data from USGS
2B.2   A rapid national "global" assessment of rainwater harvesting potential for improved agricultural production has been produced by May 2007.
2B.3.   A national workshop on rainwater harvesting for improved agricultural production, facilitated by a recognised
             expert in the field, has been held in Somalia by April 2007.
2B.4   A status report of medium to large scale irrigation infrastructure for the riverine areas has been produced by April 2007.
2B.5   An irrigation database has been made operational for the riverine area by April 2007.
2B.6   An expert consultation on technical requirements in designing an irrigation information management system has been held in Northern
             Somalia by November 2006
2B.7   An expert consultation on the development, use and data collection for the irrigation information management system developed in 2B.4 –
             2B.5 has been held in Southern Somalia by December 2006
2B.8   An Assessment of Land Suitability and Agricultural Production Potential for the Riverine Areas in Southern Somalia and for the Dur-
             Dur/Gebiley catchments in Western Somaliland have been produced by April 2007.
2B.9   Monitoring seasonal vegetation dynamics at national scale and multi-year landcover changes in selected areas in Somalia. Reports,
             databases and software has been prepared by March 2007.

Activities, Result 2.C
2C.1   An assessment of 4 urban supplies (at least one in each of the regions) completed by UNICEF WES has been carried out in order to assess
             progress towards the MDG III 'to halve by 2015 the   proportion of people who are unable to reach or afford safe drinking water' *(sic)*
2C.2   A water Sources database has been made operational for national coverage by January 2006 and further developed until March 2007. A
             rapid consolidated assessment of water supplies and demand in rural areas, in both best (wet) and worst (dry) case scenarios for humans
             and livestock has been produced by month 30 (with UNICEF).
2C.3   A national archive of hydro-geological information has been constructed by month 30.

Activities, Result 2.D
2D.1   A report on the "The Potential of Remote Sensed Data for The Assessment of Trends in
             Environmental Change at The National Scale" has been produced by April 2007, and an expert
             seminar on monitoring trends in environmental change at the national scale has been held by
             April 2007.
2D.2   A Preliminary Land Degradation and Vulnerability Assessment, and Framework for Future Work for
             Somalia is produced by May 2007.

Activities, Result 2.E
2E.1   A preliminary assessment of the principal catchments and sub-catchments has been produced to support analysis and reporting of water
             resources information.
2E.2   Support to the German AgroAction (GAA) DurDur watershed project has resulted in a "national"
             IWRM workshop being held and a working paper towards IWRM plans for Somaliland has been
             produced.
2E.3   A Juba/Shabelle flow archive has been constructed and maintained and used to support the dissemination of information products for water
             resources, irrigation, drainage, flood and environment, and the river stage gauging network has been extended.
2E.4   A preliminary Juba and Shabelle Water Resources Assessment has been produced to provide a baseline for Water Resources planning by
             July 2007.

Activities, Result 2.F
2F.   The availability of information products and services to support EMERGENCY RELIEF INTERVENTIONS
             has been improved in terms of quantity, quality and coverage such that:

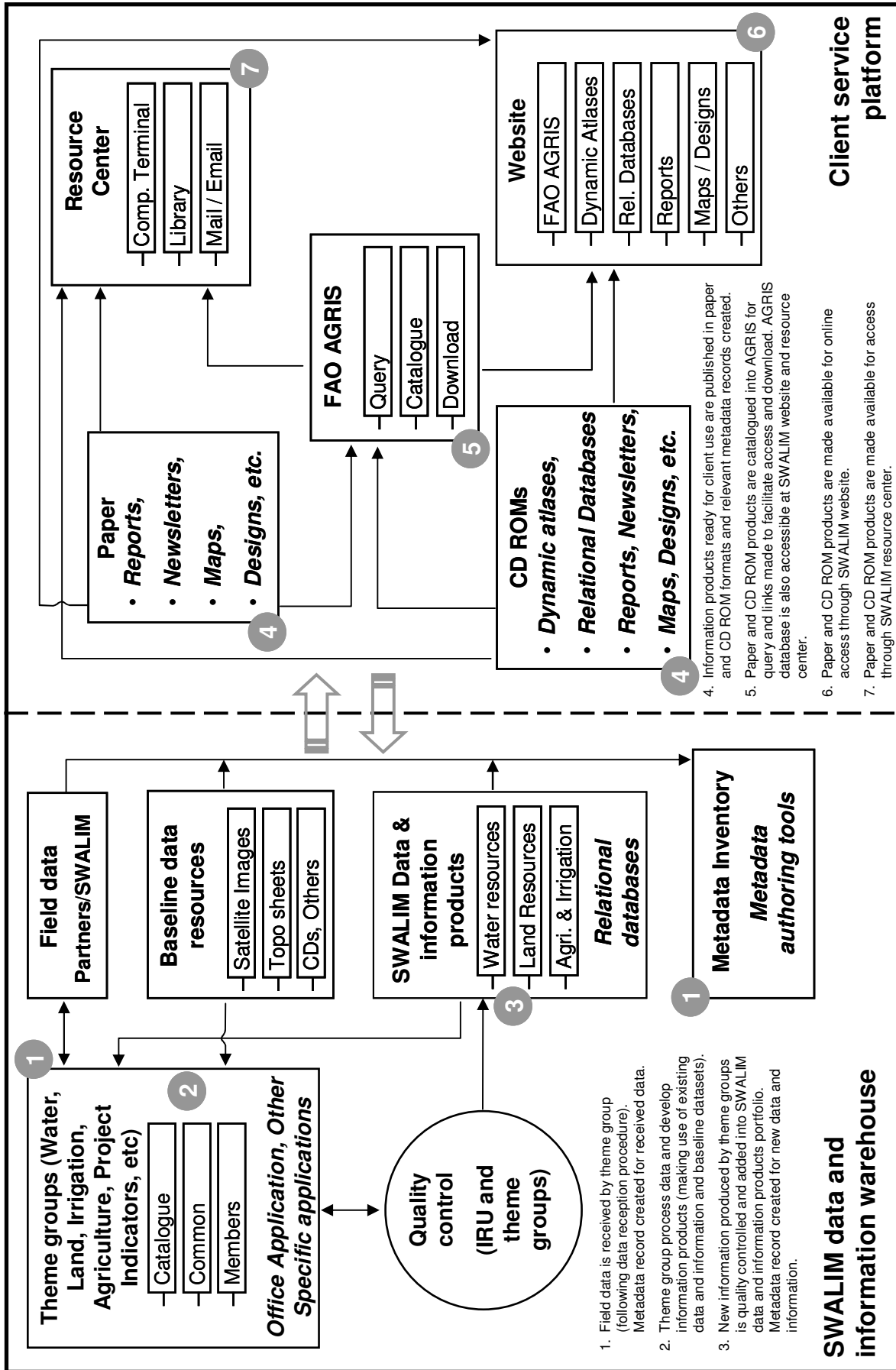|			
	2F.1 Regular bulletins on impending flood risk have been produced and disseminated during the Gu and Deyr seasons (with USGS/FEWS-NET). 2F.2 Information sets to support flood preparedness and response have been developed and disseminated. 2F.3 An operational information centre for information communication during floods has been established in Somalia by September 2006.		
Results	**3. Enhanced capacity of personnel in the development and use of information products and services.**	**OVIs Result 3** * Three Liaison Offices in Somalia and two data centres in the ministries in Hargeisa and Garowe have been established with 1-2 computers each and 3 officers capable of using SWALIM products before the end of the project. * 80 people from partner agencies have been trained and capable of efficiently use SWALIM products (SWIMS, rainfall data collection, land and water surveys).	
	Activities Result 3 3.1 Three Liaison Offices have been established in Somalia before the end of the project. 3.2 15 people from partner agencies in Somalia have been trained on dynamic atlas and IM annually. (See also Activity 1.5) 3.3 20 people from partner agencies in Somalia have been trained annually on water sources information system including data collection and validation. (See also Activity 2C.2) 3.4 15 people from partner agencies in Somalia have been trained annually on irrigation information system including data collection and validation. (See also Activity 2B.5) 3.5 20 people from partner agencies in Somalia have been trained on land resources data collection (See also Activity 2B.8 and 2B.9).		
Inputs	Salaries Professional Consultants Contracts Locally Recruited Labor Travel Training Expendable Equipment Non-Expendable Equipment Technical Support Services General Operating Expenses Support Cost **Grand Total**	**COSTS – EUR** 583,279 1,003,689 381,885 213,607 481,254 130,000 40,656 285,669 106,816 216,967 241,079 3,685,000	**Sources of Verification** Project accounts	**Assumptions (preconditions)** * Security of personnel and materials can be guaranteed * Practical arrangements are made by FAO/EC to assure timely disbursement of funds/procurements & deployment of physical & human resources.

Annex 3.   SWALIM Organisational Chart

Annex 4.   SWALIM Information Management

Client service platform

Resource Center
- Comp. Terminal
- Library
- Mail / Email

Website
- FAO AGRIS
- Dynamic Atlases
- Rel. Databases
- Reports
- Maps / Designs
- Others

FAO AGRIS
- Query
- Catalogue
- Download

Paper
- *Reports,*
- *Newsletters,*
- *Maps,*
- *Designs, etc.*

CD ROMs
- *Dynamic atlases,*
- *Relational Databases*
- *Reports, Newsletters,*
- *Maps, Designs, etc.*

SWALIM data and information warehouse

Field data Partners/SWALIM

Baseline data resources
- Satellite Images
- Topo sheets
- CDs, Others

SWALIM Data & information products
- Water resources
- Land Resources
- Agri. & Irrigation
- *Relational databases*

Metadata Inventory
Metadata authoring tools

Theme groups (Water, Land, Irrigation, Agriculture, Project Indicators, etc)
- Catalogue
- Common
- Members

Office Application, Other Specific applications

Quality control (IRU and theme groups)

1. Field data is received by theme group (following data reception procedure). Metadata record created for received data.

2. Theme group process data and develop information products (making use of existing data and information and baseline datasets).

3. New information produced by theme groups is quality controlled and added into SWALIM data and information products portfolio. Metadata record created for new data and information.

4. Information products ready for client use are published in paper and CD ROM formats and relevant metadata records created.

5. Paper and CD ROM products are catalogued into AGRIS for query and links made to facilitate access and download. AGRIS database is also accessible at SWALIM website and resource center.

6. Paper and CD ROM products are made available for online access through SWALIM website.

7. Paper and CD ROM products are made available for access through SWALIM resource center.

Two way information flow
One way information flow

Page 56 of 77

Annex 5.   SWALIM Main Products, Training and Events

SWALIM has published an impressive number of products, which are fully listed in their Catalogue 2007. A sample is given here, organised according to the concept provided in this report:

Basic Information

Data sets: climate, river flow, water sources, irrigation infrastructure, soils, land cover and vegetation, landform, land use

Maps on climate, drainage, floods, water sources and water supply, land cover, landforms, soils, geology

Thematic information

Reports: Climate of Somalia, irrigation schemes, water supply (rural and urban), floods, hydrometeorological data, water resources, land cover, land form, land use, land degradation, remote sensing potential for pastoral resources assessment, land resources.

Maps: Land suitability map, land degradation

SwALIM is also providing hard and soft copies of a number of found documents relevant to the water and land management in Somalia.

Specialised information

In addition to these, SWALIM as produced a set of tools for sharing of the information, e.g. SWIMS (Somalia Water sources Information Managmenet System), spatial data catalogue (geonetwork), digital document catalogue (agris), dynamic atlas, Resource centres, and the website.

SWALIM has carried out a number of training and events as summarised here after:

Records of events

SWALIM WORKSHOPS AND EVENTS 2005-2007			
Year	**Month**	**Description**	**Place**
2005	Sep	Stakeholders Workshop	Nairobi
	Dec	1st Visit to Ministries	Somaliland
	Dec	1st Visit to Ministries	Puntland
2006	Jan	Somali Experts Workshop	Nairobi
	Feb -March	Land degradation selection of taskforce/Concept development	Somaliland
	April	Signing of MOU and Formation of IMCC	Puntland
	April	Assessment of pastoral resources	Puntland
	July	Signing of MOU and Formation of IMCC	Somaliland
	July	Opening, Start of Liaison office	Puntland
	July	Opening, Start of Liaison office	Somaliland
	May	Land resources survey	Somaliland
	July	Land Resources Survey closing ceremony	Somaliland
	Aug	Website launch - SWALIM Office	Nairobi
	Aug	SWIMS Launch - SSS Conference Hall	Nairobi
	Aug	SWIMS Launch -Somaliland WES	Somaliland
	Sept	Setup of MWMR Data center	Somaliland

	Sept	Setup of PSAWEN Data Center	Puntland
	Oct	Children Drawing Competition Award ceremony	Puntland
	Nov	"	Somaliland
	Nov	SWALIM steering Committee Meeting	Nairobi
	Nov	SWALIM Evaluation	Nairobi/Somaliland
	Nov	Irrigation Mini workshop	Somaliland
2007	Feb	Hargeisa Resource center Launch	Somaliland
	Feb	Irrigation expert workshop	Nairobi
	March	Irrigation schemes workshop	Baidoa
	April-May	Presentation of SWALIM Phase 3 Proposal	Somaliland, Puntland, Baidoa
	May	Rain water Harvesting, workshops	Somaliland, Puntland,Baidoa
	May	Land degradation workshop	Somaliland
	May	Stakeholders Workshop	Nairobi
	June	Remote Sensing workshop	Nairobi
	October	Dissemination workshop	Nairobi, Hargeisa

Records of trainings

Country	Training Activity	Date	Venue	No. of Participants	Participants
Somaliland	Land resources survey data collection training	May 2006	Hargeisa	15	Line ministries staff
Somaliland	Water sources information management training	8 – 9 August 2006	Hargeisa	6	MWMR staff
Kenya	SWIMS training	13 – 14 Sept 2006	Nairobi	4	UN Agencies and NGOs
Somaliland	SWIMS training	17 -20 Sept 2006	Hargeisa	8	MWMR Staff
Somaliland	SWIMS training	5 – 8 Nov 2006	FAO offices Hargeisa	11	Local and International agencies working in Somaliland
Somaliland	Rainfall observers' training	01.11.2006	FAO offices Hargeisa	15	Somaliland Ministry of Agriculture staff
Puntland	SWIMS training	2 – 7 Dec 2006	Bossaso Puntland	9	Line ministries Working with SWALIM
Puntland	SWIMS training	9 – 12 Dec 2006	Bossaso Puntland	11	Local and International agencies working in Puntland
Somaliland	Basic Information Management Training	2nd Dec 2006 – 5th Feb 2007	University of Hargeisa	15	Ministries' staff and SWALIM staff in Hargeisa
Puntland	Basic Information Management Training	Jan – Feb 2007	Garowe - Puntland	15	Ministries' staff and SWALIM staff in Garowe
Somaliland	Dynamic Atlas training	13-14 Feb 2007	FAO offices Hargeisa	16	Ministries' staff and FAO/SWALIM staff in Garowe
Somaliland	GIS training	19 – 24 March 2007	FAO offices Hargeisa	13	Ministries' staff and FAO/SWALIM staff in Garowe
Puntland	Rainfall observers' training	03.04.2007	MoLAE	8	Ministries' staff
Puntland	Rain gauge readers training	Feb 2007	Garowe	8	MOLAE Staff
Puntland	GIS and Dynamic Atlas Training	19 – 24 March 2007	Garowe	15	Line ministries staff
Southern Somalia	Land resources assessment	March 2007	Juba and Shabelle catchments areas	14	A team of Somali land resources experts
Puntland	Pastoral Study	31st March –	Different regions in	45	A team of SWALIM and

	field work	14th April 2007	Puntland		Somali experts
Kenya	Dynamic Atlas	April 2007	Nairobi	15	UN Agencies and NGOs working for Somalia.
Kenya	Dynamic Atlas	Sept 2007	Nairobi	15	UN Agencies and NGOs working for Somalia.
Somaliland	SWIMS follow up training	7th – 8th Nov 2007	Hargeisa	11	Somaliland Ministry of Water and Mineral Resources staff, UN agencies and NGOs
Puntland	SWIMS training	11th – 13th	Bossasso	5	UN agencies and NGOs
Somaliland	Basic Data analysis and information management	11th – 14th Nov 2007	Hargeisa	22	Line ministries staff and NGOs working in Somaliland.

Annex 6.   References

The main material used by the evaluation team during evaluation is summarised here.

SWALIM Project documents and other relevant documents

FAO (2001) Project Document for the *Establishment of a Water & Land Information Management System to Support Relief & Rehabilitation Interventions for Flood and Irrigation* (Somalia)

FAO/EC (2003) *Broad Vision & Medium Term Implementation Strategy for Water & Land Information.*

FAO/EC (2003) *Evaluation & Feasibility Study of Water & Land Information System to Support Relief & Rehabilitation Interventions.*

FAO (2004) Terminal Report of SWALIM Phase I

FAO (2004) *SWALIM Phase II*, Project document.

FAO (2005) *SWALIM Phase II Implementation Plan*.

FAO (2005) *Support to the Sustainable Management of the Shebelle and Juba Rivers in Southern Somalia*, Project proposal document

EC (2006) *SWALIM Monitoring Report*

FAO (2007) *Evaluation of SWALIM Phase II* (mid-term evaluation), and associated documents.

FAO (2007) *SWALIM Phase III project proposal*.

FAO (2007) *Evaluation of FAO Emergency and Rehabilitation Assistance in the Greater Horn of Africa – Aide mémoire for Somalia.*

SWALIM Phase II implementation documents

FAO-SWALIM (2005 to 2007): project progress reports.

FAO-SWALIM (2005 to 2007): Minutes and reports of various workshops (stakeholders, experts, irrigation, remote sensing)

FAO-SWALIM (2005 to 2007): Minutes of IMCC and PSC meetings

FAO (2005 to 2007): SWALIM Phase II Back to Office Reports from Project Task Force Missions.

FAO (2005 to 2007): SWALIM Phase II Minutes of Project Task Force meetings.

FAO-SWALIM (2005 to 2007): MOU with Horn Relief, MOU with IMCCs, Terms of Reference of Liaison Offices, Project Steering Committee, various internal SWALIM procedures (admin, data quality check, IT organisation, etc)

FAO-SWALIM Information Management Framework

SWALIM Phase II outputs

FAO-SWALIM (2005 to 2007): Maps and Reports (see list in FAO-SWALIM (2007) *Products Catalogue*).

FAO-SWALIM (2006 to 2007): Newsletters and Features

FAO-SWALIM (2006 to 2007): Information access tools (GeoNetwork, Digital Atlas, SWALIM AGRIS, SWIMS)

FAO-SWALIM (2007) SWALIM Website.

Other Reference Documents

FAO/EC (2005) *Evaluation of the Food Security Analysis Unit Somalia*

FAO (2007) *Evaluation of FAO Emergency & Rehabilitation Assistance in the Greater Horn of Africa*

Government of Somaliland (2007) *Master Plan for the Reconstruction & Development of the Somaliland Agriculture Sector*

SACB (2004) *Final Report of Review of Aid Coordination for Somalia*

UN (2007) *Transition Plan for Somalia*

UN/World Bank (2006) *Somalia Joint Needs Assessment*

Annex 7.   List of Respondents - 9 to 25 October 2007

FAO ROME
Karen Frenken, NRLW (PTF)
Freddy Nachtergaele, NRLA (PTF)
Hubert George, NRLA (PTF)
Michele Bernardi, NRCB (PTF)
Suzanne Raswant, TCES (PTF)
Giovanni Sinonelli, TCES (PTF)
Robert Portegies Zwart, KCEB (PTF)
Jeroen Ticheler, NRCE
Antonio Martucci, NRCE

DONORS NAIROBI
Luciano Mosele, Technical Assistant Rural Development, EU-Somalia Operations Office
Walter Knausenberger, Senior Regional Environmental Officer, USAID East Africa

GOVERNMENT OF SOMALILAND
Abdilkadir Jibril Tukale, Director General, Ministry of Agriculture
Abdillahi Hassan Megan, Director of Land & Water, Ministry of Agriculture
Hon. Saed Mohamed Bile, Deputy Minister of Pastoral Development & Environment
Mohamed Jama, Director General, Ministry of Pastoral Development & Environment
Ahmed Ibrahim Suldan, Director General, Ministry of Water & Mineral Resources
Abdirahman Sheikh Abdisalan, Director Water Dep., Ministry of Water & Mineral Resources
Saed Duale, Director of Planning, Ministry of Water & Mineral Resources
Mohamed Ali, Head of Data Centre, Ministry of Water & Mineral Resources

FAO SOMALIA
Graham Farmer, Officer in Charge, FAO Somalia, Nairobi
Renato, ARDOPIS Project, FAO Somalia, Hargeisa
Mohammed Jama, Office Manager, FAO Somalia, Hargeisa
Abdi Musa, LED Project Manager, FAO Somalia, Hargeisa

FAO/SWALIM
Zoltan Balint, CTA, SWALIM, Nairobi
Chris Pappas, Operations Manager, FSAU/SWALIM, Nairobi
Hussein Gadain, Water Coordinator, SWALIM, Nairobi
Peris Muchiri, Hydroinformatics Officer, SWALIM, Nairobi
Flavian Muthusi, Water Resources Officer, SWALIM, Nairobi
Lewis Njeru, Information Resources Coordinator, SWALIM, Nairobi
Anwar Mahfoudh, Information Management Officer, SWALIM, Nairobi
Paul Omanga, IT Assistant, SWALIM, Nairobi
Veronica Machira, Liaison Officer, SWALIM, Nairobi
Simon Mumuli, Photo Interpreter, SWALIM, Nairobi
Musse Shaie Alim, Field Coordinator, SWALIM, Nairobi
Antony Ndubi, Cartographer, SWALIM, Nairobi
Craig von Hagen, GIS/Spatial Information Coordinator, SWALIM, Nairobi
Paulo Paron, River Survey Consultant, SWALIM, Nairobi
Ali Ibrahim Ismail, Liaison Officer, SWALIM, Hargeisa

FAO/FSAU and FEWSNET
Sidow Addou, Country Representative, FEWSNET Somalia
Julia Stone, Information Systems Manager, FSAU Somalia
Mahdi Gedi Kayad, Field Analyst, FSAU, Hargeisa

OTHER UN AGENCIES
Adrian Radcliffe, WASH Programme Manager, UNICEF Somalia
Volker Huls, Monitoring & Evaluation Officer, UNICEF Somalia
Chris Print, Water Section, UNICEF Somalia
Mathew Olins, OCHA Somalia
Noor Hussein Ibrahim, Project Engineer, UNDP Somalia
John Marinos, Operational Data Manager, UNHCR
Marco van der Plas, UN HABITAT
Antony O. Lamba, GIS & Land Management Project Manager, UN-HABITAT Somalia, Hargeisa
Mohamed Ali, Programme Specialist, UNDP Hargeisa
Hassan Jama, Hydrology Engineer, UNDP Hargeisa

OTHER AGENCIES
Julian Jones, WatHab Coordinator, ICRC Somalia
Alex Hamming, Team Leader PACSU Somalia
Nicholas Haan, Executive Director T-Ana International, Nairobi, Kenya
(previously CTA FAO/FSAU)

NON-GOVERNMENTAL ORGANISATIONS
Gary McGurk, Chief of Party (Recovery & Emergency) CARE International Somalia
Justus Liku, Food Security Coordinator, CARE International Somalia
Walter Mwasaa, Project Manager Rural Food Security, CARE International Somalia
Peter Muthigani, CEFA Somalia
David Hughes, Deputy Director, Horn Relief Somalia
Reginauld Cherogony, Somalia North Project Coordinator, Horn Relief Somalia
Edwin Magati, WATSAN Expert, ADRA Somalia
Sadia Ahmed Muse, Country Representative, PENHA, Somaliland
Jakob Strassler, WASH Project Manager, CARITAS Suisse, Somaliland
Saed Ahmed, Project Officer, CARITAS Suisse, Somaliland
Omar Sheikh Abdillahi Essa, Executive Director, HAVOYOCO, Somaliland

MEETINGS/WORKSHOPS Attended:
Flood Working Group Meeting, Nairobi, 17 October 2007
SWALIM Dissemination Workshop, Nairobi, 18 October 2007

Annex 8.   Analysis of the SWALIM Questionnaire Survey

Olivier Cossée, Tommaso Balbo Di Vinadio
2 October 2007

A. Overview

As a preparation to the independent evaluation of SWALIM, a web questionnaire composed of 11 questions covering the main issues identified for the evaluation (see questionnaire in Appendix 1) was sent in Late July – early August 2007 to approximately 400 persons drawn from the project mailing lists and from members of the Agriculture and Rural Development Coordination Committees and the Water and Sanitation Coordination Committees in Nairobi (Kenya), Hargeisa (Somaliland) and Garrowe (Puntland). A reminder was sent a few days before the end of the survey period (15 Sept 2007). This report analyses the received answers.

34 responses were collected. The response rate (# of responses / # of questionnaire recipients) is therefore about 8.5%. This level of response is rather low and indicates that SWALIM has a limited audience at this stage. Another implication is that the information derived from this questionnaire would deserve to be verified and cross-checked with other sources, as one cannot assume that the sample is representative of the SWALIM actual or potential audience.

B. Description of Respondents

The first series of questions (Questions 1 to 4) were meant to collect information on the respondents themselves.

Half of them work in non-governmental organizations. The others work for FAO (17), donors (3), consulting companies (2), inter-governmental organizations and research institutes (Figure 1). All three donor representatives work in the EU office in Nairobi (i.e. the donor of SWALIM). FAO respondents work in Headquarters (technical backstoppers and emergency desk officer), FAO Somalia and SWALIM itself.

	# of respondents
Donors	3
FAO	7
Private sector	1
Inter-governmental organization	2
NGO	17
Others	4
Total	**34**

**Figure 1:
What type of organization do you work for?**
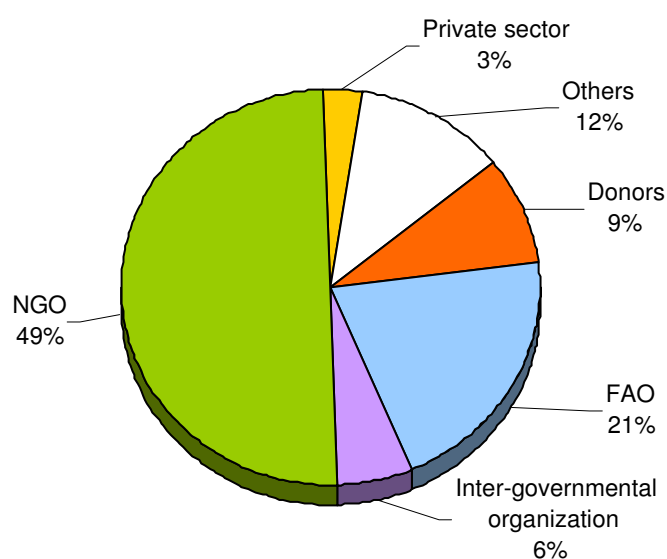
Emergencies (floods, drought, etc.) topped the list of areas of interest (Figure 2). While SWALIM works on both land and water resources, relatively few respondents said they were interested in issues related to land use, land degradation and land tenure. Issues that are less purely technical such as livelihoods and participatory natural resource management are mentioned quite often (56% and 38% of respondents, respectively).
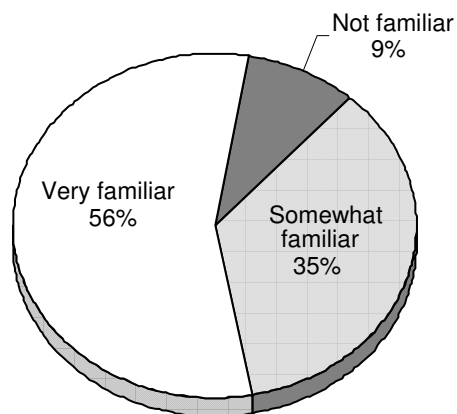
Figure 2:
**What are your main fields of activity or interest?**
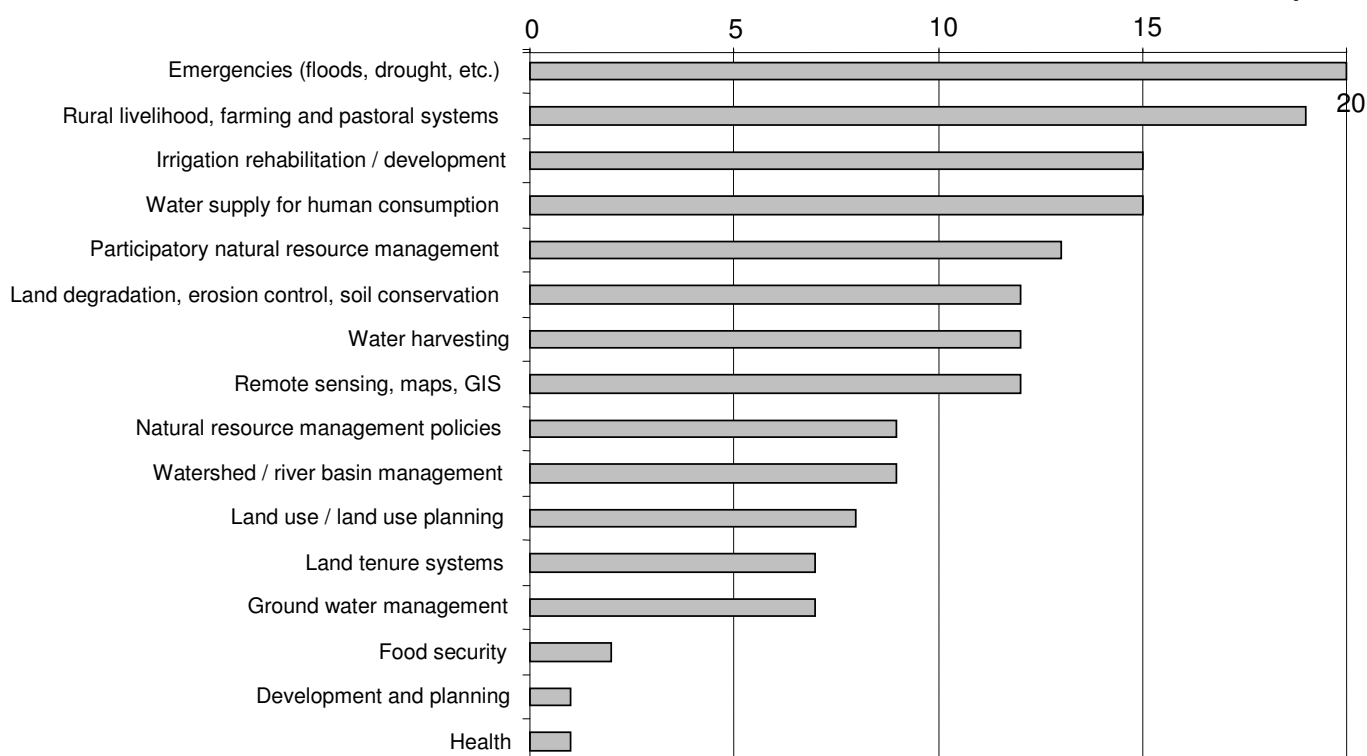
	# of respondents	% of the sample mentioning
Emergencies (floods, drought, etc.)	20	59%
Rural livelihood, farming and pastoral systems	19	56%
Irrigation rehabilitation / development	15	44%
Water supply for human consumption	15	44%
Participatory natural resource management	13	38%
Land degradation, erosion control, soil conservation	12	35%
Water harvesting	12	35%
Remote sensing, maps, GIS	12	35%
Natural resource management policies	9	26%
Watershed / river basin management	9	26%
Land use / land use planning	8	24%
Land tenure systems	7	21%
Ground water management	7	21%
Food security	2	6%
Development and planning	1	3%
Health	1	3%
Total (more than one response per person)	**162**	

Most respondents (19) consider themselves very familiar with SWALIM and its products, followed by those who are somewhat familiar (12). Only 3 respondents viewed themselves as not familiar with the project (Figure 3). About half of the sample uses the SWALIM Website quite often, i.e. once a week or once a month (Figure 4).

Figure 3:
How familiar are you with SWALIM and its products

Figure 4:
How often do you access the SWALIM Website?
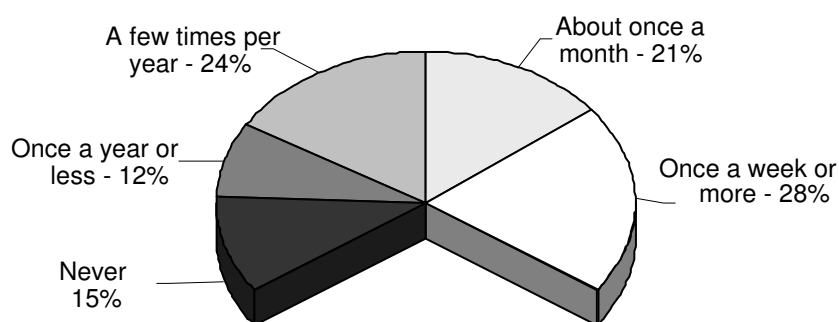
How familiar are you with SWALIM and its products?

	# of respondents
Not familiar	3
Somewhat familiar	12
Very familiar	19
Total	**34**

How often do you access the SWALIM Website?

	# of respondents
A few times per year	8
About once a month	7
Never	5
Once a week or more	10
Once a year or less	4
Total	**34**

C. Use of SWALIM Products

A few questions tried to assess the most frequent "outcomes", i.e. the typical types of *uses* SWALIM products are put to. Overall there were 27 replies to Question 5: "Please cite some SWALIM products that you have found particularly interesting or useful in your work, if any." The full list is provided in Appendix 2. The answers cover a wide array of products. The most frequently mentioned were maps (+dynamic atlas) and the flood and storm watch bulletin (+historical flood risk map). Not surprisingly, those with an interest in emergencies tend to be interested in flood watch products. Two respondents said that SWALIM products were not useful or not used by them ("None" / "None, even the library is not well organised").

Question 6 was asking for what purpose the SWALIM products cited above were used. Again the list of all replies is in Appendix 2.

Many respondents mentioned that they were using SWALIM information products for the purpose of planning, project proposal writing and reporting. This point out to a use of SWALIM products as "documentary reference", i.e. to enrich documents such as reports or project proposals. The FSAU has a lot of that type of use as well. This is of course positive in terms of visibility and is a type of use that is typical of normative projects. However, quoting SWALIM in a project proposal doesn't necessarily mean that the intervention is going to be better targeted or

implemented. More interesting therefore are uses that are directly linked with improving implementation:

- A first group of responses related to implementation is rather straightforward and concerns those who are mainly interested in the flood bulletin and flood risk map: they use these products as a way to target villages and areas for their emergency support.
- A couple of responses refer to decision making, especially re. the areas where to work (probably about irrigation).
- A less clear-cut group of answers relates to informing staff about natural resources and their management, to improve staff's understanding of issues, to train staff and partners (could be called "improved understanding of issues").

There were 23 answers to Question 7 ("If you were trained to use SWALIM products, how useful did you find the training?"). Almost all respondents except 3 found the training very useful or useful.

Figure 5:
If you were trained to use SWALIM products,
how useful did you find the training?

	# of respondents
Not useful at all	2
Of moderate use	1
Useful	7
Very useful	14
Total	**24**
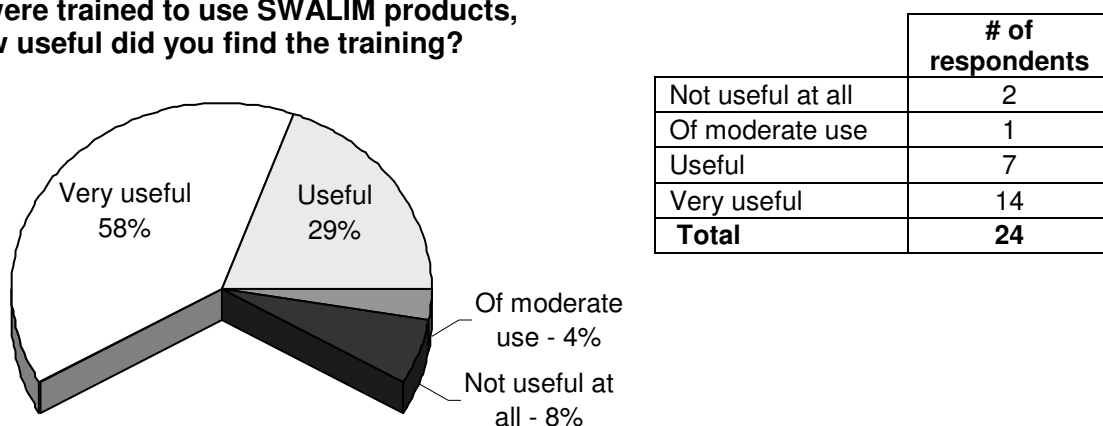
That 23 out of 34 respondents were trained by SWALIM indicates that most respondents are quite close to the project.

D. Strengths and Weaknesses

This section mainly refers to Question 8 ("From your perspective, how well do the following terms describe SWALIM and its products" – followed by a series of criteria against which to rate SWALIM) and Question 9: "What is it about SWALIM, its programme, products and / or your collaboration with the project that you find most satisfying? Least satisfying?"

The overall picture that emerges is very positive, with small variations from one attribute to the next. This pattern reflects a well-known bias called "column rating": when faced with such rating questions, respondents sometimes tick an entire column (e.g. rating all attributes "fair") without thinking about each item on its own merit, because they have a generally "fair" judgement of the project as a whole. The consequence is that small variations in the overall computed satisfaction rates (see Figure 6 and the following "computation of satisfaction rate" table) may be   more   significant   than   they   appear.

Specifically, SWALIM is considered to be very relevant to the relief and development priorities of Somalia, timely, reliable and useful to the respondents. Less people think that SWALIM or its products are clear / easy to understand; visible / well-known; and strategic / far-sighted. The

attributes against which the project is rated the less positively are: <u>demand-driven</u> / open to suggestions by stakeholders; and <u>focussed</u> on a few key, pressing issues. However, even the latter attributes are rated positively by at least a majority of respondents.

Figure 6:
From your perspective, how well do the
following terms describe SWALIM and its products?
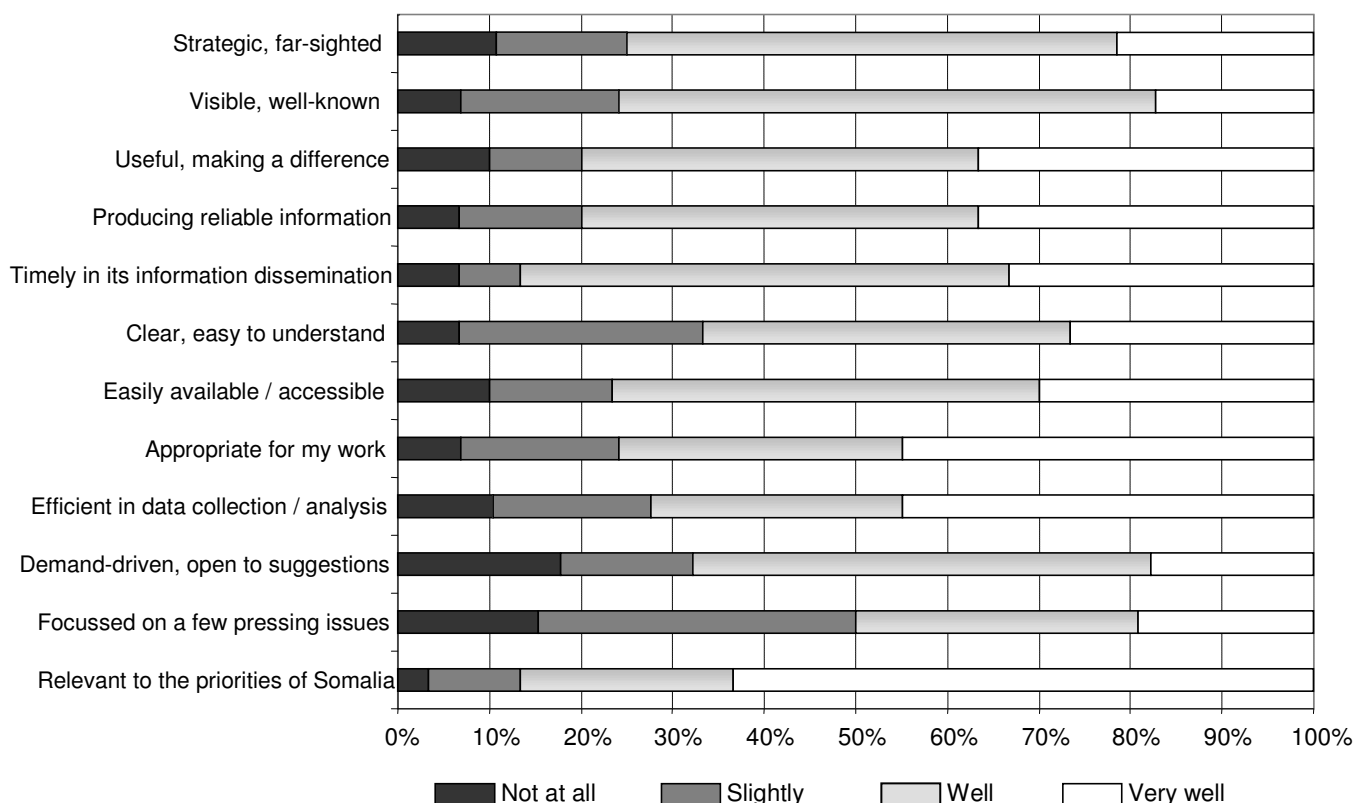
	Not at all	Slightly	Well	Very well	Satisfaction rate
Relevant to the relief/development priorities of Somalia	1	3	7	19	74
Timely in its information dissemination	2	2	16	10	64
Producing reliable information	2	4	13	11	63
Appropriate for my work (e.g. content, scale, classes)	2	5	9	13	62
Useful, making a difference	3	3	13	11	62
Efficient in data collection and analysis	3	5	8	13	60
Easily available / accessible	3	4	14	9	59
Clear, easy to understand	2	8	12	8	56
Visible, well-known	2	5	17	5	54
Strategic, far-sighted	3	4	15	6	52
Demand-driven, open to suggestions by stakeholders	5	4	14	5	47
Focussed on a few key, pressing issues	4	9	8	5	40

Attributes are sorted in decreasing order of satisfaction. Computation of satisfaction rate: Not at all = 0; Slightly = 1; Well = 2; Very well = 3.

Question 9 asked for specific praise and criticism. Much praise tended to focus on the willingness of SWALIM to cater for *ad hoc* user requests. Complains included the following (see Appendix 2 for complete list):

- SWALIM is not located in Somalia (the project is based in Nairobi) hence it tends to be disconnected from realities on the ground;
- maps are not updated often enough;
- lack of basic information such as area under irrigation in Lower Shabeelle region;
- no simple way of getting GPS coordinates of existing water (irrigation?) structures;
- downloads (time it takes to download heavy docs?)
- insufficient funds available for the huge task at hand (this comes from FAO).

E. Recommendations

Questions 10 and 11 asked for recommendations and suggestions from respondents on how the SWALIM project, products and services could be improved or complemented. Again all 28 received replies are listed in Appendix 2; most of them are quite long and precise and it is difficult to summarize them.

A first group pertains to improving the connection of SWALIM with the situation on the ground: establish offices or staff in Somalia; be hosted in a Somali institution; train more people; reach out for more development partners, etc (e.g. "I think that SWALIM is out of reach for the development partners, too technical, not providing information based on the Somali reality and practices").

Another group refers to improving the quality and comprehensiveness of basic data, e.g. settlement GPS data which are old and outdated, start rangeland mapping, finish water points mapping... There are in fact quite a lot of issues on which respondents would like SWALIM to work: river basin management, socio-economics and land tenure, more emphasis on land (there is a perception that SWALIM is more about water than land), water quality control, pastoral resources, etc.

A third group of answers circles around the need for SWALIM to focus its work to a greater extent, geographically (on areas with high population density i.e. supposedly the South) and/or topically ("Focus on strategic topics and studies which need to be produced NOW although their use could only be possible in the future when the situation of Somalia improves").

Note that this latter recommendation is contradictory to the wish to have SWALIM work in all sorts of domains, expressed above... Clearly, the audience has varied needs, and choices will have to be made. Hopefully the evaluation can the project strategise and focus while keeping as broad a base of users as possible.

Appendix 1:
Questionnaire

Help us improve our work:
Evaluate SWALIM !

Dear Colleague,

In order to improve our services in the area of land and water information, we would like to ask you for your feedback on SWALIM. The questionnaire to that effect consists of 11 questions and should take about 10 minutes to complete.

The responses will be analyzed anonymously by two independent consultants, so that your answers remain entirely confidential. The easiest way to respond is to **open the attached form, fill it in and click on "submit" at the end**.

Alternatively, you may also **print the attached form, fill it in by hand and fax it to +39 06 570 54403**.

For more information about SWALIM, please visit our website at: http://www.faoswalim.org.

We thank you for providing your candid feedback and recommendations by **15 September 2007**.

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1. **What type of organization do you work for?**
   Governmental institution
   Donor representation
   Non-governmental organization
   Research institute / academic institution (including students)
   Consulting company / free lance consultant
   Media / publishing
   Farmer association / producer organization
   Industry / other private sector company
   FAO (projects / field offices / headquarters)
   Inter-governmental organization other than FAO (Unicef, World Bank, IGAD, etc.)
   Other (please specify)

2. **What are your main fields of activity or interest** (tick all that apply)
   Remote sensing, maps, GIS
   Emergencies (floods, drought, etc.)
   Water supply for human consumption
   Ground water management
   Water harvesting
   Irrigation rehabilitation / development
   Watershed / river basin management
   Land degradation, erosion control, soil conservation
   Rural livelihood, farming and pastoral systems
   Land tenure systems
   Land use / land use planning
   Participatory natural resource management
   Natural resource management policies
   Other (please specify)

3. How familiar are you with SWALIM and its products?
Very familiar
Somewhat familiar
Not familiar

4. How often do you access the SWALIM Website?
Never
Once a year or less
A few times per year
About once a month
Once a week or more

5. Please cite some SWALIM products (data sets, maps, publications, events or contributions) that you have found particularly interesting or useful in your work, if any.

6. Please explain for what purpose you used the SWALIM products cited above, and what difference they are making in your work.

7. If you were trained to use SWALIM products, how useful did you find the training?
Very useful
Useful
Of moderate use
Not useful at all
Not applicable / not trained

8. From your perspective, how well do the following terms describe SWALIM and its products:

	Very well	Well	Slightly	Not at all
Relevant to the relief / development priorities of Somalia				
Focussed on a few key, pressing issues				
Demand-driven, open to suggestions by stakeholders				
Efficient in data collection and analysis				
Appropriate for my work (e.g. content, scale, classes)				
Easily **available / accessible**				
Clear, easy to understand				
Timely in its information dissemination				
Producing **reliable** information				
Useful, making a difference				
Visible, well-known				
Strategic, far-sighted				

9. **What is it about SWALIM, its programme, products and / or your collaboration with the project that you find:**
   Most satisfying?
   Least satisfying?

10. **In your opinion, how could the SWALIM project, products and services be improved?**

11. **Are there any topics / areas of land and water management where you would like SWALIM to place greater emphasis in the future?**

Name and Contact Information (Optional - yet appreciated)
   Name:
   Position / title:
   Organization:
   Country of residence:
   E-Mail:

Appendix 2:
Verbatim Replies to Textual Questions

Question 5. Please cite some SWALIM products (data sets, maps, publications, events or contributions) that you have found particularly interesting or useful in your work, if any.
- Experts Workshop on Irrigation   Workshop on Remote Sensing for Natural Resources Management
- Maps for our project area, SWALIM land degradation material
- Mentorship & training
- None, even the library is not well organised
- Maps, publications
- Data sets, maps
- Health data
- Its good about water research and resource management
- Pastoral resources study, land degradation study, feature write-ups
- The different flood and storm Watch where you can have an idea of the situation in one glance
- Inundation risk and historical flood maps for Juba and Shabelle rivers
- SWIMS database, Network of canals, studies on areas of interest
- Water Management.   Storm Bulletin   River levels
- Quarterly newsletters   imagery maps   River water management guidelines
- Dynamic atlas, news letters, maps publicized for Somalia: lower Juba and lower Shabelle.
- Maps
- Land resource survey and analysis
- Flood bulletin, maps, etc
- We somewhat use it to understand in the water management system
- RFE, NDVI, Flood early warning
- Floods and the rain fall forecast
- Metadata, essential information sheet, detailed information sheet, but I would like to see SWALIM automate form filling and minimize duplicated filling of various sheets. Also we receive rarely the SWIM bulletin
- Storm Watch,   Dynamic Atlas
- Maps, water reports

Question 6. Please explain for what purpose you used the SWALIM products cited above, and what difference they are making in your work.
- Development Planning
- Maps for some project work, evaluations, proposal writing
- Day to day delivery of my responsibilities to SWALIM clientele
- We mainly use for references, planning and reporting for project locations. It help improve project designing and implementation in more effectively. Further, it helps to relate different spatial features with each other on the ground and their implications to project
- Making decisions on coverage, technology choices, and agency interventions in the regions of Somalia
- Enriching Clients reports
- Seeking information and opportunities
- I used the SWALIM products extensively while carrying out the Pastoral Resources Assessment study
- Planning

- As a complementary information system to FSAU. As a member of the Steering Committee. But I mainly ask implementing partners to liaise with SWALIM.
- Targeting riverine villages in flood affected areas for project support following the 2006 Der season riverine flooding.
- As operations officers for Somalia I need to know potentialities and risks linked with natural resources in Somalia.
- Food security and early warning.
- Used for planning projects in Shabelle; for training partners; for early warning information with beneficiaries
- Understand area of study, improve quality of my final products
- For projects planning and implementation. They are useful for identification and determination of existing infrastructures, land use, resources and orientation.
- Flood early warning and preparedness
- For future developmental interventions related to the natural resources and land use management
- I used weekly flood bulletin as early warning because our area is a highly flood affected area
- We feel better as response coordination and of their mechanism of the task
- We use your product for remote sensing and comparing with our ground information which most of the time match the same. as a food security organization, we use it as an early warning as well as a point forward for our argument with the field staff during our monthly analysis and seasonal surveys.
- For record keeping and avoiding duplications of efforts by various agencies.
- Planning activities i.e. avoid rainy days/flood periods   Mitigation and preparedness
- For references and updating

Question 9. What is it about SWALIM, its programme, products and / or your collaboration with the project that you find:
Most satisfying?
- Finding maps and other relevant materials
- Remote Sensing for Natural Resources & Irrigation data
- You can contact SWALIM and you get a response
- Open approach to execution of responsibilities
- The interpretation of the spatial data
- Data and Information on SWIMS
- Events update
- The working programme and activities
- Excellent service for what I need
- Visual products, maps
- Ability to react to present information to specific requirements
- Paper work which looks good
- The ability to consider requests and needs of stakeholders (donors, local authorities, partners)
- Water management, land and irrigation
- Generated information
- Resource evaluation
- Regularity in producing news letters
- Information dissemination
- RFE forecasts, water source mapping, soil type, NDVI
- Flood early warning and rain fall forecast
- interchange of information, coordination , workshops
- Seeing data sent from CARE partnership mapped on river level analysis

Question 9. What is it about SWALIM, its programme, products and / or your collaboration with the project that you find:
Least satisfying?
- Land degradation studies
- SWALIM staff is mainly sitting in nice Nairobi far away from Somaliland/Somalia
- Not everyone will appreciate your worth
- Data analysis
- No update of maps
- In 4 years not able to establish effective cooperation
- Time taken to analyse data and process it in a friendly manner
- Surprising lack of basic information of key significance such as area under irrigation in Lower Shabelle region
- Relatively small funds available for the huge task of collecting, processing and applying information on natural resources of the whole country in absence of any central governmental administration in the Centre/South.
- nothing really
- They don't provide specific information
- Land cover types
- No detailed way of getting up to-date GPS coordinates of existing water structures, partly owing to non-collaboration by implementing agencies.
- Downloads

Question 10. In your opinion, how could the SWALIM project, products and services be improved?
- Focus on strategic topics and studies which need to be produced NOW although their use could only be possible in the future when the situation of Somalia improves.
- Move it to Somaliland/Somalia.
- Collaborative approach to issues being implemented sounds to be excellent for my case
- I think that SWALIM is out of reach for the development partners, too technical, not providing information based on the Somali reality and practices. The link to the field, to the people and to the development partners is yet to achieve.
- To have more field staff in all across all the regions who are committed to collect the required data like FSAU approach.
- SWALIM to make a proactive approach to engage/involve all implementing agencies in Somalia, put a cut-off date, and come up with a status map (baseline assessment) for a specified period - this is what should later be built on periodically. this should be coordinated with the existing administration/government
- Review of primary data base of Somalia. A significant segment, including locations of settlements and other geo-referenced data is still rather old, and should be updated to continue being useful to clients (agencies, NGOs, new government)
- Do more research. Some of the data from elsewhere are not very accurate
- Establish face to face contacts with projects staff in Somalia
- Needs more direct implementation by its own staff rather than rely on information and data provided by other partners. Need to be hosted in a Somali institution in the long run.
- Increase awareness on the type of information available from SWALIM, training on the use of SWALIM products such as the Somalia dynamic atlas, and image manipulation software and GIS.   Increase awareness on the direction in which SWALIM is moving and what it's key priority areas and plans for the future are.
- Raising more funds and focusing on the most critical geographic areas (the more densely populated or/and with highest humanitarian problems).
- By sharing data and information directly with agencies and at different levels Q11 =

- More training for the local people.   Increase project funds.   More investment on equipments
- Publicise their work in coordination forums (SSS & UN clusters)
- More time allocation to process, enhance and review products
- According my experience with SWALIM, SWALIM implemented many activities that will serve the Somalis in planning the future interventions. SWALIM is giving more priority in water while i think it is neglecting or giving less priority to Land information.
- I feel SWALIM and FSAU project could benefit from having one GIS/RS department
- Made more specific and answer clients' needs
- To give the partner training about the usefulness of the SWALIM information and benefit of the information.
- Through information Dissemination in Channel
- Complete soil survey throughout Somalia. Finalize and produce water source mapping while indicating those functioning and those not. Rangeland mapping, indicate if they are edible for livestock or not. this will make easier for us to improve our early warning systems specially remote sensing for crop yield and pasture/water improvement for livestock to direct them to migrate.
- Proper plan and communication.
- The filling of forms should be automated for example we have same information everywhere so this should be linked by some how to minimize rewriting. to add all regions and districts of Somaliland.
- Better visibility..   Work closer with various clusters/working groups to update all information.
- Library search are always time consuming so please make search very simple I.e. Title, dates etc so accessibility become very easy like Google search tool

Question 11. Are there any topics / areas of land and water management where you would like SWALIM to place greater emphasis in the future?

- Rangeland management
- Information on river basins had been hinted in many meetings & the implementation of River Basin Management by SWALIM is of great benefit
- Socio-economics, land tenure analysis, land laws and policy analysis, land and water management at different scales
- They are all equally important, however to get more information on land use and its potentiality would help increase the proper land use and suggest to focus on this area.
- Water quality control
- Mapping and update of active organisations.   Encourage update of data by agencies, and more importantly using it to update data bases, especially the maps.
- South and central Somalia-needs more about clean water
- Studying and assessing pastoral resources is, in my opinion, very important because Somalia is 90% semi-arid or arid. Pastoral production is therefore very important.
- Lower Shabelle Region / SOMALIA (SCZ)
- Establish together with government institutions a fully-functioning network of meteorological data recorders in key locations in Somalia.   Country-wide cover for high resolution digital aerial photography, accurate mapping of all settlements and development of an effective human and livestock population census methodology.
- Even though land degradation, tenure and potentialities cannot be ignored, information on water availability, potential use and problems (droughts, floods) are more immediately useful in emergency situations.
- Rainfall dissemination   Water, land, river levels and improving agriculture infrastructure.
- Offer designs and guidelines that can be used by agencies working under land and water management.

- Smallholder irrigation schemes   Crop-water requirements for diversified cropping Water allocation along the river basins, Smallholder irrigation schemes   Crop-water requirements for diversified cropping
- Land degradation
- Land degradation, erosion control and soil conservation
- In the riverine areas (most flooded areas)
- Vegetation mapping and include were of water/land vegetation is deteriorating and require improvement to response agencies.
- Mapping of the river breakages along the two rivers for development purpose
- Mapping of water points are very essential to us but the swims have no in-built mapping software.
- Underground water sources; mapping areas that can benefit from gravity irrigation and are not utilizing.
- I think each area has its importance. I know some reports are their but I find it difficult to locate sometimes.