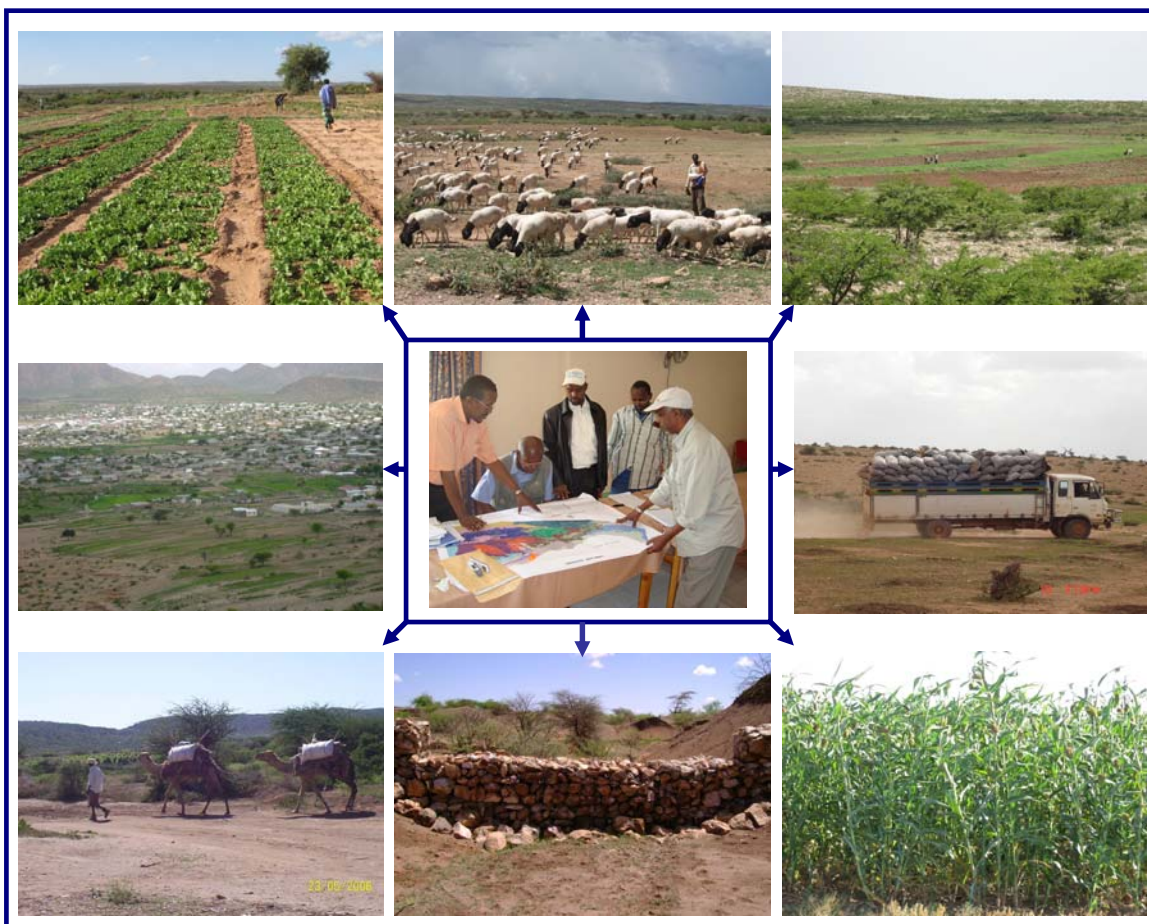




Land Use Planning Guidelines for Somaliland



Project Report No L-13
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List of Acronyms

APD	Academy for Peace and Development (LNGO)
CAP	Community Action Plan
CLHE	Candle Light for Health and Education (“Candlelight”) (LNGO)
CMO	Community Mobilization Officer
DDC	District Development Committee
DSS	Decision Support System
DLUPG	District Land Use Planning Group
EEZ	Economic-Ecological Zoning
FAO	Food and Agricultural Organization of the United Nations
FOPAG	Forum for Peace and Governance (INGO)
FSAU	Food Security Analysis Unit
GAA	German Agro Action (INGO)
GoS	Government of Somaliland
HAVAYOCO	Horn of Africa Voluntary Youth Committee (LNGO)
ICDP	Integrated Community Development Programme (IFAD)
ICRAF	World Agroforestry Centre
IFAD	International Fund for Agricultural Development
IMCC	Inter-Ministerial Coordination Committee
INGO	International Non-Governmental Organization
IPSMRL	Integrated Planning for Sustainable Management of Land Resources
IUCN	World Conservation Union
LGP	Length of Growing Period
LNGO	Local Non-Governmental Organization
LRMG	Local Resource Management Group
LUP	Land Use Planning; Land Use Planner
LUT	Land Utilization Type
MoNPC	Ministry of National Planning and Coordination
MoA	Ministry of Agriculture
MoI	Ministry of Interior
MoL	Ministry of Livestock
MoW&MR	Ministry of Water and Mineral Resources
MoPD&E	Ministry of Pastoral Development and Environment
M&E	Monitoring and Evaluation
NAGAAD	Woman groups umbrella organization (LNGO)
NERAD	National Environment Research and Disaster-preparedness
NGO	Non-Governmental Organization
NRM	Natural Resource Management
PENHA	Pastoral Emergencies Network for the Horn of Africa (INGO)
PICD	Participatory Integrated Community Development
PM&E	Participatory Monitoring and Evaluation
PRA	Participatory Rural Appraisal
BVO	Barwaago Voluntary Organization (LNGO)
RBU	Resource Base Units
SES	Somaliland Ecological Society (INGO)
SMCE	Spatial Multi-Criteria Evaluation
SNRMP	Somali Natural Resources Management Programme (IUCN)
SOMALES	Somalia Automated Land Evaluation System
SWALIM	Somalia Water and Land Information Management
SWIMS	Somalia Water Sources Information Management System (SWALIM)
SWOT	Strengths Weaknesses Opportunities Threats
UNDP	United Nations Development Programme
UNHCR	United Nations High Commission for Refugees
UNOPS	United Nations Office for Project Services
VDC	Village Development Committee
WASH	Working group on Water, Sanitation and Hygiene
WOCAT	World Overview of Conservation Approaches and Technologies
WSP	War-torn Societies Project (International) (INGO)

Acknowledgments

The authors wish to acknowledge the guidance given by Dr. Hubert George and the experts who participated in the consultative workshop in which the concept paper was outlined.

Land Use Planning principles and their application in Somaliland were discussed with stakeholders from Government, NGOs, Development Agencies, Universities and Parliament at two Workshops in Hargeisa in October 2008 and February 2009 respectively. The comments made by the participants and supporting documents provided by them have made the present Guidelines more relevant for local conditions.

Land use planning is one of many activities of SWALIM, all executed and brought together under the excellent guidance of Dr Zoltan Balint, SWALIM Chief Technical Advisor.

The present document incorporates substantial parts of selected existing Land Use Planning Guidelines and Studies. Full references of these Resources are given elsewhere in this report.

ABOUT THE GUIDELINES

Purpose of the guidelines

The purpose of the present Guidelines is threefold:

1. to explain the basic principles of land use planning
2. indicate which land use planning activities could be carried out in Somaliland at different levels, and how
3. provide a number of tools and resources which could be of practical use by land use planners in Somaliland

The guidelines are not a manual which has to be followed strictly. Such manuals could be developed at a later stage, particularly for land use planning at village level.

Intended users of the guidelines

The guidelines are meant for technicians and administrators involved in land use planning and natural resources management in Somaliland. They could be civil servants from various line ministries, or project staff of national and international NGO's and consultants. The Guidelines will also be useful at relevant departments of colleges and universities.

Structure and content of the guidelines

- | | |
|-----------|---|
| Chapter 1 | <ul style="list-style-type: none">▪ Introduction to land use planning in general▪ Introduction to land use planning in Somaliland |
| Chapter 2 | A summary of the Guidelines for integrated planning for sustainable management of land resources (FAO-UNEP, 1999) |
| Chapter 3 | National level: Land use planning priorities in Somaliland
- with special attention to harmonized land policies and legislation |
| Chapter 4 | District level: Guidelines for land use planning
- with special attention to SWALIM activities and resources |
| Chapter 5 | Local level: Guidelines for land use planning
- with special attention to participatory village land use and natural resource management planning |
| Chapter 6 | Some tools for various activities within the land use planning process |
| Chapter 7 | Guidelines (Format) for project proposals |

An attempt was made to make the various Chapters readable independent of each other, which made it necessary to repeat some practical information

Main resources used and freely quoted in the guidelines

Title	Reference	This report
Guidelines for integrated planning for sustainable management of land resources	FAO-UNEP, 1999 FAO, 1993	Chapter 2
Community based participatory watershed development (in Ethiopia)	Lakew Desta et al, MoARD, 2005	Chapters 4, 5
Guidelines for participatory village land use management in Tanzania	NLUPC, 1998	Chapters 2, 5
Participatory village land use and natural resource management planning in Somaliland	Barrow/IUCN, 1998, 2000	Chapter 5
PRA Case Studies (Somaliland)	IFAD/UNOPS, 2003, 2006 Havoyoco/Oxfam, 2007	Chapter 5
Guidelines for Participatory Land Use Development in the Municipalities of Bosnia and Herzegovina	FAO, 2004	Chapters 2, 7

1 INTRODUCTION

1.1 What is land use planning?

“Land” refers to earth’s terrestrial surface and includes climate, soil, landform, water, plants, animals, human settlements and infrastructure (FAO/UNEP, 1997). Land use planning (LUP) is a procedure which leads to an optimal and sustainable use of the land and all its attributes. Use of the land may take various forms, from intensive use such as settlements and irrigated agriculture to less intensive use such as livestock production, forestry or nature reserves. The same piece of land can be used for more than one purpose at the same time (e.g. forestry and livestock production) or have different uses during different periods of year (e.g. rainfed cropping during the wet season, followed by grazing during the dry season).

Land use planning is a procedure for planning the sustainable use of the land considering its potentialities, limitations and the user needs.

Land use planning is not something new: it has been practiced from the time that man domesticated animals for livestock production and started crop cultivation.

1.2 Recent history of land use and land use planning in Somaliland

During the last 120 years, Somalia and Somaliland have experienced great political and socio-economic changes. The change in land use policies and land use planning activities over those periods is considerable, with new governments often reversing measures taken by previous regimes. More or less continuous developments over all periods include growing population, expansion of agriculture (cropping), increased number of water points, sedentarization, tree cutting and expansion of rangeland enclosures.

Five major historical periods can be distinguished, and their effects on land resources utilization and land use planning are described below:

- before 1887: Pre-colonial
- 1887-1960: Colonial
- 1960-1969: Civilian rule of government after independence
- 1969-1990: Revolutionary Military Socialist regime
- after 1990: Collapse of the revolutionary regime

Pre-colonial time (Before 1887)

Before colonial times the Somali society had an effective system of governance. This traditional system, which is still in use in Somaliland today, managed all societal relations between communities, such as conflicts, resource sharing, and the provision of the rule of law, through the customary laws (*Xeer*) (see Box 1). The *Xeer* has rules for sharing of pastures, water and other natural resources. Every member of the clan had the right of access to the rangelands and water resources of the territory inhabited by his/ her clan community.

Box 1: Customary Law (Xeer)

The *Xeer* consists of a set of contractual agreements reached by the members of the kinship of the same ancestor or groups and used for interactions among members of the same kinship and interactions with other neighbouring groups. Codes and conducts of traditional governance are overseen by respected elders (*Odayo*). The *Xeer* is used for administrating common property, such as pasture, grazing lands, forests and water.

Source: CRD Somalia, 2005

The rangeland resources were managed on a collective basis. Every person had a property right to anything created by him (e.g. a shallow well). Such property could be inherited according to the regular Islamic *Shari'a* rules of inheritance. In higher rainfall areas land was sometimes enclosed (fenced) for farming (cropping). In such farming communities everyone had a right to the use of a piece of cultivable land. In urban areas plots of land and other assets were privately owned. Similarly, gum and resin producing trees in the Golis Mountains were divided among clan lineages and privately owned.

Colonial Period (1887-1960)

During the British colonial rule in Somaliland the land tenure system shifted from communal ownership to private ownership and new management procedures, such as land registration, title deeds and land taxation, were introduced in urban centres. Agricultural land could be leased for 50 years, and urban land for an indefinite period.

As many former pastoralist people were settling in the regions of Awdal and Waqooyi Galbeed in the 1900s, the colonial administration allocated some communal grazing land to those who wished to change their livelihood from pastoralism to agro-pastoralism and then demarcated a boundary between grazing and arable land areas against the wishes of the pastoralists.

Other new land management systems were also introduced:

- Grazing reserves were made to increase forage availability during the dry season (Jilaal). Transportation of grass on trucks for export was prohibited. However, grazing controls were not very successful (Samatar, 1989)
- Forest reserves were established in the Golis Mountains
- Rainfed farming was encouraged in the fertile plateau area to produce food for the increasing settled population
- Some public water points including dams, deep wells and boreholes were developed in drier areas; sub-surface concrete water cisterns (berkads) were also introduced
- Extension services and other forms of technical support were provided to the new farmers. An Experimental Farm and Agricultural Demonstration plots were established and new crops introduced.

Civilian Government Rule (1960-1969)

The Civilian Government introduced new land rights, whereby every Somali was allowed to live and farm anywhere, irrespective of his/her clan or area of origin. The traditional free grazing in the rangelands and the colonial land rights were maintained. Commercial livestock production was encouraged. Grazing reserves were used as holding grounds for export animals, and rangelands were increasingly privatized. More public and private water sources, boreholes and berkads, were established. A model farm was established in Waqooyi Galbeed. The civilian era was characterized by rapid population growth, increased urbanization, increased live animal export and increased rangeland degradation.

Revolutionary Period (1969 to 1990)

Scientific socialism was introduced in the 70s and a new land tenure law was adopted, declaring that all the land belonged to the state and would be administered by the government. This effectively nationalized the communal rangelands, agricultural schemes and other properties. They also nullified the customary treaties between pastoralists over rangeland management (Bradbury, 1996). All nationalized irrigated farms were principally operated as public farms by the government. In 1973 the government issued a Law on Agricultural Cooperative Development and more funds were diverted to the agricultural sector.

Despite nationalization, a de-facto land market developed in urban areas, and in the rural areas the traditional land rights of clans were somehow maintained. Though the law made private ownership of rangelands illegal, private enclosures for cooperative ranching and by more powerful pastoralists were already allowed by the end of the 1980s (Bradbury, 1996). Many water points for both humans and livestock were developed and maintained by the government. Private development and usage of water points and other infrastructure was also allowed with permission from authorities.

The government made an attempt to maintain and improve the long-term productivity of livestock production and to raise the living standard of pastoralists. Rotational grazing systems, grazing reserves, improved water supply, marketing facilities and veterinary services were introduced. Reserves were fenced and/or controlled by the National Range Agency.

The Law for Conservation of Flora and Fauna was enacted for the protection of the natural forests. The law differentiates between forest reserves and unreserved land and includes policies for full community participation in proper utilization, conservation, preservation and management of the natural forests.

In the 70s the Northwest Region Agricultural Development Project was established in degraded areas in the Waqooyi Galbeed region. Soil conservation, water harvesting (soil bunding) and improved crop management techniques were implemented.

Land clearing for cultivation was allowed for any farmer after having obtained a permit from the authorities. Charcoal producing cooperatives were established for internal consumption.

Collapse of Somali Central Government Period (after 1991)

After the collapse of the central government of Somalia, the people of the former British protectorate (known as Somaliland) proclaimed their independence from Somalia in May 1991. The administrative regions of the newly formed State of

Somaliland include the former Awdal, Waqooyi Galbeed, Togdheer, Sool and Sanaag regions of Somalia.

The collapse of Somali central government in 1991 led to the breakdown of all institutional and social structures and appropriation of land and water resources by illegal means increased. Any positive impact of interventions by previous regimes was reversed.

In recent years many initiatives have been taken by the Government and national and international development agencies to reverse this negative trend. Details of such initiatives are given elsewhere in this document (Table 12, Chapter 3).

From the historical review above, it is clear that different regimes tried various systems of land use planning and had unique rules and regulations concerning the use of land resources. Each regime scored its own success and failures in this respect. Present land use planners can learn from these experiences and build on traditional land use management practices, as well as on successful modern interventions and programmes.

1.3 Major land use issues in Somaliland

Some of the major issues related to land use in Somaliland are listed below¹. Land disputes are very common and often lead to violent conflicts.

- Loss of traditional grazing systems
- Lack of control over communal grazing areas, forests reserves and game reserves
- Increased enclosures curtailing the mobility of pastoralists during seasonal migrations
- Increased number of livestock causing more pressure on rangelands
- Illegal occupation and land grabbing in urban areas
- Increasing rural dispute over boundaries of land properties, and ownership and/or access to water points and pasture
- Loss of rich patches of dry season grazing for other uses. (residential, cropping)
- Increased cultivation of marginal lands
- Decreased crop productivity due to insecurity and break-down of infrastructure
- Declining biodiversity and increased land degradation
- Increased charcoal burning for export and decline of forest resources
- Proliferation of water points (mainly berkads) and concomitant multiplication of rural settlements in the previous seasonal controlled grazing zones or other protected areas
- Decimation of wildlife through ruthless hunting and poaching, and loss of habitat.

1.4 Why land use planning in Somaliland?

Somalis have practiced some sort of land use planning since pre-historic times. Pastoralists plan to move their herd from one area to another depending on the seasons and availability of fodder and water. Sedentary farmers often fence in an area and decide to use one part for cropping and another part for livestock. The latter is called farm planning and the main stakeholder is the farming family.

¹ This list is based on interviews with land user (SWALIM, 2007) and on literature (ADP, 2006-2007; WSP International, 2005; IUCN, 2006)

Coherent communities also plan the use of the area under their control. Certain trees or woodlands may be protected or have restricted use and grazing areas are also subject to many unwritten rules. Also in urban areas there are examples of land use planning by individuals or local communities.

More systematic and institutionalized land use planning is needed when traditional methods of land use control break down or prove to be inadequate because of war, strong outside influences, sudden population increases or other demographic changes, severe droughts or other calamities, or rapidly changing needs and ambitions of the resident population. The people of Somaliland have been subject to many rapid and often traumatic changes and influences and in many instances traditional methods of land use planning are no longer relevant, effective and/or sustainable (see also Section 1.3).

Driving forces in planning are unsustainable or unproductive land use, land use conflicts or the need for a quite different pattern of land use dictated by changing circumstances.

The Government of Somaliland recognizes the importance of land use planning. The Ministry of Agriculture (MoA) mentions integrated land use planning as one of the tools to promote sustainable agricultural resource use and management and LUP is listed as one of the short-term interventions (MoA, 2007). The same Ministry, in its Draft National Agriculture Policy (MoA, 2008), also advocates village land use planning as a tool for implementing policies for better land use and management and a basis for agricultural extension services. The Ministry of Pastoral Development and Environment (MoPD&E) in its Draft Final Strategic Plan 2008-2010 recognizes that land is a primary natural resource that requires wise usage for sustainable development, and land use planning based on accurate and reliable data. And both MoA and MoPD&E in their Somaliland land tenure policy (2nd draft, 2008) give local authorities and district governments the authority to undertake land use planning and enforcement of approved development plans in collaboration with representatives from the respective line ministries.

In a Policy Brief for the European Commission the IUCN recommends the development of the institutional and human resource capacity for environmental and natural resource planning and management at various administrative levels, including integrated land use planning (IUCN, 2006).

Presently, due to the socio-political situation of the country, land resources are mostly used and managed by individual land users, without much consideration for the welfare and future of the wider population. However, the current Government has identified Land Use Planning as a tool that could guide the implementation of policies, programs and projects based on a sound technical framework towards sustainable natural resources management. Land Use Planning is a tool that is successfully used by many countries in the world for natural resources management and the improvement of livelihoods.

A list of issues which require land use planning is given in Box 2.

The present land use planning guidelines for Somaliland respond to the recognized need for institutionalized land use planning in the country. The Guidelines are of a technical nature and are meant to guide relevant institutions and authorities in land use planning activities at village, district and national level.

Box 2: Activities and issues requiring land use planning

- Avoid or settle land use disputes
- Secure long-term benefits of sustainable land resources management
- Protection or rehabilitation of natural resources
- Identify unexplored land use potential
- Optimize present land use
- Create environmental awareness
- Harmonize various sectoral development plans related to land use
- Plan new settlement areas

1.5 Conditions for successful land use planning in Somaliland

Although the need for (institutionalized) land use planning in Somaliland has been recognized, it can only be successful if a number of issues are addressed simultaneously. These include:

- Promotion of national peace and reconciliation
- Restoration and harmonization of all relevant laws and legal institutions
- Law enforcement and restoration and strengthening of public security

Reversely, participatory land use planning if properly conducted, will not only contribute to sustainable land use and improved livelihoods, but also to peace and security at all levels.

1.6 Purpose and content of land use planning guidelines for Somaliland

As stated before, land use planning is a tool for sustainable resource use and contributes to conflict resolution. However it should not be used as a magic word, or a technology that can be acquired and solve all the problems. Land use planning involves a series of procedures and involvement and commitment by all the stakeholders. Although high-tech tools can play a role in some of the LUP procedures, it is mainly about people and their inter-relationships.

The purpose of the Land Use Planning Guidelines for Somaliland is to explain the principles and procedures of land use planning in general, and how it can be applied in Somaliland at various levels in particular.

The guidelines will also highlight some of the challenges faced by land use planners in Somaliland. These include the lack of harmonized land use policies and legislation, weak law enforcement by government authorities and limited capacity in terms of human resources and investment capital.

1.7 Levels of land use planning

The most basic level of land use planning is farm planning. At the same level, even urban households practice some sort of land use planning in their residential plots.

Next levels of planning are village or community planning, district or watershed (meso-level)² planning, national planning and international planning.

Planning is often best based on administrative units or levels of authority, such as villages, districts, provinces or the whole nation. This is because data are often available for administrative units only, and because many stakeholders are organized at administrative levels, which make negotiation and implementation of the land use plan easier. However, if the focus is on the sustainable use of specific natural resources, planning can also be based on natural units (e.g. "land management plan for the Golis Mountains" or "natural resources management plan for the Dur Dur catchment") or specific types of land cover and use (e.g. "management plan for the montane evergreen thickets of Somaliland" or "soil and water conservation for the rainfed cropping areas). In Somaliland, nomadic pastoralists are usually among the main stakeholders, and care should be taken to consider both their wet season and their dry season grazing areas. The boundaries of a planning area may have to be modified during the planning exercise, when more information becomes available, or during the course of implementation.

The present guidelines mainly deal with the following three levels of planning: village planning, district planning, and national planning. The three levels are strongly linked and interactive, and each level comes with its own policies and institutions (see Table 1 and Figure 3).

1.8 Methods of land use planning

There are many methods of land use planning. Many countries and authorities have experimented with top-down planning, whereby technocrats, politicians and rulers have imposed "plans" and measures on the rural population. Also international development agencies and NGO's have often designed and executed rural development plans without much involvement of the main stakeholders. Top-down planning has the advantage of speedy implementation, particularly if backed-up by effective controlling (state) agents or by direct financial incentives. A great disadvantage is that many stakeholders may not understand the plan or not agree with it and actively or passively sabotage it.

At the other end of the spectrum are traditional methods of land use planning, as an essential part of local culture, and encapsulated in written and unwritten rules, religion, myths and taboos.

Whereas top-down planning and implementation attempts fail if not supported by local communities, local efforts may collapse without higher level support. A two-way communication assures that village land use plans are in tune with higher level plans, interests and policies, and that planners and decision makers at the district to national level are sufficiently informed about the priorities identified by villagers.

² Meso-level is somewhere between village level and national level. It could be at district or province level or encompass a large natural area such as a watershed. In this and the following Chapters meso-level planning is usually referred to as District Planning.

Table 1: Levels of land use planning

Level	Objectives	Responsibilities
NATIONAL	<ul style="list-style-type: none"> • Land use policy • Legal framework • National programmes • Establishment of national conservation areas • Facilitating LUP at lower levels 	<ul style="list-style-type: none"> • Ministries and Institutions • National Task Force • Inter-ministerial Coordination Committee
DISTRICT	<ul style="list-style-type: none"> • Regulating land use and checking of procedures • Establishing technical services • Promoting dialogue • Capacity building • Translating strategies into action • Facilitating LUP at community level • Establishing protected areas 	<ul style="list-style-type: none"> • Govt. technical services • NGOs • District Development Committee • Land Boards • Watershed Management Committees
COMMUNITY	<ul style="list-style-type: none"> • Participatory Rural Appraisal • Village land use plan • Dialogue, negotiation • Implementation of land use plans 	<ul style="list-style-type: none"> • Land Resource Management Group • Village Development Committee

Current methods of land use planning involve a systematic evaluation of resources, an active participation of all stakeholders and an interactive partnership between governments and people. Both FAO and the German Technical Cooperation Agency (GTZ) have developed LUP Guidelines along these principles (Box 3).

Box 3: Land Use Planning Methods and Guidelines

GTZ, 1999. Land Use Planning – Methods, Strategies and Tools. Eschborn, Germany

FAO, UNEP, 1999. The future of our land. Facing the challenge. Guidelines for integrated planning for sustainable management of land resources. Rome. (reprinted 2007)

FAO, 2004. Guidelines for Participatory Land Use Development in the Municipalities of Bosnia and Herzegovina

1.9 Who should initiate land use planning activities

The initiative for land use planning activities will come from Government authorities at national, regional or district level, or from other authorities and development agencies with approval and support from government. The process should be conducted in accordance with national policies and legislation as related to sustainable land use.

Ideally, the plan formulation process, including formulation of the objective, should come from the people involved, with assistance as needed from government agencies at district and national level, NGOs or private firms. The whole process should be facilitated by a dedicated land use planner. The tasks of a land use planner are given in Box 4.

Box 4: Tasks of the land use planner

An individual, group, institution or coalition of groups is required to take action to mobilize the stakeholders and create at least the minimum critical mass of interest, expertise and resources required to get the land use planning process to a self sustaining level of operation.

Tasks of the land use planner include

- identifying the stakeholders
- collecting the baseline information needed to get the process started
- sensitizing the participants to the nature of the process
- facilitating the negotiations
- providing logistical support
- coordinating the activities of the various institutions

Source: FAO, 2004

In the case of community land use planning district authorities will play an important role, as foreseen in the Draft National Agriculture Policy of the Ministry of Agriculture (see Box 5).

Box 5: Policy Statements Ministry of Agriculture

Village land use planning will be based on the following criteria:

- Local land use plans will be developed by District Councils in collaboration with village councils.
- Land use planning will be done in a participatory manner to involve beneficiaries. Planning will be preceded by studies to determine existing land tenure, land use patterns and land capability (land suitability).
- Village land use plans will be used as a tool for implementing policies for better land use and management.

Source: MoA, 2007

The districts themselves may need stimulation and assistance from national government to engage in land use planning activities, both at district and village level.

2 FAO-UNEP GUIDELINES FOR LAND USE PLANNING

2.1 Introduction

The LUP Guidelines for Somaliland are based on the FAO-UNEP Guidelines for integrated planning for sustainable management of land resources (FAO, UNEP, 1999). Four closely linked factors play a crucial role in land use planning:

- technical solutions in optimizing land use
- institutional aspects
- legal aspects
- socio-economic aspects

Essential is the active participation of the stakeholders in planning and decision making. Decision makers, as well as users of the land should be involved from the beginning.

Planning is both integrated and interactive:

- Integrated

- it combines elements of both the bottom-up and top-down approach
- it takes into account the complex biophysical and socio-economic variables which determine the land use system
- it considers legal and institutional aspects which facilitate the implementation of the plan

- Interactive

- it is a negotiation process, in which land users interact among themselves and with specialists
- different levels (national, sub-national and local level) interact in the planning process

2.2 Seven key elements in integrated land use planning

There are seven key factors associated with successful land use planning, as shown in Figure 1 and briefly explained in the following paragraphs.

Key factor (a): Problem identification and formulation of the objective

Systematic land use planning is only needed when a problem or an opportunity has been identified. Once the need for LUP has been recognized, all activities should be framed in a clear objective.

Objectives are scale-dependent and will be different at the national, sub-national and local level. Stakeholders at each of the levels (see key factor 2) should be involved in formulating the objective.

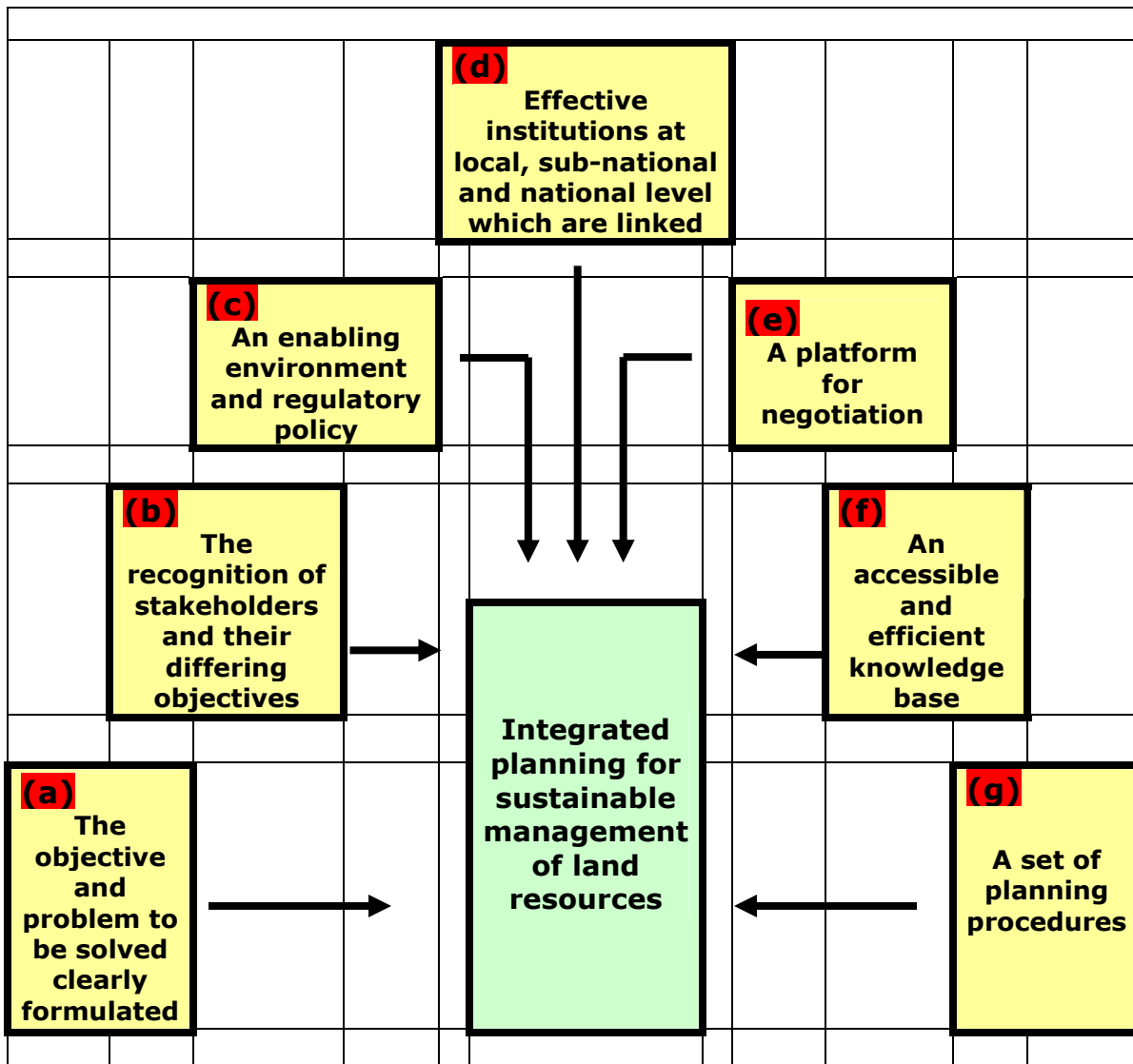


Figure 1: Seven key factors in integrated land use planning

Key factor (b): Recognition of stakeholders and their differing objectives

- Stakeholders

There are various types of stakeholders, including:

- Those having control of a resource
- Those needing or seeking control of, or access to, a resource
- Those who are affected by the use of resources by others

With very few exceptions, there is always more than one stakeholder or stakeholder group claiming an interest in the use of a particular area of land. This is particularly true for land that has a rich variety in resources. Stakeholders include the residents and land “owners”, but also outside groups such as NGO’s and Government.

A stakeholder is anyone, or any group, or any institution having an interests in, or being affected by, an issue or activity or transaction, and therefore has a natural right to participate in decisions relating to it.

- Participation

Participation can be of various nature, as shown in Table 1. Although there is place for all these types of participation, without interactive participation and/or self-mobilization of the most important stakeholders it will be very difficult to find durable solutions to land use problems and to advance sustainable management of land resources.

Table 2: Types of participation

Type	Description
Passive participation	people are told what is going to happen or what has happened
Participation by giving information	people participate by answering questions from agents
Participation by consultation	people participate by being consulted
Participation for rewards	people participate in return for material incentives
Functional participation	people participate to meet predetermined objectives related to a project but are still dependent on external initiators
Interactive participation	people participate in joint analysis, which leads to action plans and formation of new local institutions or strengthening existing ones
Self-mobilization	people participate by taking initiatives to change systems independent of external influences
<i>Source: IIED, 1995</i>	

Key factor (c): An enabling environment and regulatory policy

Land use plans and land use planning activities at various levels should be “in tune” with each other and not be contradictory. Village development plans should be in line with district development plans, and district development plans should agree with a national land policy. A number of laws and regulations should be in place, concerning the natural resource management and the environment.

- Land use Policy:

To achieve sustainable development, governments should have a national policy on land use. Such a policy should include strategies for implementation, usually a mixture of incentives, regulations and law enforcement. To be effective, the land use policy should be formulated through a participatory and integrated process, and be endorsed by the majority of the population. Examples of policies in Tanzania are given in Box 6; land policies and (draft) land legislation from Somaliland are discussed in Chapter 3.

A Land use policy is essentially an expression of the government's perception of the direction to be taken on major issues related to land use and the proposed allocation of the national land resources over a fixed period of time. It has a production and a conservation component

Box 6: Examples of policies in Tanzania

- Agricultural Policy of 1997 whose aim is to promote integrated and sustainable use and management of natural resources.
- National Land Policy of 1995 which states inter alia, that land use planning will be done in a participatory manner to involve beneficiaries.
- Tanzania Forest Policy of 1998 aimed at enabling participation of all stakeholders in forest management and conservation.
- The Wildlife Policy of Tanzania of 1998 which emphasizes on involving rural communities and other stakeholders in taking joint responsibility for the sustainable management of wildlife and other natural resources.
- National Environmental Policy of 1997 with the overall objective of raising public awareness and understanding of the essential linkages between environment and development, and to promote individual and community participation in environmental action.
- The National Policy on NGOs in Tanzania, 2nd draft of 1998 which calls for dynamic and working NGOs which will promote peoples participation in the development process of the country.
- The Local Government Reform Agenda 1996 - 2000 which states in part that the local governments will facilitate the participation of the people in planning and executing their development programmes; and foster partnerships with civic groups.
- In the Development Vision 2025 for Tanzania, great emphasis is placed on equal opportunity to all citizens to participate in and contribute to the development of the nation.

Source: NLUPC, 1998

- Land Tenure:

Secure land tenure is an effective incentive to production and conservation. This does not necessarily mean that land users should be the permanent "owners" of land or specific natural resources, but that they are secure enough to invest in the land and want to preserve it and develop it for future use.

Land tenure is a way of regulating rights, access and control of land for the mutual benefit of the land user and the government

Somaliland is in the process of developing a number of policies, strategies and laws related to land use. These will be further discussed in Chapter 3. See also Table 14.

Further reading:

- ✓ Land tenure and policy issues in land use planning. With special reference to Eastern and Southern Africa. (DSE, 1998).
- ✓ Land tenure in development cooperation. Guiding principles. (GTZ, 1998).
- ✓ FAO, 2007b. Good governance in land tenure and administration. FAO Land Tenure Studies 9. FAO, Rome.

Key factor (d): Effective institutions

Land use planning needs consultation, endorsement and decision making at various levels. Implementation of land use plans needs long-term supervision, monitoring and action. For this to happen, effective institutions are needed with a clear mandate. It is not important what these institutions are called, as long as they represent all sectors and most important stakeholder groups and are empowered to make decisions. It is mostly the government at various levels to facilitate and ultimately control these institutions, although membership should include representatives from all stakeholders.

Land use planning institutions and task forces at various levels, and their functions are further discussed in Chapter 2.

Key factor (e): Platform for negotiation

Land use planning usually involves trade-offs between the stakeholders, and negotiations have to take place. These negotiations should also involve stakeholder groups which are traditionally silent, or passive, and these groups may have to be represented by the Government or an NGO. Although in the long run everybody may be a winner, in the short term some privileged groups may have to compromise to some extent. The negotiation stage of land use planning is probably the most important of all stages, and its outcome will determine the success and durability of the whole exercise.

The institutions identified at various levels (see *key factor 4*) can also serve as platforms for negotiation.

The Local Land Resources Management Groups will be the key institution for negotiation and settlement of disputes at local level. When conflicting objectives of different stakeholders or land disputes cannot be resolved at the lowest level, they can be referred to the sub-national body. The courts are a last resort if negotiation fails to resolve a dispute.

Key factor (f): Efficient and accessible knowledge base

Effective negotiation and decision making on land use cannot take place without a knowledge base that is useful and accessible to all stakeholders.

The type of information needed very much depends on the nature and objectives of the land use plan, and may include the following:

- Land Resources: climate, topography, soil, water, vegetation, present land use, etc.
- Improved technologies of resource management
- Current living conditions, problems, needs and objectives of stakeholders
- Institutional and legal framework; land tenure to land, water, trees and wildlife

- Economic conditions such as prices, markets and interest rates

In case of local level planning, much of the information can be collected and analyzed by the resident land users themselves, through Participatory Rural Appraisal (PRA). Experts from outside may give advice, provide options, or facilitate the negotiation process, but the final decisions should always be made by the land users themselves.

Key factor (g): Land use Planning procedures

Land use planning should follow a clear set of procedures. Although procedures may differ at village, district and national level, the overall method is the same at all levels. The following Section (Section 2.3) will set out the “steps” which are essential in land use planning.

2.3 The planning method

2.3.1 Introduction

A schematic overview of the Integrated Approach to Planning for Sustainable Management of Land Resources (IPSMLR) is given in Fig. 2.

The planning process is an iterative and cyclical process with nine essential steps. The ninth step (Monitoring and Evaluation) is an activity that should run during the entire planning procedure, and even after that. The overall planning method is independent of scale, which means that similar steps are needed at village level, district level and national level.

The sequence is iterative and needs constant adjustment as the different elements, especially financial or economic conditions tend to be variable or even unstable. Therefore, a land use plan is never “finished” and is a continuous learning process. By following a clear and well documented procedure, adjustments can be made relatively easily. Generally, the process of trust-building and negotiation between stakeholders is more important than the land use plan itself.

2.3.2 The nine steps of land use planning

STEP 1: Identification of land use problems and stakeholders; formulation of objectives

The overall objectives of land use planning vary at different levels, as follows:

In a national land use policy or a master plan, the long-term development objective is formulated for allocation of the natural resources of the whole country. This objective has a production and an environmental component.

At the sub-national level, a district land use plan will have an objective, which aims at development in the district or other relevant area (e.g. a watershed). Its objective should conform to and serve the objectives in the overall land use policy of the country.

In a community land use plan, people will formulate objectives relevant to their community. The objective should consider short-term and long-term aspects and be focused on sustainable development of the community and its land resources. Such plans will fit into and feed the district or watershed plans thereby creating mutual support.

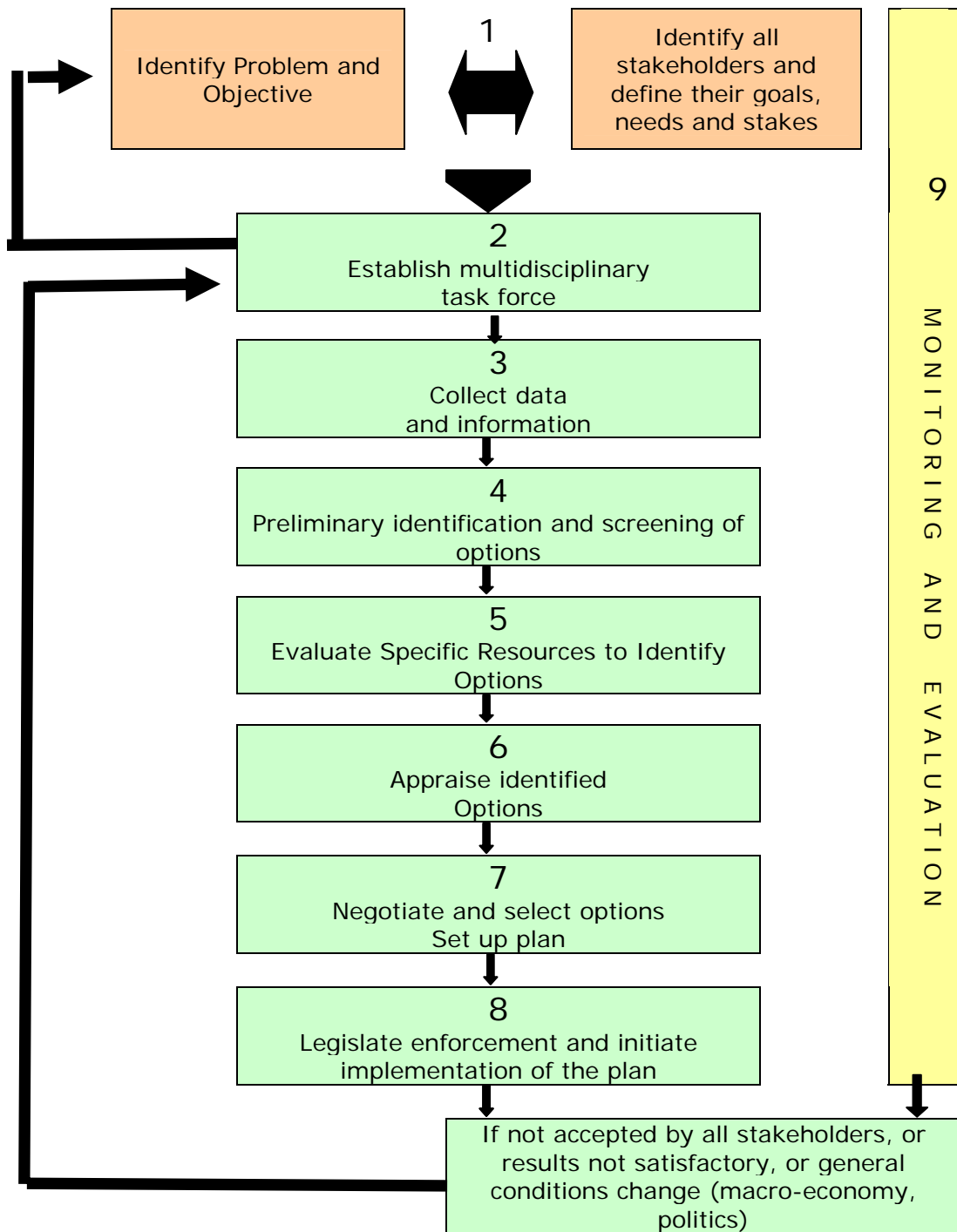


Figure 2: The planning method
(after FAO-UNEP, 1999)

Land use planning activities at various levels are closely linked. For example, land use plans at village level should be in line with national policies and legislation, whereas national policies should reflect the reality on the ground and the needs and aspirations of the local residents.

Stakeholders and formulation of objectives

A land use planning activity can start in two ways:

- ❖ an individual, group or institution identifies a problem, or a symptom of a problem, and wants to do something about it
- ❖ a government institution or development agent wants to develop an area and promote sustainable land use in cooperation with the land users

The first task of a land use planner³ is to identify all stakeholders who then formulate the objective of the LUP exercise. This is an iterative process: as more or different stakeholders are identified, the objectives may change and the stakeholders have to be assessed again.

There are different types of stakeholders and different types of participation (see Section 2.2). Different stakeholders have also different objectives. A hypothetical example of various stakeholders and their objectives is given Table 3. Various objectives of village land use planning are given in Box 5.

It is the task of the coordinating institution, or the LUP facilitator, to compile the various goals and objectives of the stakeholder groups. A number of techniques can be used at for this purpose, some of which are indicated and illustrated in Chapter 6.

At this stage it is important that not only the visible, vocal and organized stakeholders are involved, but also stakeholders with “no voice”.

Table 3: An example of stakeholders and their objectives

Level	Stakeholders	Objectives
National	Min. of Agriculture Min. of PD & E International Livestock Research Institute NERAD (para-statal) UNDP	Increase and stabilize sorghum yields Reverse land degradation Improve marketing; product quality control Prepare for drought Stimulate development
District	District Administration UNICEF Agric. Supply companies Local NGO	Settle displaced people Promote nutrition gardening Increase sales and profits on farm inputs Promote forestry plantation; agro-forestry
Local	Wealthy livestock owner Poorer farmer Trader Traditional leader Landless peasant	Maximize profits Feed family; avoid risks Increase business opportunities Protect land resources for use by his people Acquire piece of land; find work

³ The land use planner (or “planner”) could be an individual, institution, group, or several groups.

Box 7

Broad objectives of the village based natural resource management planning process

- Map and understand land use, in terms of ecology and natural resources
- Understand who uses what resources, when and where
- Understand the decision-making process
- Understand the different customary and formal institutions, which exist at the community and wider levels, and their role in land use planning
- Identify and locate land degradation and natural resources management problems
- Provide support to communities to identify causes and develop solutions for action

Source: Barrow et al, 2000

Awareness creation

An essential part of “step 1” is information sharing and the creation of awareness by the affected population about the purpose of land use planning activities and the issues to be addressed. Problems, development and progress are often perceived differently by various stakeholders, e.g. authorities, development agencies, farmers, entrepreneurs, village elders.

An example of village-level stakeholders and their varying interests is given in Table 4.

Stakeholder Analysis

Stakeholder analysis concerns the inventory and scrutiny of:

- Stakeholders characteristics, such as interest, power, control over resources, knowledge and information, how they are organized or represented and limitations for participation
- Their relationships with others
- Their influence and motivation towards decision making, including expectations, likely gains and willingness to participate and invest resources

Further useful information on the stakeholders can be generated through the analysis of their relative power and interest. These two variables are defined as follows: power is the ability of a stakeholder to facilitate or impede the achievement of an activity's objectives and interest is the degree to which the stakeholder is willing to participate in the process.

The following questions could be useful in assessing the power and interest of the stakeholders:

- Who is dependent on whom?
- Which stakeholders are organized? How can that organization be influenced or built upon?
- Who has control over resources?
- Who has control over information?

- Which problems, affecting which stakeholders, are the priorities to address or alleviate?
- Which stakeholders' needs, interests and expectations should be given priority attention with respect to the process?

A variety of techniques are available to analyze these variables, as detailed in Chapter 6 (power/interest matrix and "Campfire" analysis).

To draw the attention of everybody involved and to encourage their cooperation, the planner should try to demonstrate that there is something to gain for everybody at the end of a successful land use planning exercise.

Table 4: Village-level stakeholders and their interests

Stakeholder	Stake/Interest
Farmers - inside	Farming/Enclosure for Grass
Contractors from urban - outside	Contracting purposes related with farming activities
Relatives displaced person - outside	Consumption of farm produce/grazing
Livestock owners- inside	Grazing
Grass cutters - inside	Grow and pile grass to use or to sell
Grass collectors from outside	Buy grass from the community farmers
Surrounding village - outside	Get livestock and farm produce to the markets
Milk group - inside/outside	Get milk from their livestock
Woodfuel collectors - outside/inside	Get woodfuel from the area using the dry/wet trees
Pastoralists – outside	Grazing
Stalk buyers – outside	Buy stalk from the area
Milk buyers - outside/inside	Get milk from Qalloa
INGO – outside	Carry out rehabilitation and development activities
Village institutions - inside	Village social, economic and development affairs
Commercial activities - inside/outside	Have a commercial activity with the villages (qat sellers, tea shop, etc)
LNGOs – outside	Undertake rehabilitation of village infrastructure
Qat farm owners – inside	Income generation
Regions Administration - outside	Same as the Government
Politicians – outside	Politics
Stalk produces/sellers – outside	Get a market for their stalk (fodder for animals)
Internal religious groups - inside	Village region leading and praying
Hawo/Fadumo - inside	Focused on women's religions affairs
Youth (in the community) - inside	Be available labour force in the village
Youth – outside	Have contractual stakes in the village
Sultan and Aqils - inside	Tribal linkage having some property in the village
Women group - inside	Overall livelihood stake in Qalloa

example from Qallao village in Somaliland (after IUCN, 2000)

STEP 2: Establishment of Multidisciplinary Task Forces and Institutions

Representatives of groups which have a stake in a land use planning exercise form a task force, mandated to formulate and implement a land use plan or land use policy. There could be ad-hoc committees and groups, dealing with LUP activities of limited scope and duration, but ideally they should be institutionalized to be able to deal with long-term implementation and supervision.

Task forces and land use planning institutions at different levels are shown in Figure 3. Land use planning activities can be initiated at each level, depending on the issues to be addressed and/or the size of the planning area. Ideally, the initiative for village land use planning should come from the villagers themselves, thereby immediately creating a sense of ownership.

The main functions of LUP task forces and institutions are summarized below.

NATIONAL LAND USE PLANNING COMMITTEE

At national level central government will play an important role, in the form of various ministries, departments and institutions, together with important development agencies. Land use planning is always multi-disciplinary and interactive and a National Land Use Planning Committee should be independent of existing sectoral government institutions. Examples of national level institutions are inter-ministerial committees, land boards, and high level land use planning bureaus.

Functions of National Land Use Planning Committees include:

- Formulate and update land use policy and related legislative and institutional matters
- Coordinate LUP activities at national level
- Advise government on issues related to use and management of land resources
- Facilitate exchange of information to/from district and village level
- Develop and maintain information systems on land resources and land use
- Predict and track land use needs and priorities
- Coordinate formulation, implementation and monitoring of development plans
- Final decision making in cases of conflicting objectives in land use

DISTRICT LAND USE PLANNING GROUPS

Required at sub-national level are District Committees or Land Use Planning Groups. As at national level, District Land Use Planning Groups (DLUPG) should be multi-disciplinary. Various Government institutions will be represented, as well as traditional and elected leaders and local and international development agencies. Depending on the tasks at hand, representatives of the private sector could also be co-opted.

- Implement district level land use planning activities
- Provide technical support to Local Resource Management Groups
- Coordinate village-level land use planning and assist with resolving conflicts
- Inform National Land use Planning Committee of district level priorities

LOCAL RESOURCE MANAGEMENT GROUPS

At local level Local Land Resource Management Groups (LRMG) should be in place. LRMGs serve as a forum where the views of all interest groups in the community can be represented. These groups could be dealing with all land resources in an area, or specialize in one of the main resources, e.g. Range Management Groups, Sub-catchment Water & Irrigation Management Groups, Forest Management Groups, etc. Some existing local institutions may already play an important role in land resource management and should be involved. In Somaliland these are the Village Committees (VC) or Village Development Committees (VDC). Examples of other relevant institutions are voluntary associations, mutual aid and work groups, religious groups, woman's group, etc. Government cannot impose LRMGs on the community, but can facilitate them and make sure that all stakeholders have a voice.

Functions of LRMG include:

- Addresses and resolves existing or potential resource use conflict within community
- Addresses resource degradation or unsustainable use patterns
- Deals with external stakeholders, such as central government, entrepreneurs, NGOs
- Manages local level LUP activities
- Manages funds for development

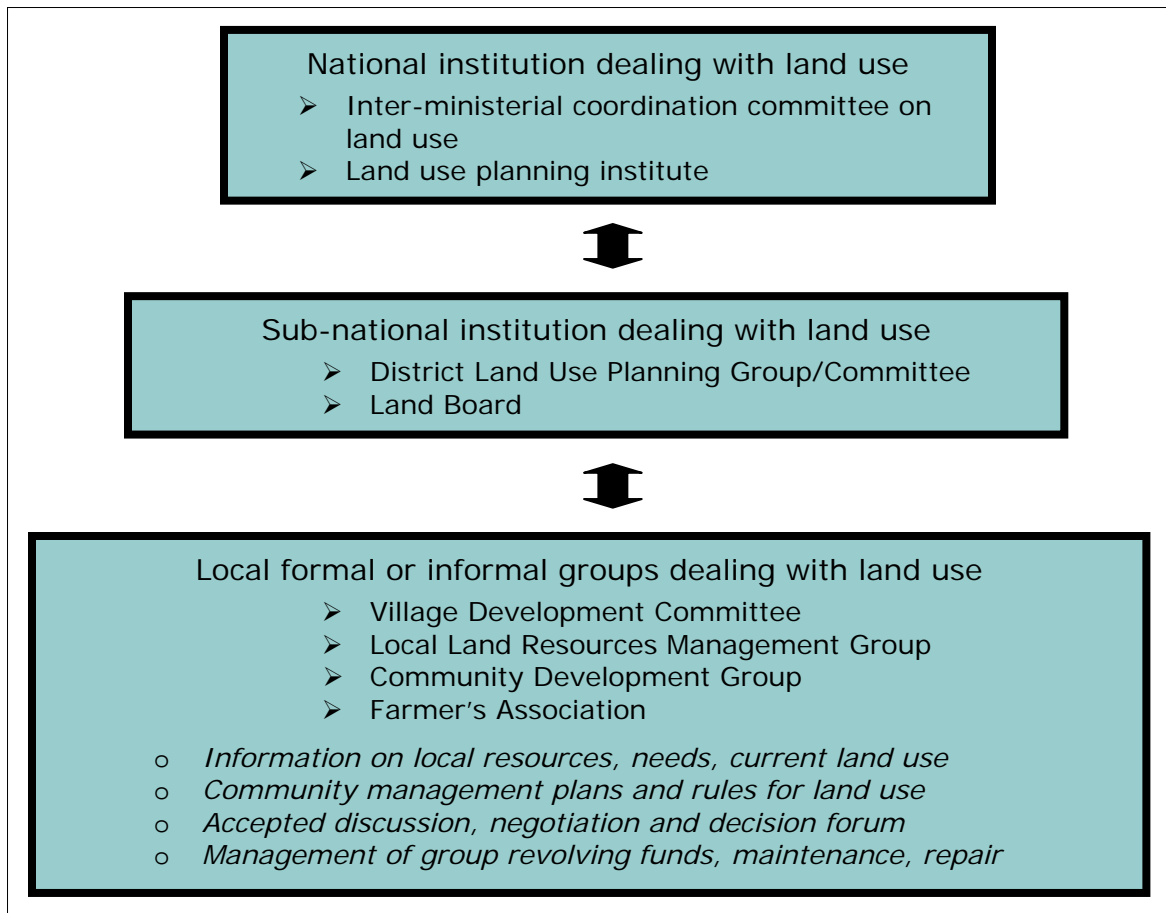


Figure 3: Effective institutions at various levels

STEP 3: Collecting Data and Information

The systematic evaluation and planning of land resources require basic data and information about the land, the people and the organization of administration and services. This is true at any level of detail, but the range and the amount of information, as well as its accuracy, vary greatly according to the scale and objectives of the land use plan. Five basic principles apply to the collection of information for land use planning:

- ✓ Data and information collection should be objective and meet users' demands.
- ✓ Data and information collection should be geared to gaining an understanding of how the land/land use ecosystem functions. What are the processes involved, how do land properties affect land use, and what is the impact of changes in land use on the land resource?
- ✓ Data and information collection should be efficient, focusing on minimum data sets, and flexible, to allow collection of any additional data if necessary.
- ✓ Physical data is needed in a spatial format, as maps or geo-referenced observations. The spatial variation in land resources is the main justification for land use planning.
- ✓ Data and information collection should be part of a continuous process. Rather than being seen as a one-time exercise needed to produce a rigid land use plan, the initial data set should be used to formulate a flexible, rolling land use plan, which can later be modified in the light of new information, or according to changing circumstances (temporal variation).

Table 5: Nature of data and information required for land use planning

Land resources data	<ul style="list-style-type: none">• Climate• landforms and soils• land cover, vegetation• water resources
Land use related data	<ul style="list-style-type: none">• present land use and characteristics• selected physiological characteristics of crops (as determining ecological requirements)• land utilization types and production systems (present and potential)• ecological requirements of land utilization types, production systems, land use
Social-economic data	<ul style="list-style-type: none">• population (including age and gender distribution, stakeholder)• living conditions (including workload and cultural aspects)• access to markets• costs of production and product prices• socio-economics of communities
Legal data and information	<ul style="list-style-type: none">• policy documents, laws and regulations related to land• present system of land allocation• land tenure information• traditional ownership and user rights
Institutional information	<ul style="list-style-type: none">• involved institutions and their mandates and resources• links between institutions• support services (extension, etc.)
General data	<ul style="list-style-type: none">• infrastructure, accessibility

Nature of Data and Information

An indication of the types of data and information needed are listed in Table 5. A list of available data, maps and reports on various land resources in Somaliland is given in Chapters 3 and 4 on national and district level land use planning respectively. Chapter 4 also details the information from SWALIM, FSAU and other sources.

STEP 4: Preliminary Identification and Screening of Options

Ideas for improved land use options will emerge through the planning process as stakeholders suggest changes and information becomes progressively available. Review of these options by the task force and land use planner should be a continuous process, which is consistent with the iterative nature of land use planning.

The preliminary identification and screening of options could be a simple process, particularly if the objective of the land use plan addresses a single problem in a limited area. However, usually there are various problems to deal with and a large number of options to be considered. Ideas could come from the appointed task force, collaborating institutions, stakeholders, technicians and also potential donors. Brainstorming may be needed at first, followed by preliminary screening and ranking.

Ideas may also be gained from literature and internet search. Some useful publications in this regard are listed in Table 6.

The review may take the form of a workshop, in which initial objectives are reviewed in the light of the proposed options and the new information that has been collected. Its first task is to formulate possible improved land use options (e.g. modified or new production systems). Secondly these options are screened for consistency with all the stakeholder objectives, for acceptability within the framework of government policy and legislation, and for broad feasibility according to the resources needed for their implementation. One option to include in all planning exercises is "to do nothing". The result of such non-activity can then serve as a benchmark against which the result of various "active" options can be measured.

If there are constraints identified, related to the existing general conditions (policies, regulations, etc.), potential solutions or alternatives have to be sought. Changes to some of the general conditions, if possible, might be considered. Those land use options which pass this screening process are subjected to land evaluation.

STEP 5: Evaluating Resources for the Identified Options

In step 4, a number of options have been identified which could help to fulfill the stated objectives of a specific land use planning exercise. If new or modified land uses are suggested, a study is needed to determine the suitability of the land for those uses. Depending on the complexity and scope of the land use planning exercise, such a study could be a simple examination based on "common sense", or a more elaborate and systematic analysis.

Basic Principles

Land resources must satisfy certain requirements if the land is to be successfully used. Many of these requirements are specific to the type of land use, and they include both the ecological requirements of the crop or other biological product, and the requirements of the management system used to produce it. Evaluation of land

resources therefore involves a comparison of the properties of the land with the requirements of possible types of land use. Defined planning areas or “land units” are rated according to how well these land use requirements are satisfied.

The principles of land evaluation are presented in the Framework for Land Evaluation (FAO, 1976) and are illustrated in Figure 4. Land evaluation consists of physical and socio-economic evaluations.

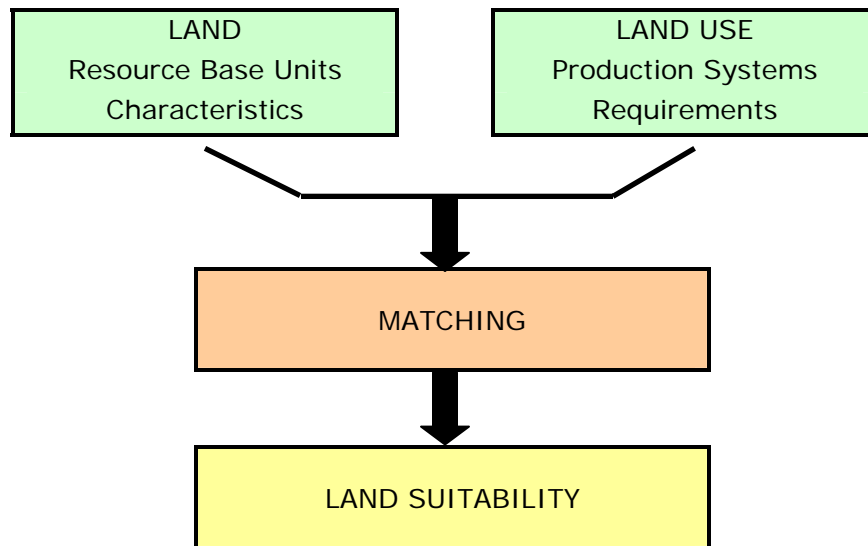


Figure 4: Land Evaluation Rationale

Land Evaluation Procedure

The main activities in a land evaluation are as follows:

- initial consultation, concerned with the objective of the evaluation, and the data and assumptions on which it is to be based
- description of the kinds of land use to be considered, and establishment of their requirements
- description of resource base units or “land units”
- comparison of kinds of land use with the types of land present (“matching”)
- economic and social analysis
- land suitability classification (qualitative or quantitative)
- presentation of the results of the evaluation

Various practical guidelines for land evaluation for different land uses are listed in Box 8

Table 6: Literature related to land use options in Somaliland – national/regional level

Land use Type	Resources	Reference
General	Rebuilding Somaliland. Issues and possibilities	WSP Int., 2005
	Managing dryland resources. A manual for eastern and southern Africa.	IIRR, 2002
	Land-based conflict project (Institute for Peace and Development)	ADP, 2007, 2008
	Dialogue for Peace	ADP, 2006
Natural resources management; soil & water conservation	Technical assistance for soil erosion and land reclamation in Borama and Baki Districts	Schaap, O., 1996
	Soil & Water Conservation. North-west Region Agricultural Development Project.	SOGREAH, 1982
	Pilot watershed management for soil & water conservation and small garden development. Geed Abeerah Pilot Project.	TAMS, 1986
	Soil and Water Conservation Techniques	WOCAT-online*
Pastoral / Livestock	Range and Livestock. North-west Region Agricultural Development Project.	SOGREAH, 1982
	Securing pastoralism in East and West Africa: protecting and promoting livestock mobility. Somaliland/Somali Region desk review.	Birch, Izzy, 2008
	Regulating the livestock economy of Somaliland.	ADP, (2007 ??)
	Agricultural and Water Survey. Livestock Development Survey.	FAO, UNDP, 1967
	Access to water, pastoral resource management and pastoralists' livelihoods. Lessons learned from water development in selected areas of Eastern Africa (Kenya, Ethiopia, Somalia).	Gomes, N., 2006
Rainfed Agric.	Rainfed Agriculture. North-west Region Agricultural Development Project.	SOGREAH, 1982b
	Land suitability assessment of a selected study area in Somaliland	SWALIM, 2007
Irrigated Agriculture	Irrigated Agriculture. North-west Region Agricultural Development Project.	SOGREAH, 1983
	Pilot watershed management for soil & water conservation and small garden development. Geed Abeerah Pilot Project.	TAMS, 1986
Forestry	Forestry and Woodland management in Somaliland	Herzog, M., undated
	Arid zone forestry. FAO Conservation Guide No. 20. Forestry Dept. Rome	FAO, 1989
	Land suitability assessment of a selected study area in Somaliland	SWALIM, 2007
Agro-forestry	Dryland Agroforestry Strategy for Ethiopia. ICRAF Drylands Agroforestry Workshop, Nairobi, Sept 2004.	Kindeya Gebrehiwot, 2004.
Nature reserves	An Outline of the Status of the Somali Fauna and of its Conservation and Management Problems.	Simonetta, 1983
Tourism	Forests, Fauna, National Parks and Relative Prospects for Tourism in Somalia.	Chauser, F. et al, 1969
Urban	Somali Joint Needs Assessment. Livelihoods and solutions for the displaced.	UNDP, WB, 2006
	Introducing (optional) planning in post-conflict contexts. The Case of the Somali cities.	UN-Habitat (undated).

* <http://www.wocat.net> or www.wocat.org for WOCAT technologies, approaches. WOCAT inventory (for first step to identify existing solutions). www.wocat.org/inven.asp. WOCAT-DESIRE: stakeholder participation and negotiation: appraising and selecting SLM strategies. three parts: identification, assessment and selection. www.wocat.org/decision.asp

Presenting Evaluation Results

Irrespective of the procedures used to evaluate land resources the results should be presented in a systematic way to enable possible land use alternatives to be identified and physically unsuitable land uses to be rejected.

The standard format for presenting the results of physical land evaluation is a matrix in tabular form, listing the suitability of different production systems or land utilization types on different Resource Base Units (RBUs). Table 18 (Chapter 4) gives an example from SWALIM in Somaliland. It is usually most convenient to present the results of land evaluation on a map, or a series of maps, so that the location of land suitable for various uses can be readily observed. An example of a land suitability map is given in Figure 8 (Chapter 4).

An example of a land evaluation exercise in Somaliland is also given in Chapter 4.

Box 8: Land Evaluation Guidelines

- Land Evaluation. Towards a revised framework (FAO, 2007)
- Guidelines: land evaluation for rainfed agriculture (FAO, 1983)
- Land evaluation for forestry (FAO, 1984)
- Guidelines: land evaluation for irrigated agriculture (FAO, 1985)
- Guidelines: land evaluation for extensive grazing (FAO, 1991)
- Environmental Impact Assessment Manual and Guidelines for the Somali Water Sector (IUCN, 1997)
- Land suitability assessment of a selected study area in Somaliland (SWALIM, 2007)
- Land Resources Assessment of Somalia (SWALIM, 2007)
- Global Agro-ecological Assessment (IIASA, FAO, 2002)

STEP 6: Appraisal of Identified Options

As a result of physical land evaluation, a series of physically suitable land use options is derived for each RBU. These options must now be appraised according to financial and economic viability, social acceptability and potential impacts on the environment. The sustainability of each option and constraints for implementation should also be vetted. The various steps in the screening process are shown in Figure 5.

Financial and Economic Viability

Agricultural production units in Somaliland are typically smallholdings, supporting complex farming systems of livestock and crop production, managed by farm-households. In general these smallfarmers make effective use of all production factors within the framework of their knowledge, resources and objectives and the constraints and risks of the location. Domestic tasks, social commitments and non-farm earning activities contribute to or compete with agricultural activities.

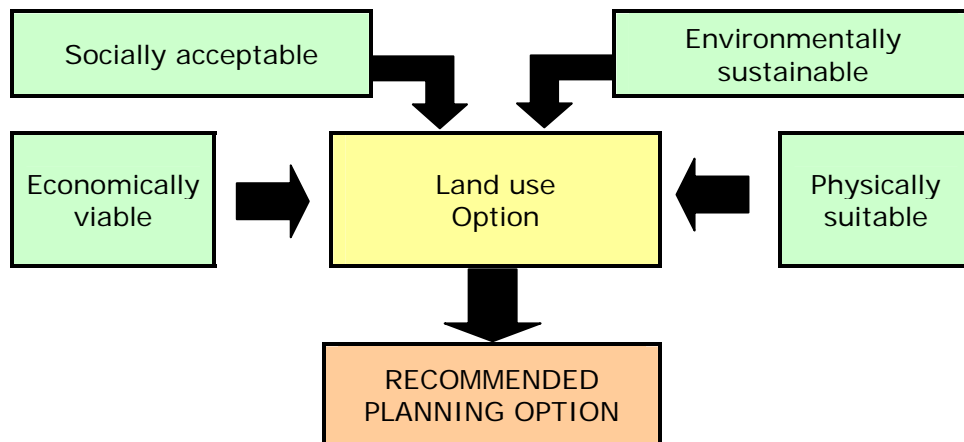


Figure 5: Appraisal of sustainability factors of land use options

Possible land use options are subjected to financial or economic analysis, depending on the aims of the land use plan⁴. Financial viability can be assessed with reference to the following parameters:

- Gross margins (see explanation in Chapter 6)
- Benefit : Cost ratio
- Net present value
- Internal rate of return

Both quantitative types of analyses, such as gross margin analyses, and the qualitative information from participatory rural appraisal, will be needed for assessment of benefits and impacts. Above all, land use options must be evaluated so that satisfactory trade-offs can be identified between the different, multiple objectives of farmers and the local community and those of the nation.

Social Impact

The active participation of all stakeholders and their representatives in the formulation of land use objectives, and a continued dialogue through the procedures of land resource evaluation, should ensure that the proposed land uses are socially acceptable to these groups. At this critical stage in the planning process, intensive consultations should be held with these groups to discuss the implications of possible land use changes. Such changes may have implications for issues such as rights of access, or impose responsibilities for management and conservation. Particular care should be taken to include groups who are not land users in the target area but who may be affected by proposed land use changes. For example, communities living further downstream in a catchment may be affected by developments involving increased water use or changes in land cover upstream. If they have not been involved previously, such groups should be involved in the discussions at this stage.

⁴ Financial analysis is based on market prices and costs. Economic analysis takes into account shadow prices and opportunity costs. Whereas a land use plan of a large farm or group of commercial enterprises may rely on financial analysis to determine feasibility, a land use plan covering a broader range of activities within a nation, a district or a community would normally use the more complex procedures of economic analysis to evaluate alternatives.

It may be necessary to conduct a focused Rapid Rural Appraisal (RRA) at community level with stakeholder groups or key informants to elucidate what exactly might happen when land use changes take place.

Environmental Impact

Sustainable land management is, by definition, dependent on maintaining the productive potential of natural resources. In addition to protecting the resources on which a specified production system depends, operation of the production system may have effects on other attributes of the environment, either at the site of production or elsewhere.

The method chosen depends on the availability of data, the knowledge of cause-effect relationships of the factors concerned, the availability of models and the requirement for quantitative results. Often a combination of the above methods is appropriate. In addition to direct effects on land resources resulting from changes in inputs or husbandry practices, likely effects on valuable or rare plants or animals should be considered. Changes in land use may have off-site impacts, such as reduced downstream flows, concentration of livestock on limited grazing areas, or interruption of wildlife migration corridors.

Resource:

Environmental Impact Assessment Manual and Guidelines for the Somali Water Sector. Somali Natural Resources Programme. (IUCN, 1997).

STEP 7: Negotiating and Deciding upon Options

Negotiation

Step 7 is arguably the most difficult part of the land use planning procedure. The previous steps are mainly technical, but now individuals and groups are going to defend their own interests.

The essence of negotiation among stakeholders is that all the people affected should be fairly represented in the discussions. Negotiation can only be effective if all stakeholders accept the forum as legitimate, or if the process and the institutional structure (task force) which supports it is legitimized by them collectively, or by law or custom. This implies that management structures may either be established by the stakeholders themselves, or by government, even if it is not a stakeholder.

At this stage of the planning cycle the stakeholders will actively participate in the negotiation process, which can be done in the form of a workshop. It is the duty of the task force and the land use planner to guide the discussion or to engage a neutral facilitator to help reach a consensus among the stakeholder representatives and ultimately a decision. If no decision can be reached, another meeting has to be arranged to allow time for the representatives to discuss relevant issues with their groups and, if required, to improve the quality and quantity of the information on which the decision will finally be based.

Sometimes it is physically impossible for all stakeholders to participate personally in all aspects of the negotiating process and negotiations have to be conducted by representation of stakeholders.

Conflict

Conflict is natural and will always exist. It is not possible to eliminate conflict once and for all so conflict resolution mechanisms are an essential ingredient in the management of land resources. An awareness of the nature, causes and potential results of conflicts must be a part of effective development planning.

In rural Somaliland conflicts between various land user groups are common. Examples of such confrontations are:

agriculturalists	<-->	pastoralists
charcoal producers (from outside)	<-->	local communities
miners (from outside)	<-->	local communities
land grabbers (local or from outside)	<-->	local communities

References to some attempts the address conflict resolution in Somaliland are given in Box 9.

Box 9: Projects dealing with conflict resolutions

Dialogue for Peace, Somali Programme:

WSP International (recently renamed International Peacebuilding Alliance) established its "Dialogue for Peace" programme in Somaliland in 1999 in cooperation with a local NGO, called Academy for Peace and Development (ADP)

- Dialogue for peace. From plunder to prosperity. Resolving resource-based conflict in Somaliland. (ADP, 2006)

Land-based Conflict Project (Somaliland)

ADP is also involved in the implementation of the "Land-based Conflicts Project" of the Institute for Peace and Development (INEF) of the University Duisburg-Essen.

- Land-based conflicts project. Somaliland Report. No more "grass grown by the spear" (ADP, INEF, 2008).
- Land-based conflicts project. Working Note (ADP, INEF).
- Land-based conflicts project. Research Concept Note. (ADP, 2008)
- Land-based conflicts Research Project. Working Note on Urban Land Conflicts (ADP, 2008)

Conflict Management: Natural Resources (FAO)

The FAO Forestry Department has developed tools, methods and human capacity for the improved management of conflicts that arise over the use of natural resources. FAO supports a participatory approach through partnerships that aim to engage all stakeholders, from policy-makers to local communities, in creating an environment where all participants can negotiate as equal partners.

<http://www.fao.org/forestry/conflict/en/>

Conflict Management: Land Tenure (FAO, 2006)

The FAO Land Tenure Service has developed a manual on the management and resolution of conflicts over land tenure rights, security of tenure and land access. Conflicts dealt with include those that arise over:

- boundaries between neighbouring families or communities
- disagreements between pastoralists and farmers over access to land and water
- disagreements between a community and government over access to state land
- overlapping customary and legal frameworks in the recognition of land rights

STEP 8. Implementation, Promotion and Enforcement of the Plan

The implementation of the plan may need both incentives and enforcement

Incentives

Various types of incentives are given in Table 7

Table 7: Land use planning incentives

Direct incentives	Indirect incentives	Immaterial rewards
Compensation (land, money) Payment, salaries for service Subsidies Credit, revolving funds	Improved food security Higher productivity, income	Peace Improved of the quality of life

Legislation & Enforcement

Conflicts related to land and water resources are negotiated by a meeting of elders (*Shir*), and the application of customary law (*Xeer*). (see also Chapter 3) They concern issues such as tree ownership and management, access to pastures and water, allocation and boundaries of agricultural land, etc. Issues are discussed until consensus is reached. Issues which can not be solved at local level can be taken to court. Somaliland's judiciary consists of District Courts, Regional Courts, the Court of Appeals and the Supreme Court.

Although more oriented towards moral and family matters, Islamic law may also play a role in land use conflicts.

Existing land protection laws need to be identified; additional laws, rules, codes may be proposed (see also Chapter 3).

Resources and mechanisms needed to prevent misuse of land are:

- law enforcement
- prosecution of offenders
- arbitration

Policing the use and management of land should be seen as a last resort.

Setting up the Plan

The main output of a participatory land use planning exercise is more than a document with (or without) maps. The interactive planning process enables the stakeholders to reflect on important issues and come up with a number of agreed activities. The process of discussion and negotiation, and of empowerment, is more important than the resulting documents.

The completion of the successful negotiation process will result in one or more of the following products:

- Plan for achieving the agreed objective and for related activities by task force in collaboration with other institutions concerned
- Maps & Report (see for example Map of Kurikuri, Fig 13 in Chapter 5)
 - recommended land use options for the various land mapping units

- supporting recommendations on sustainable land management
- environmental protection associated with each option
- Action Plan (short – medium term) (see Community Action Plans in Chapter 5)
 - What, where, by whom, when
 - Showing objectives, outputs, activities, costs and benefits
- Project proposals (see format in Chapter 7)
 - Aimed at existing organization

Examples of implemented project activities as a result of village planning are given in Box 10.

Box 10

Implemented activities as a result of village-level land use planning

Examples:

- Construction of road run-off drains
- Filling of gullies with vegetation and stones
- Revolving fund for berkad maintenance
- Establishment of tree nursery
- Awareness training workshop amongst pastoralist to promote good tree management
- Fishery project (near coast)
- Support for forest guards
- Implementation of mechanized non-mechanized soil conservation
- Creation of marine reserve (near coast)

Source: Barrow et al/IUCN, 2000

STEP 9: Monitoring and Evaluation

Although Monitoring and Evaluation (M&E) is given as the last step, it should be performed throughout the implementation process.

Care should be taken to not only monitor and evaluate the various activities and projects undertaken during the planning process (e.g. the establishment of a planning committee, the construction of a livestock corridor), but also the process itself, i.e. to what extent do the outcomes of the planning process conform to the original vision of the stakeholders?

M&E could be carried out by external evaluators or by the stakeholders themselves. The latter is called Participatory Monitoring and Evaluation (PM&E).

The difference between PM&E and more Conventional M&E is given in Table 8. Some tools commonly used in participatory M&E are listed in Box 11.

Table 8: Participatory and Conventional M&E

Participatory Monitoring and Evaluation	Conventional Monitoring and Evaluation
Broad range of stakeholders participate	Stakeholders often don't participate
Focus is on learning	Focus is on accountability
Flexible design	Predetermined design
Rapid appraisal methods	Formal methods
Outsiders are facilitators	Outsiders are evaluators
Evaluation owned by participants	Evaluation often controlled by funding agencies

Source: FAO, 2004

A somewhat “neutral” approach to Monitoring and Evaluation is given in the Guidelines for LUP of the Tanzania National Land Use Planning Commission as follows (NLUPC, 1998):

Monitoring

Monitoring is gathering data on the progress and impact of the development activities, in order to know if the objectives are being met. For that purpose verifiable indicators should be identified before monitoring is carried out.

The progress of activities is monitored against the work-plans, whereby those responsible for the activities often provide the information. It may be practical to prepare a table format which combines the work-plan with the monitoring of its progress by adding columns for information such as: achievements; rate of achievement; reasons for deviation; corrective measure (if required); and, where to verify the data (documentation). The impact of each activity is monitored against the expected results (targets, objectives) of that activity. For each objective, specific indicators are identified to measure the impact of the development effort.

The impact of land use planning on the physical environment, such as the increase in crop production or application of soil and water conservation measures, are in general easier to monitor than its impact on the activities, attitude and socio-economic environment of villagers. The physical impact can easily be assessed by measuring: yields; number and quality of soil conservation measures applied; the regeneration of formerly degrading forest, grazing and other areas; the improvement of settlements, etc.

The impact on the activities, attitude and socio-economic environment of people has to be measured in a more indirect way. For instance, the degree to which minority groups have improved their participation in decision-making may be measured by the extent to which they have participated in the various village meetings.

Monitoring can take place during the activity itself, e.g. preparation of minutes from village meetings, or as a separate activity afterwards, e.g. recording progress of implementing soil and water conservation measures.

Evaluation

Evaluation is the process of assessing the impact of activities carried out with a view to possible measures for improvement. Evaluation is based on the results of monitoring.

Simple baseline-studies are needed at the start of the land use planning process so that the impact of activities can be assessed during implementation and afterwards (long term impact). (For Indicators see Appendices Tanzania Guidelines)

Since the environment in a district and village is subject to continuous change, evaluation of the effects of a specific land use planning exercise after some years should not only use, as reference, the data of baseline studies, but also compare it with the 'without-

project situation'. The latter is the situation where prevailing trends (concerning land use, production, etc.) continued without land use planning.

Documentation

Proper documentation of work-plans, monitoring and evaluation exercises may enhance the flow of information and maintain the involvement of the various stakeholders in the land use planning process. This documentation can be in standard forms, progress reports, minutes of meetings, etc.

Participatory Project Monitoring and Evaluation (FAO, 2004)

Guidelines for Participatory Project Monitoring and Evaluation (PM&E) are given by FAO (2004). PM&E has the following characteristics:

- M&E as an integral part of the development or change process
- M&E as an empowering process, rather than control by an external body
- a recognition of subjectivity in M&E
- a recognition that different groups of men and women have different perceptions, which are equally valid
- a need for negotiation during the process to reach consensus about conclusions and recommendations
- a tendency to use less formal techniques such as unstructured interviews and participant observation
- an emphasis on sociological enquiry rather than economic measurements
- the evaluator taking on the role of facilitator

The following steps are frequently included in PM&E:

- 1) Identify who will participate in the process. (refer to stakeholder analysis)
- 2) Determine what the participants want from the process and how.
- 3) Define the priorities for monitoring and evaluating.
- 4) Identify the indicators to be measured.
- 5) Agree on how, when and by whom the information is to be collected.
- 6) Collect the information
- 7) Analyze the information.
 - a. Is the implementation keeping to the time schedule?
 - b. Do adjustments have to be made?
 - c. Are the activities proceeding successfully?
 - d. What is proving to be less than successful?
 - e. Is there new information that needs to be taken into account?
 - f. Are the assumptions realistic?
 - g. What actions and strategies need to be taken to address the new conditions?
- 8) Agree on how the findings are to be used.
 - a. How are the results transmitted to the stakeholders?
 - b. What needs to be changed?
- 9) Determine if there is a need for another round of monitoring and evaluation.

However, it is essential to recognize that each situation is unique, with different circumstances, problems and participants. No single set of techniques or methodologies is appropriate in every case. Much depends, therefore, on the skills of the land use planner whose ability to facilitate the process is critical.

Box 11: Tools commonly used in participatory monitoring and evaluation

- **maps:** to show the location and types of changes in the area being monitored.
- **Venn diagrams:** to show changes in relationships between groups, institutions and individuals.
- **flow diagrams:** to show direct and indirect impacts of changes and to relate them to causes.
- **diaries:** to describe changes in the lives of individuals or groups
- **photographs:** to depict changes through a sequence of images
- **matrix scoring:** to compare people's preferences for a set of options or outcomes.
- **network diagrams:** to show changes in the type and degree of contact between people and services.

3 LAND USE PLANNING AT NATIONAL LEVEL

Introduction

As described in Chapter 1, some land use planning activities were carried out in Somaliland during previous regimes, but recent planning activities at national level are limited to the development of sectoral policies and laws. Such efforts are very significant and should be the starting point for further planning.

Considering the present status of land use planning in Somaliland and priorities, the present Guidelines will focus on the subjects of institutions, policies and legislation as far as planning at national level is concerned.

In a national land use policy or a master plan, the long-term development objective is formulated for allocation of the natural resources of the whole country. This objective has a production and an environmental component.

Current Land Use Management and Planning Initiatives

Somaliland has introduced a number of laws and institutions to regulate the management of land. However, government institutions are too weak to deal with all issues related to land and traditional institutions remain involved in land issues. Three systems of law are presently applied: the secular, customary (*Xeer*) and *Shari'a* Law. However, land ownership remains controversial in many urban and rural settlements.

Recently Somaliland introduced a programme of land allocation, registration, and issuance of title deeds, mapping and record keeping.

Various Ministries have produced a number of land and water policies, many of which are still in draft form or have not yet been approved by the legislative authority (parliament and House of Elders). The pastoral and agricultural lands are managed jointly by the Ministry of Agriculture and the Ministry of Pastoral Development and Environment and the two ministries have produced a number of Land Laws. Some important initiatives are listed below. A complete overview of policies and (draft) legislation related to land is given in Table 12.

- Agricultural Master plan (see Annex 3 for details)
- Land tenure legislation and land policies
- Land registration, allocation and Legal title deeds for urban dwellers in all regions, and Agro-pastoralists in northwest Somaliland
- Agricultural Land Ownership Law (Law No. 8/99)
- Urban Land Management Law (Law 17/2001)

The MoA and MoPD&E have the authority for allocating and demarcating land for grazing and for crop production. They issue permits for the construction of berkads and other water reserves in rural areas. For example, one of the regulations is that there should be no more than 30 berkads in one locality. Land enclosures are banned under Law No 8/99. However the state is not yet able to enforce its own legislation. Common rights continue to be undermined, as more and more land in traditional pasturelands is fenced in. Urban planning falls under the Ministry of Public Works and is regulated by the Urban Land Management Law.

Identification of problem and stakeholders; formulation of objective

As mentioned in the Introduction of this Chapter, the first priority for land use planning at national level is the harmonization of existing legislation with respect to land use.

Objectives:

1. Harmonization (and completion) of policies and legislation dealing with land tenure and land use
2. Dissemination of harmonized and completed policies and legislation to stakeholders
3. Strengthen capacity in terms of finance and human resources in relevant institutions

Once land policies and legislation is in place, other land use planning activities at national level follow from there. Such follow-up could include land registration, land use zoning, establishment of grazing reserves, forest reserves and national parks, establishment of livestock corridors, etc.

Institutions which have a stake in the formulation and harmonization of national land use policies and laws are listed in Table 9. An (incomplete) list of institutions recently active in land use planning in Somaliland are given in Table 10.

Establishment of Multidisciplinary Task Forces and Institutions

National land use planning committee

At national level central government will play an important role, in the form of various ministries, departments and institutions, together with important development agencies. Land use planning is always multi-disciplinary and interactive and a National Land use Planning Committee should be independent of existing sectoral government institutions.

Functions of the National Land use Planning Committee include the following:

- Formulate and update land use policy and related legislative and institutional matters
- Coordinate LUP activities at national level
- Advise government on issues related to use and management of land resources
- Facilitate exchange of information to/from district and village level
- Develop and maintain information systems on land resources and land use
- Predict and track land use needs and priorities
- Coordinate formulation, implementation and monitoring of development plans
- Final decision making in cases of conflicting objectives in land use

Presently there is no functional Inter-disciplinary Task Force relating land resources in Somaliland. However, there are a number of Working Groups which could function as a starting point for a full-fledged National Land Use Planning Committee, such as:

- the Inter-Ministerial Coordination Committee (IMCC), which presently coordinates SWALIM activities. This Committee could be re-constituted into a National Land Use Task Force, by including other stakeholders, such as interest groups and associations dealing livestock, agriculture, water and forests.

- the Somaliland National Committee for Drought, with representatives of the Office of the President, NERAD, Ministry of Interior, Ministry of Planning, Ministry of Water & Mineral Resources, Ministry of Pastoral Development & Environment, Ministry of Livestock, and Ministry of Agriculture. This committee formulates responses to drought affected people in Somaliland. It makes drought appeals to international agencies and to the Somaliland public, and manages and distributes collected funds to those affected by drought. The National Committee for Drought is chaired by the Vice President. NERAD is in the process of establishing Regional and District Disaster Management Committees. A few Regional Disaster Management Committees are already in place.

- the Somaliland Natural Resource Management Task Force. This task force was established by SWALIM and partners during a workshop on Land Degradation and Rain Water Harvesting (Hargeisa, 2007). This task force has never become functional, but could be revived.

- the Sectoral Working Group on Water, Sanitation and Hygiene (WASH). WASH coordination meetings are held once a month at the Ministry of Water and Mineral Resources, co-chaired by the Ministry of Water and Mineral Resources and UNICEF Hargeisa. This is a very active working group. All agencies and line ministries working in the water sector share information and coordinate their activities.

Table 9: Stakeholders Land Use Planning at National level

Name of institution	Role
Various Ministries, including: <ul style="list-style-type: none"> • Min of Rehabilitation, Resettlement & Reintegration • Min of Interior (includes Traditional Authorities) • Min. of Agriculture • Min. of Pastoral Dev. & Environment • Min. of Planning & Coordination • Min. of Livestock • Water & Mineral Resources • Min. of Justice • Min of Public Works 	Policies, Strategies Rules, Regulations, Bylaws M&E Implementation Conflict resolution Assessments, research, surveys Budgeting, Auditing, Management Representation Land Conservation, Environ. Protection Empowering social and economic services Planning
Traditional leaders: <i>(Sultans, Garads, Ugases)</i> (see also Ministry of Interior)	Policies, Strategies Customary Law (<i>Xeer</i>) Advocacy Conflict resolution Representation
National Environment Research and Disaster-preparedness (NERAD)	Policies, Strategies, Implementation
National Committee for Drought	Drought emergency response
Parliamentary sub-committee on environment and natural resources	Networking Analyze draft Acts, policies, regulations passed by House of Ministries Submission of acts to the House of Representatives
Municipalities	Survey & Engineering Social, Communal Services
Local NGOs, e.g. Candlelight, ADO, HAVOYOCO, SES	Implementation Expertise Advocacy
Universities: Hargeisa, Amoud, Golis, Burao	Training, Research, Production of Technical Professionals (elites)
Religious leaders (see also Min of Justice)	Advocacy Conflict resolution
Interest Groups, e.g.: Woman's Groups, producer groups	Implementation Advocacy
International NGOs, UN organizations	Training, Consultancy, Survey & Research, Financial Assistance, Advocacy

Table 10: Examples of Institutions working in Land Use Planning

	Name of institution/organization	Type of institution	Remark
X	Ministry of Agriculture	Government	Direct involvement in LUP
X	Ministry of Pastoral Development & Environment	Government	Direct involvement in LUP
	Ministry of Interior (includes Traditional Authorities)	Government	Direct involvement in LUP
X	Ministry of National Planning and Coordination	Government	Indirect involvement in LUP
X	Ministry of Livestock	Government	Indirect involvement in LUP
X	Ministry of Water & Mineral Resources	Government	Direct involvement in LUP
X	Parliamentary sub-committee on Natural Resources & Environment	Government	Direct involvement in LUP
X	NERAD (Environmental research & disaster preparedness agency)	Parastatal /government	Direct involvement in LUP
X	UNDP	UN Agency	Implement or fund environmental projects
X	UNHCR	UN Agency	Implement or fund environmental projects
X	FAO	UN Agency	Farmer field schools, FSAU, SWALIM
	WFP	UN Agency	Fund environmental projects
	IFAD/UNOPS	INGO/UN	Integrated Community Dev. Program: PRA at community level (2002-2008)
	IUCN	INGO	Various projects (SNRMP, 1990s)
X	Vetaid	INGO	Somaliland land tenure law proposal
?	GAA (German Agro-Action)	INGO	Community-based NRM Dur-Dur Planning Tuuyo grazing reserve
X	PENHA (Pastoral & Environmental Network in the Horn of Africa)	INGO	Funded Somaliland land tenure law proposal
X	Oxfam	INGO	Pastoral programmes; emergency
	ECHO (European Community Humanitarian Aid Organization)	INGO	Funding pastoral programmes; emergency programmes, SWC
	CINS	INGO (Italian)	Seed projects (Gabiley 1999 – 2005)
X	Golis University (Hargeisa)	private	Training, Education
X	Amoud University (Borama)	LNGO	Training, Education
X	University of Hargeisa	LNGO	Training, Education
	University of Burao	LNGO	Training, Education
X	BVO (Barwaago Voluntary Org.)	LNGO	Tree nurseries, etc
X	NAGAAD	LNGO umbrella	Various, incl. gender rights
	Candlelight	LNGO	Implementing environmental projects
X	HAVOYOCO (Horn of Africa Voluntary Youth Committee)	LNGO	Implement Drought Preparedness Project
	ADO (Agriculture Development Organisation)	LNGO	Implement agriculture & environmental projects
	APD (Academy of Peace & Development)	LNGO	Implement land conflict research in Somaliland
X	SES (Somaliland Ecological Society)	LNGO	Environment, Agriculture
X represented at SWALIM Land Use Planning Workshops (October 2008 and/or Feb 2009)			
NOTE: This is not a complete list, but serves to give an impression of types of organizations and institutions involved in land use planning.			

Collecting Data and Information

A list of references related land resources Somaliland at national level is given in Table 11. SWALIM already made an inventory of existing (draft) policies and laws (see Table 12). There are more data in the SWALIM database, including data on water resources (SWIMS), documents, aerial photographs, and satellite imagery.

Table 11: Land resources information Somaliland
(with focus on nation-wide data)

Theme	Reports, maps, data	Reference
General	Environmental profile Somalia	IUCN, 2006
	Land Resources Assessment of Somalia	SWALIM, 2007
	Impact of Civil War on Natural Resources: Somaliland	FAO/Candlelight, 2006
Land degradation	Environmental study of degradation in the Sool plateau and Gebi valley	Horn Relief, 2006
	Land degradation assessment of a selected study area in Somaliland	SWALIM, 2007
Climate	Climatology NW Region Agric. Development project Agroclimatology of Somalia Climate of Somalia	SOGREAH, 1982 Hutchinson, 1989 SWALIM, 2007
Landforms	Landform of selected study area in Somaliland	SWALIM, 2007
Soils	Soils of Northern Rangeland Development project	Sir William Halcrow & Partners, 1982
	Soil survey NW Region Agric. Development project	SOGREAH, 1982
	Soil survey of a selected study area in Somaliland	SWALIM, 2007
Water	Groundwater survey Dur Dur Watershed	German Agro Action Somaliland, 2005
	Water resources database (SWIMS)	SWALIM
Vegetation & Rangeland	Vegetation of the Northern Regions of the Somali Republic	Hemming, C.F., 1966
	Land cover of selected study area in Somaliland	SWALIM, 2007
	An ecological assessment of the Coastal plains of North Western Somalia (Somaliland)	IUCN, 2000
	An ecological and resource utilization assessment of Gacaan Libaax, Somaliland	IUCN, 2000
	Range and Livestock. NW Region Agric. Dev. Project.	SOGREAH, 1982
Land use	Land use characterization of a selected study area in Somaliland	SWALIM, 2007
	Impact of charcoal production on both the environment and the socio economy of pastoral communities in Somaliland	MoPD&E, 2004
Socio-economy	<i>Various statistics, maps, analyses of Somaliland</i>	FSAU
	Somaliland in Figures	MoNPC, 2008
	Somali Joint Needs Assessment. Livelihoods and solutions for the displaced	UNDP, WB, 2006
	Regulating the Livestock economy of Somaliland	APD, 2002

Table 12: Laws, policies, strategies and regulations related to land use⁵

Title	Author, date, Authority	Status
General		
*Constitution of the Government of Somaliland	GoS, 2000	Referendum 2001 updated 2005
National Environment Research and Disaster-preparedness (NERAD) Agency Law (<i>in Somali</i>)	GoS, 2006.	Law No. 35/2006 (passed 2008)
The Food Security Act The Food Security Act (Somaliland)	MoA, 1991 MoA, 2008	Law No 10/1991 draft
*Master proposal for operationalizing of revised strategic plan (2008-2012)	NERAD, 2008 Acacia Consult.	proposal
The land legal framework. Somaliland & Puntland State of Somalia	UN-Habitat, 2006	Situation Analysis
Urban		
(Urban) Land Management Law	GoS, 2001	Law No. 17 (draft)
Agriculture (crops)		
*Agricultural land ownership law (<i>Somali</i>)	GoS, 1999.	Law No. 8/99
*Agricultural Land Registration Act	MoA, 2008	Act, draft 1.1
*Agricultural Production and Certification Act	MoA, 2006	
# Master-plan for reconstruction and development of the Somaliland agriculture sector	MoA, 2007, ECSALI Project	Master plan
*National Agriculture Policy	MoA, 2008, ECSALI Project	Policy, 2 nd draft, June 2008
Somaliland land tenure policy	MoPD&E, MoA, 2008	Policy, 2 nd draft
Grazing, Pastoralism, Environment		
National Environmental Action Plan and Strategy to combat desertification	MoPD&E, 1999	draft
*Prevention of Deforestation and Desertification Law (Environment Conservation Act and Proclamation) (<i>in Somali</i>)	GoS, 1998	Law No. 04/1998
*Law on Fauna (Hunting) and Forest Conservation	GoS, 1969	Law No. 15/1969 (reference doc.)
*Environmental Policy of Somaliland (Policy on Environmental Management)	MoPD&E, 1999	Policy
*Somaliland land tenure policy	MoPD&E, MoA, 2008	Policy, 2 nd draft
*Strategic plan for 2008/2010	MoPD&E, 2008	Plan, Final draft
*Rangeland management policy of Somaliland (incl the 14 statements of Somaliland range policy)	MoPD&E, 1999	Policy, draft
#National Livestock Policy 2007-2016	MoL, 2007	Policy

⁵ This list does not include (unwritten) customary laws (*Xeer*)

Table 12 (cont.)		
Water		
?Water Development Agency	MoW&MR, 1971	Law No. 28/1971
*Somaliland national water strategy	MoW&MR, 2004	Strategy, approved by Council of Min.
*Somaliland national water policy	MoW&MR, 2004	Policy, approved
*Water Act (<i>Somali</i>)	MoW&MR, 2008?	Act No. ?? (At Parliament in 2009)
*Regulations in the Water sector	MoW&MR, 2006, Hydroconseil	Regulations (At Parliament in 2009)
Ministerial programme on marine reserves and conservation	MoW&MR, 2004?	Programme (<i>in Somali</i>)
Fisheries regulations		
See also http://www.somalilandlaw.com		
* digital copies available from SWALIM # hard-copy or scanned copy only		

Formulation of draft policies and laws

After inventorying all existing policies and laws related to land use, various proposals for comprehensive and harmonized land laws covering all land uses should be drafted. Such proposals could be based on existing legislation in other countries (see examples from Tanzania in Chapter 2 - Box 6, and from Botswana in Annex 2), and may need assistance from outside specialists (land legal specialists).

Proposed land laws should relate to the actual land resources of Somaliland, and prevailing land use types and socio-economic conditions. Considerable information already exists in this regard (see Table 11), but additional data may have to be collected.

Negotiation, discussion and approval of land use policies and legislation

Once draft policies and legislation are available and distributed there will be a long process of education, discussion and negotiation according to constitutional and traditional processes prevailing in the country.

Opinions should be sought from many representative institutions, organizations and authorities. Forms of dialogue will include workshops, public debates, media coverage, followed by debates in the Houses of Parliament.

Implementation, Promotion and Enforcement of land use policies and legislation

The implementation of approved land use policies and legislation requires both incentives and enforcement. Various types of incentives are listed in Chapter 2 (Table 7). For most of the land users the benefits of implementation of rational land use policies and regulations will be indirect, through improved food security, higher productivity and sustainable land use.

Obviously, laws and regulations on land use will come with clauses on arbitration and prosecution of offenders. Somaliland's formal judiciary system, as well as its customary law (*Xeer*) and Islamic law will have a role to play.

Monitoring and Evaluation

M&E should be performed throughout the implementation process. Firstly, the effectiveness and compatibility of all sectoral land policies and legislation should be monitored and evaluated. Amendments should be proposed and effected where necessary. Secondly, the whole process of government interference with land use practices through policy formulation and legislation should also be evaluated. The question should be asked if the overall objectives of the stakeholders have been wholly or partly reached, or have caused more confusion, conflict and inequality.

4 LAND USE PLANNING AT DISTRICT LEVEL

There are no good examples of district level land use planning in Somaliland, although some land resource management studies have been carried out which cover large parts of the country, e.g. the "*Environmental study of degradation in the Sool plateau and Gebi valley: Sanaag region of northern Somalia*" (Horn Relief, 2006). This Chapter is partly based on the guidelines developed for Participatory Land Use Development in the Municipalities of Bosnia and Herzegovina (FAO, 2004). An overview of the SWALIM land and water resources inventory is also included, as well as method and results of the SWALIM land suitability evaluation in Somaliland.

The land use planner

The land use planning process is facilitated by the land use planner, which could be an individual, group, institution or coalition of groups. The land use planner mobilizes the stakeholders and creates at least the minimum critical mass of interest, expertise and resources required to get the land use planning process to a self sustaining level of operation (see also Chapter 2).

Objectives

A district land use plan will have an objective, which aims at development in the district or other relevant area of similar size (e.g. a watershed). Its objective should conform to and serve the objectives in the overall land use policy of the country. At the same time, the land use planning exercise should deal with outstanding land use issues and conflicts.

Selection of planning area

Land use planning at meso-level could cover one or more districts or a natural area such as a water catchment. Selection of a planning area could be based factors including the following:

- urgency of issues (e.g. conflicts, land degradation)
- initiatives and interest from local authorities (District Councils) and local NGOs
- interest from donors
- human resources within the district administration
- effectiveness of administration and security
- available data

Most important are the presence of a genuine desire within the planning area for sustainable natural resource management and an equitable distribution of resources.

Stakeholders

The district administration has a very prominent position in the list of stakeholders of the land use planning process. All further activities of the planner must be undertaken in partnership with the responsible person or people in the district administration.

In addition to the district administration, the planner must attempt to identify other stakeholders who must be involved in the process. Not all stakeholders are readily apparent. Finding them is an ongoing and open task, and there is always a risk that some will be missed (see Chapters 2 and 5 for more on stakeholder analysis).

Task Forces

The land use planner or facilitator makes contact with external partners, or service providers. These are people or institutions that can provide the technical expertise that the stakeholders will need or find useful as they work their way through the process. Examples of service providers include research and academic institutions, private consultancy firms, government agencies, international organizations and NGOs. Such service providers have to be identified, contacted and linked to the stakeholders.

A multi-disciplinary District Land Use Planning Group (DLUPG) will be established. Various Government institutions will be represented, as well as senior clan leaders (*Sultans, Ugases and Garads*), elected leaders (e.g. District Councilors) and local development agencies. Depending on the tasks at hand, representatives of the private sector could also be co-opted. Tasks of the DLUPG include:

- Formulate objectives of district land use planning activities
- Implement district level land use planning activities
- Provide technical support to Local Resource Management Groups (see Ch. 5)
- Coordinate village-level land use planning and assist with resolving conflicts
- Inform National Land use Planning Committee of district level priorities

In Somaliland, all districts have elected councilors, first elected by popular vote in 2003 for a 5-year term. Councilors elect a district mayor from council members. Gabiley and Borama Districts established District Development Committees (DDC) in 1999 with the support of UNOPS. These Committees are made up of district councilors, prominent community elders, and representatives of district-based ministries, such as the Ministries of Agriculture, Health, Education and Pastoral Development & Environment. The DDC is mandated to develop a district development plan⁶, but these have not yet materialized.

Collecting Data and Information

The nature of data needed for land use planning is discussed in Chapter 2. In this Chapter available data which could be of use for land use planning at district level is explained in more detail. Most of these data only cover a limited number of districts and additional data will be needed, depending on the objectives of the land use planning exercise and the area covered.

- **SWALIM land resources data Somaliland**

The most complete and recent data on land resources at meso-level have been collected by SWALIM of an area between the Ethiopian border and the Red Sea, covering the districts of Dila, Gebiley, Faraweyne and Allaybaday, and parts of the districts of Hargeisa, Borama, Baki and Lughaya⁷.

Natural resource surveys form the basis for physical land evaluation and include inventories of agro-climate, landform, soils, landcover and present land use. Such surveys were carried out by SWALIM in the study area (SWALIM, 2007).

⁶ The Ministry of Interior is in the process of establishing Regional Development Committees in all regions, which will develop Regional Development Plans.

⁷ The districts of Dila, Faraweyne and Allaybaday were recently formed

The basic units of evaluation are Resource Base Units (RBU), which are defined as land areas, generally smaller than a region but considerably larger than a farm, with a definable combination of characteristics of climate, relief, altitude, soil and natural vegetation. The RBUs are generated by combining different spatial baseline data layers, including Length of Growing Period (LGP), landscape, vegetation, soil groups and altitude (Figure 6).

Forty-five RBUs have been defined for study area (see Figure 7) and described in terms of more than 20 distinct land characteristics (SWALIM, 2007, report L-06).

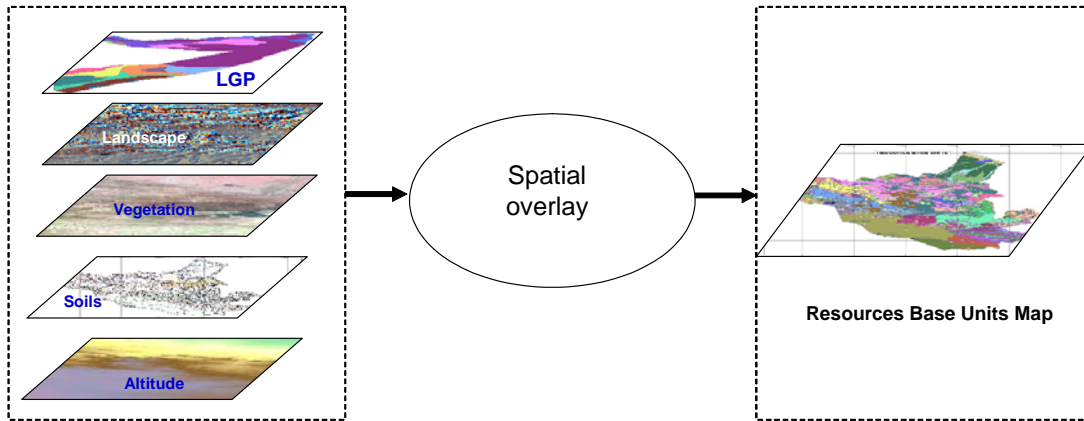


Figure 6: Identification of the RBU's

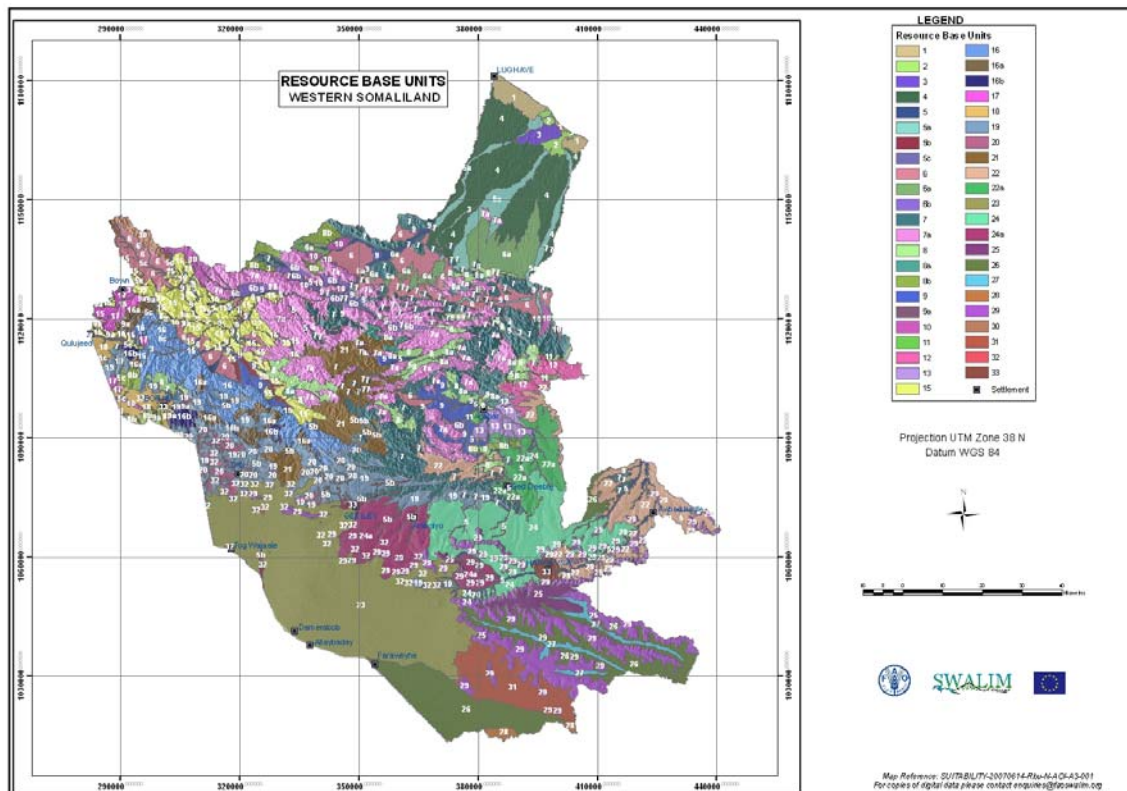


Figure 7: Resource Base Units of SWALIM study area in Somaliland

- **SWALIM water resources data (SWIMS)**

The Somalia Water Sources Information Management System (SWIMS) stores and manages a variety of data for the five principle types of water sources in Somalia: boreholes, dams, berkads, dug-wells and springs. It allows multiple agencies to collect and manage water sources information and contribute to a national inventory of water sources in Somalia while maintaining data integrity. SWIMS incorporates three modules into one application. These are: location, records and interventions modules. The location module consists of the spatial data (name and geographic coordinates) used to map the water sources. The records module is used to track changes in the functional status, users, management, physical parameters and water quality of a particular source over time. The interventions module provides a means of recording past, present and future project activities on a particular water source. The module allows the user to store information on the planned activities for a source, and update each intervention record throughout the project cycle.

Box 12: SWIMS Water Resources Data

As of 2008, SWALIM has identified over 1000 strategic water points (boreholes, dug wells, springs and dams) in Somalia. The parameters monitored include the physical parameters of the water sources (depth, yield, static water level, etc), users of the source, basic water quality (EC, pH, taste, smell, etc), ownership, supply and distribution among others. All these data have been entered into SWIMS and posted to SWALIM's website, together with the various products generated from it.

Website: http://www.faoswalim.org/theme_groups/water/page.php?id=14

The data can also be requested for from: enquiries@faoswalim.org

- **Socio-economic data**

Socio-economic data are collected systematically by the FAO Food Security and Analysis Unit (FSAU). Some relevant information is summarized in Table 13. Some relevant FSAU baseline profiles are given in Annex 1.

The Ministry of National Planning & Coordination (MoNPC) also collects and publicizes socio-economic data on a regular basis: Somaliland in Figures (MoNPC, 2008).

Population data have been compiled by both WHO (2001) and UNDP (2004). These data are not based on a census, but derived from secondary data and projections. Population by district summarized in Table 15.

Table 13: Overview of selected data available from FSAU

Livelihood Zone		Baseline Profile	Seasonal Calendar	Economic Data (food, income, expenditure, wealth)
Golis-Guban Pastoral	goats, camels	draft 2002? See Annex 1	✓	
Hawd & Sool Pastoral	camels, goats, sheep, cattle	draft Aug 2002 See Annex 1	✓	✓ (1999)
Somaliland Agro-Pastoral	sorghum, cattle	draft Aug 2002	✓	✓ (2001)
Nugal Valley Lowland Pastoral	goats, camels	draft 2002?	✓	✓ (1998)
Togdheer			✓	✓ (2002)

Table 14: Selected list of references on land resources (district level)

Theme	Reports, maps, data	Reference
Land degradation	Environmental study of degradation in the Sool plateau and Gebi valley	Horn Relief, 2006
	Land degradation assessment of a selected study area in Somaliland	SWALIM, 2007
Climate	Climatology NW Region Agric. Development project	SOGREAH. 1982
Landforms	Landform of selected study area in Somaliland	SWALIM, 2007
Soils	Soils of Northern Rangeland Development project	Sir William Halcrow & Partners. 1982
	Soil survey NW Region Agric. Development project	SOGREAH. 1982
	Soil survey of a selected study area in Somaliland	SWALIM, 2007
Water	Groundwater survey Dur Dur Watershed	German Agro Action Somaliland, 2005
	Water resources database (SWIMS)	SWALIM
Vegetation	Vegetation of the Northern Regions of the Somali Republic	Hemming, C.F., 1966
	Land cover of selected study area in Somaliland	SWALIM, 2007
	An ecological assessment of the Coastal plains of North Western Somalia (Somaliland)	IUCN, 2000
	An ecological and resource utilization assessment of Gacaan Libaax, Somaliland	IUCN, 2000
Land use	Land use characterization of a selected study area in Somaliland	SWALIM, 2007
	Impact of charcoal production on both the environment and the socio economy of pastoral communities in Somaliland	MoPD&E, 2004
Socio-economy	<i>Various statistics, maps, analyses of Somaliland</i>	FSAU
	Somaliland in Figures	MoNPC, 2008
	Regulating the Livestock economy of Somaliland	APD, 2002

Table 15: Population estimates by district

Region	District	Total Population	Non-urban Population
Awdal	Borama	215616	132695
	Baki	25500	16923
	Lughaye	36104	22094
	Zeylac	28235	22801
Woqooyi Galbeed	Hargeysa	560028	137513
	Berbera	60753	18683
	Gebiley	79564	53717
Togdheer	Burco	288211	191748
	Buuhoodle	38428	28821
	Owdweyne	42031	30924
	Sheikh	33625	27400
Sool	Laas Caanood	75436	50606
	Caynabo	30702	24026
	Taleex	25354	20983
	Xudun	18785	15528
Sanaag	Ceerigaabo	114846	83748
	Ceel Afweyn	65797	53638
	Laasqoray/Badhan	89724	76902
TOTAL		1828739	1008750

Source: UNDP, 2005

Information on Somaliland laws and recent policies related to land resources

Land use planning at any level should conform to the national laws and adopted government policies. An overview of recent policies, strategies and laws is given in Chapter 3 (Table 12).

Preliminary Identification and Screening of Options

Ideas for improved land use options will emerge through the planning process as stakeholders suggest changes and information becomes progressively available. The nature and scope of these options very much depend on the planning objectives. Review of these options by the task force and land use planner should be a continuous process, which is consistent with the iterative nature of land use planning.

Box 13: Brainstorming land use options

- Follow up on national policies and plan (e.g. Master Plan for Agriculture Sector)
- Identify promising crops/varieties
- Seek solutions for challenges faced by pastoralists (e.g. enclosures; poor access to grazing resources)
- Identify opportunities with respect to forestry and agro-forestry
- Seek for equitable distribution and use of water resources
- Rehabilitation of degraded, but potentially productive land
- Control of invasive plants (e.g. *Prosopis* and *Parthenium spp*)
- Comprehensive watershed management
- Conservation of biodiversity (e.g. protected forest areas)

The preliminary identification and screening of options could be a simple process, particularly if the objective of the land use plan addresses a single problem in a limited area. However, usually there are various problems to deal with and a large number of options to be considered. Ideas could come from the appointed task force, collaborating institutions, stakeholders, technicians and also potential donors. Brainstorming may be needed at first (see Box 14), followed by preliminary screening and ranking.

Ideas may also be gained from literature and internet search. Some useful publications in this regard are listed in Table 17.

The review may take the form of a workshop, in which initial objectives are reviewed in the light of the proposed options and the new information that has been collected. Its first task is to formulate possible improved land use options (e.g. modified or new production systems). Secondly these options are screened for consistency with all the stakeholder objectives, for acceptability within the framework of government policy and legislation, and for broad feasibility according to the resources needed for their implementation. One option to include in all planning exercises is "to do nothing": the result of non-activity can then serve as a benchmark against which the result of various options can be measured.

If there are constraints identified, related to the existing general conditions (policies, regulations, etc.), potential solutions or alternatives have to be sought. Changes to some of the general conditions, if possible, might be considered. Those land use options which pass this screening process are subjected to land evaluation.

Evaluating Resources for the Identified Options

The basic principles of land evaluation have been explained in Chapter 2. In the following Sections some of the land evaluation results from SWALIM are summarized.

- SWALIM land suitability evaluation Somaliland

SWALIM carried out a land suitability evaluation for a study area between the Ethiopian border and the Red Sea, covering the districts of Dila, Gebiley, Farawayne and Allaybaday, and parts of the districts of Hargeisa, Borama, Baki and Lughaya

For the purpose of physical land suitability evaluation SWALIM developed a tool called Somalia Automated Land Evaluation System (SOMALES). SOMALES is the application of the FAO Framework for Land Evaluation with the use of computer

software called the Automated Land Evaluation System (ALES). Details of SOMALES, and how it was applied for the study area, are given in FAO-SWALIM Technical report no. L-06 (SWALIM, 2007a).

As explained earlier, the basic units of evaluation are Resource Base Units (RBU). Forty-five RBUs have been defined for study area (see Figure 7).

Land suitability is determined for specific land use, which can be defined at two levels of detail. A major kind of land use is a major subdivision of rural land use such as rainfed agriculture, irrigated agriculture, forestry, etc. A land utilization type (LUT) is a kind of land use defined in more detail, according to a set of technical specifications in a given socio-economic setting. Major kinds of land use and LUTs which were included in the land suitability assessment of the study area (FAO-SWALIM Technical Report L-06) are given in Table 16. This Table does not give a complete list of LUTs or land use options, but only serves as an example.

Table 16: Land Use Types (Examples)

Major Kind of Land Use		Land Use Type (LUT)	
R	Rainfed Agriculture (crops)	Rs1	Rainfed sorghum; short GP (90-100 days); medium input
		Rs2	Rainfed "Traditional sorghum"; total GP 180 days (including "dormant" period of 50 days; low input
		Rc	Rainfed cowpea; short GP (80 days); low-medium input
		Rm1	Rainfed maize; short GP (80-90 days); medium input
P	Pastoralism (extensive grazing)	Pc	Extensive grazing of cattle; low input
		Pd	Extensive grazing of camels; low input
		Pg	Extensive grazing of goats; low input
		Ps	Extensive grazing of sheep; low input
F	Forestry (tree plantation)	Fai	<i>Azadirachta indica</i> (neem)
		Fan	<i>Acacia nilotica</i> (maraa)
		Fat	<i>Acacia tortilis</i> (qurac)
		Fba	<i>Balanites aegyptiaca</i> (quud)
		Fce	<i>Casuariana equisetifolia</i> (shawri)
		Fcl	<i>Conocarpus lancifolius</i> (damas, ghalab)
		Fdg	<i>Dobera glabra</i> (garas)
		Ffa	<i>Faidherbia albida</i> (garabi)
		Fti	<i>Tamarindus inidica</i> (raqai)

Table 17: Literature related to land use options in Somaliland – district/village level

Land use Type	Resources	Reference
General	Rebuilding Somaliland. Issues and possibilities	WSP Int., 2005
	Managing dryland resources. A manual for eastern and southern Africa.	IIRR, 2002
	Land-based conflict project & Dialogue for Peace Programme	ADP, 2006, 2007, 2008
Natural resources management; soil & water conservation	Technical assistance for soil erosion and land reclamation in Borama and Baki Districts	Schaap, O., 1996
	Soil & Water Conservation. North-west Region Agricultural Development Project.	SOGREAH, 1982
	Pilot watershed management for soil & water conservation and small garden development. Geed Abeerah	TAMS, 1986
	WOCAT Soil and Water Conservation Techniques	http://www.WOCAT.net
Pastoral	Grazing capacity estimates for Tuuyo Seasonal Reserve.	Heemstra, H.H., 1981b
	Securing pastoralism in East and West Africa: protecting and promoting livestock mobility Somaliland/Somali Region desk review.	Birch, Izzy, 2008
	Regulating the livestock economy of Somaliland.	ADP, (2007 ??)
	Agricultural and Water Survey. Livestock Development Survey.	FAO, UNDP, 1967
	Access to water, pastoral resource management and pastoralists' livelihoods. Lessons learned from water development in selected areas of Eastern Africa (Kenya, Ethiopia, Somalia).	Gomes, N., 2006
Rainfed Agric.	Rainfed Agriculture. North-west Region Agricultural Development Project.	SOGREAH, 1982b
	Land suitability assessment of a selected study area in Somaliland	SWALIM, 2007
Irrigated Agriculture	Irrigated Agriculture. North-west Region Agricultural Development Project.	SOGREAH, 1983
	Pilot watershed management for soil & water conservation and small garden development. Geed Abeerah	TAMS, 1986
Forestry	Forestry and Woodland management in Somaliland	Herzog, M., undated
	Land suitability assessment of a selected study area in Somaliland	SWALIM, 2007
	Sustainable Management and Restoration of Dalloo and Surod Juniper Forest Ranges by Local Communities. Erigavo, Somaliland	GAA/Laubmeier, 2007
Agro-forestry	Dryland Agroforestry Strategy for Ethiopia. ICRAF Drylands Agroforestry Workshop, Nairobi, Sept 2004.	Kindeya Gebrehiwot, 2004.
Nature reserves	An Outline of the Status of the Somali Fauna and of its Conservation and Management Problems.	Simonetta, 1983
Tourism	Forests, Fauna, National Parks and Relative Prospects for Tourism in Somalia.	Chausser, F. et al, 1969
Urban	Somali Joint Needs Assessment. Livelihoods and solutions for the displaced.	UNDP, WB, 2006
	Berbera, first steps towards strategic planning	UN-Habitat, 2008
	Introducing (optional) planning in post-conflict contexts. The Case of the Somali cities.	UN-Habitat (undated).

SOMALES has four Suitability Classes:

- S1 = Highly Suitable
- S2 = Moderately Suitable
- S3 = Marginally Suitable
- N = Not Suitable

A number of Suitability Sub-Classes is distinguished, reflecting kinds of limitation, e.g. subclass S3m means "Marginally suitable due to low moisture availability".

Parts of the results of the SWALIM land evaluation exercise in Somaliland is shown in Table 18. This matrix gives the suitability of a number of Resource Base Units for four land use types (crops). The result of land evaluation for sorghum is also shown in Figure 8.

Table 18: Land Suitability for Rainfed Agriculture (Example)

RBU	Area		Rc cowpea short GP	Rm1 maize short GP	Rs1 sorghum short GP	Rs2 sorghum long GP "Elmi Jama"
	ha	%				
17	7198	0.6	N	N	N	N
18	9786	0.8	S2em	S2em	S2em	S2em
19	61977	5.0	S3mn	S3emn	S3emn	S3emn
20	11112	0.9	S2efmn	S2efmw	S2efmw	S2efmw
21	36235	2.8	S3m	S3mn	S3m	S3m
22	46251	3.6	S3mn	N	S3mn	S3mn
22a	23089	1.8	S3mn	N	S3mn	S3mn
23	163997	12.7	S2em	S2em	S2em	S2em
24	61666	4.8	S3m	N	S3m	S3m
24a	34463	2.7	S3m	S3m	S3m	S3m
25	12576	1.0	N	N	N	N
26	73305	5.7	S3m	N	S3m	S3m
27	9641	0.7	S3m	N	S3m	S3m
28	2547	0.2	N	N	S3mnw	S3mnw
29	66109	5.1	N	N	N	N
30	4322	0.3	N	N	N	N
31	28488	2.2	S3m	N	S3m	S3m

Suitability classes: S2=moderately suitable; S3=marginally suitable; N=Not Suitable
 Sub-classes (limitations): e=erosion hazard; f=flooding hazard; m=(low) moisture availability; n=(low) nutrient availability; w=(poor) drainage
 from SWALIM, 2007, Report L-06

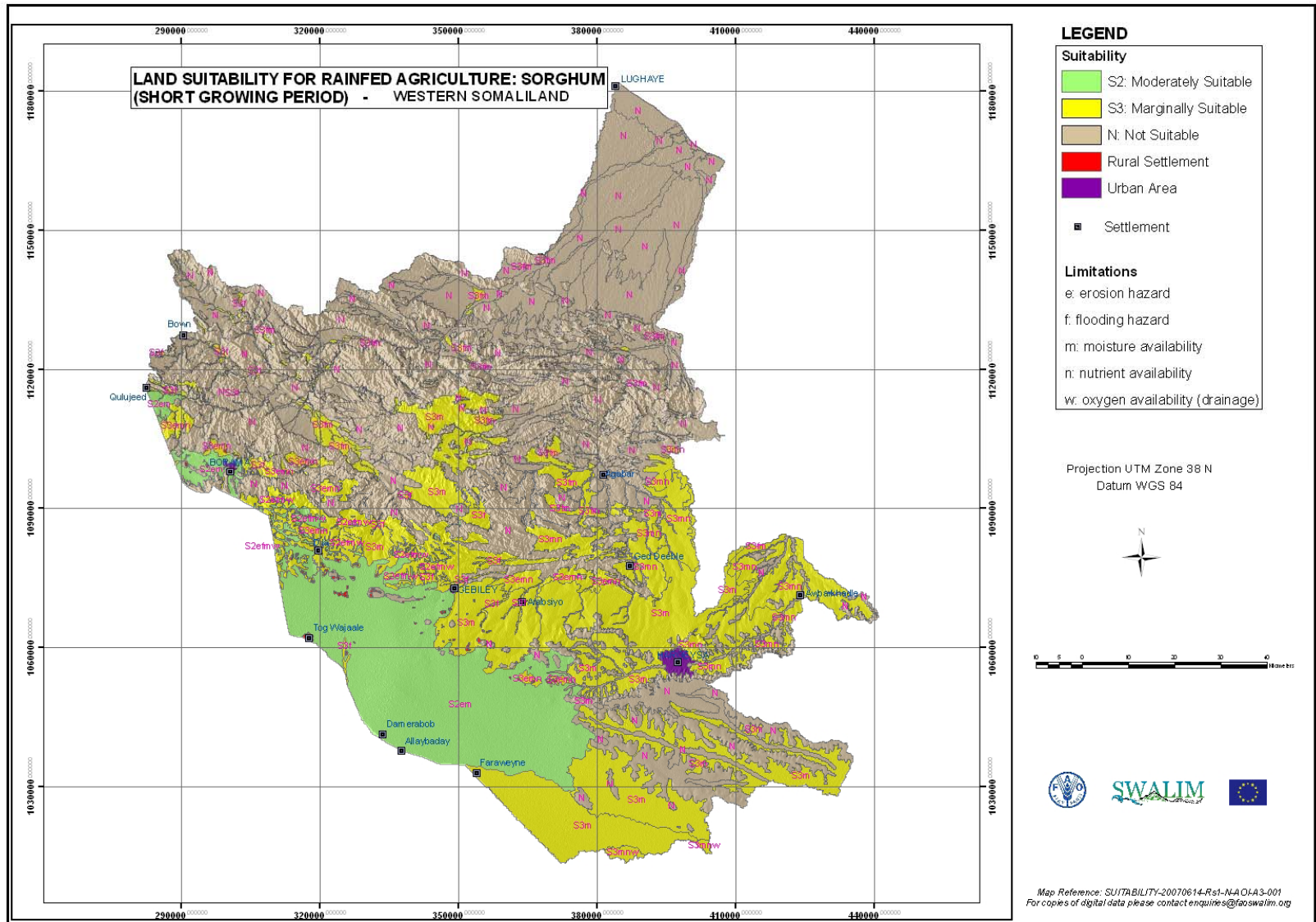


Figure 8: Land suitability for sorghum

5 LAND USE PLANNING AT LOCAL LEVEL

Examples of planning at village level are drawn from the IUCN Somaliland *Natural Resource Management Project* (Barrow, 1998 & 1999; IUCN, 2000) and from PRA Case studies by IFAD (Integrated Community Development Programme) and HAVOYOCO/Oxfam (Somaliland Pastoral Development Programme). A check-list of some activities and tools in village level land use planning is given in Table 19).

Box 14: Literature on village-level land use planning

- Participatory village land use and NRM planning in Somaliland. (Barrow, 1998)
- The use of participatory mapping tools. Training Workshop. Somali Natural Resource Management Project. (Barrow, 1999)
- Community based participatory natural resource and land management planning. Lessons and guidelines developed from practice in Somaliland from the Somaliland NRM programme. (IUCN, 2000).
- Community Based NRM in the Dur-Dur Watershed, Awdal Region, Somaliland (German Agro Action Somaliland, 2006)
- Community-based Participatory Watershed Development. Part 1: Guidelines. Part 2: Annex. (Lakew Desta et al, 2005) (Ethiopia)
- PRA Case Studies (IFAD, 2002-2006)
- PRA Case Studies (HAVOYOCO/OxfamGB, 2007)

STEP 1: Identification of problem and stakeholders; formulation of objective

In a community land use plan, people will formulate objectives relevant to their community. The objective should consider short-term and long-term aspects and be focused on sustainable development of the community and its land resources. Such plans will fit into and feed the district or watershed plans thereby creating mutual support. Most communities will need outside assistance with the formulation of a community land use plan or Community Action Plan (CAP). In Somaliland such assistance has been given locally by development agencies such as IUCN, OxfamGB and GAA (see Box 14).

An example of village-level stakeholders and problems identified by them is given in Table 20. Apart from identifying the stakeholders, it is also important to establish how they relate to each other and who has the power to influence the access and use of land resources. An example of a "Campfire" analysis of stakeholder and power relations is given in Chapter 6. The stakeholder groups closest to the "fire" (centre) are "warm" and close to the cooking pot, and have inside knowledge and power; groups far away from the centre are left in the cold and cannot make decisions.

To involve all stakeholders in the process, the land use planner or facilitator should try to demonstrate that there is something to gain for everybody.

Table 19: Village land use planning activities check list and tools

phase	Activities	By whom	Tools
1	<ul style="list-style-type: none"> • Introduction: why village land use plans; village planning as a process, not an end in itself • Initial village resource mapping • Men's and Woman's resource mapping • Critical resources within village (wet/dry/famine) • Transects walks to create forum for discussion • Initial identification of problems and solutions • Agree on further action 	Villagers and Facilitator (Community Mobilization Officer)	<ul style="list-style-type: none"> ▪ Focused village group meetings ▪ Maps ▪ List and rank critical resources (Matrix) ▪ Brainstorming on problems and issues; agree on some short-term action
2	Villagers take time to digest information from phase 1. Decide what further (external) information is needed and who is doing what		
3	<ul style="list-style-type: none"> • Follow-up and revisit by CMO • Larger resource mapping (outside village): access to resources, uses • External stakeholder analysis • Resource ranking • Agree on further action 	Villagers & CMO	<ul style="list-style-type: none"> • Mapping of wider area (outside village) • Matrix rank, listings • Group discussions, brainstorm
4	Villagers digest information from phase 3. Decide what further (external) information or assistance is needed and who is doing what		
5	<ul style="list-style-type: none"> • More detailed analysis of stakeholders. Who makes decisions about resource access and use. Institutional arrangements for NRM • Seasonal and labour mapping • Discuss village problems and issues 	Villagers & CMO	<ul style="list-style-type: none"> • Stakeholder analysis • Focused group discussion • Listings, rankings • Seasonal and labour analysis
6	Villagers take time to digest information from phase 3. Decide what further (external) information or assistance is needed and who is doing what		
7	<ul style="list-style-type: none"> • Resource Map fine tuning; overlay social responsibilities, stakeholder and institutional issues • Structural analysis of problems, issues and opportunities (e.g. SWOT) • Discuss and decide on Monitoring and Evaluation (M&E) system • Action plan: who will do what and when • Decide on external input needed 	Villagers & CMO	<ul style="list-style-type: none"> • Revisit maps, matrix rankings • SWOT analysis on issues • Discussions on action plan
8	Villagers discuss land use plan in their own time		
9	Endorsement of land use plan	Villagers & CMO	
10	<ul style="list-style-type: none"> • Initiate implementation of plan • Agree on work plan: who will do what, when and resources needed • Links to donors for some of implementation 	Villagers & CMO	
11	Participatory monitoring of progress Fine-tune, revise plan	Villagers & CMO	

Source: Barrow, 1998

Table 20: Village-level stakeholders and problems

Village Stakeholder analysis	Identification of problems by villagers
Elder men	✓ gullies in the forest areas
Woman, Woman groups	✓ unfenced <i>berkads</i>
Youth (male + female)	✓ erosion around <i>bailey</i> water dug outs
Ex-Government staff	✓ water scarcity
Religious leaders	✓ lack of functional health facilities
Farmers (crops); Pastoralists	✓ lack of farm inputs
Poor people; Rich people	✓ lack of trees
Milk group	✓ deforestation in communal forest area
Teachers (Koran, Education)	✓ lack of business opportunities
Tea shop owners	✓ erosion on cropping land and range lands
<i>example from Qalao village (after Barrow, 1998)</i>	

STEP 2: Establishment of Multidisciplinary Task Forces and Institutions

LOCAL RESOURCE MANAGEMENT GROUPS

At local level Local Resource Management Groups (LRMG) should be in place. In Somaliland, most communities have a Village Committee (VC) and/or a Village Development Committee (VDC). In some villages, there may be a more traditional group of “Elders” in addition to the VDC. These existing village institutions should be the starting point of any land use planning activity. Additional and more specialized LRMGs could be formed if necessary. These groups could be dealing with all land resources in an area, or specialize in one of the main resources, e.g. Range Management Groups, Sub-catchment Water & Irrigation Management Groups, Forest Management Groups, etc. Some existing local institutions may already play an important role in land resource management and should be involved. Examples of such institutions are voluntary associations, mutual aid and work groups, religious groups, woman’s group, etc. Government cannot impose LRMGs on the community, but can facilitate them and make sure that all stakeholders have a voice.

Box 15: Suggested composition of a LRMG

- Religious Leader (Sheikh)
- Member(s) of Pastoral Association; Pastoral Leader
- Member(s) of Farmers Association; Influential crop producer
- Teacher(s)
- Representatives of active local civil society organizations
- Member of VDC and/or VC
- Technical Officer from the District Office (Facilitator)

Functions and activities of the LRMG include:

- Address and resolve existing or potential resource use conflict within community
- Address resource degradation or unsustainable use pattern
- Deal with external stakeholders, such as central government, entrepreneurs, NGOs
- Manage Community Action Plan and other local LUP activities
- Monitor and evaluate any Land Use Plans under implementation
- Develop and maintain local level database and records (resource centre)
- Share information with internal and external stakeholders

STEP 3: Collecting Data and Information

Examples of participatory data gathering at village level are taken from PRA Case studies (IFAD, 2002-2006; HAVOYOCO/OxfamGB, 2007).

Community Sketch Map

A community sketch map shows the community the boundaries and characteristics of its territory. It indicates where resources, activities and opportunities are located.

The community members gather in an area of bare soil and draw a map with their fingers and sticks. Many discussions and arguments will take place, but with the help of the facilitator a consensus will always be reached regarding a specific feature or resource location. The map is then copied on a sheet of paper (see Fig 9). If the necessary expertise is available, a more professional map can also be produced with similar information.

Socio-economic data

Various socio-economic data should be collected by the community and the facilitator. Such data include population, number of families, number of refugees, number of returnees, minority groups, community workers and services, average farm size, number of farms, crops, livestock, etc.

Institutional Analysis

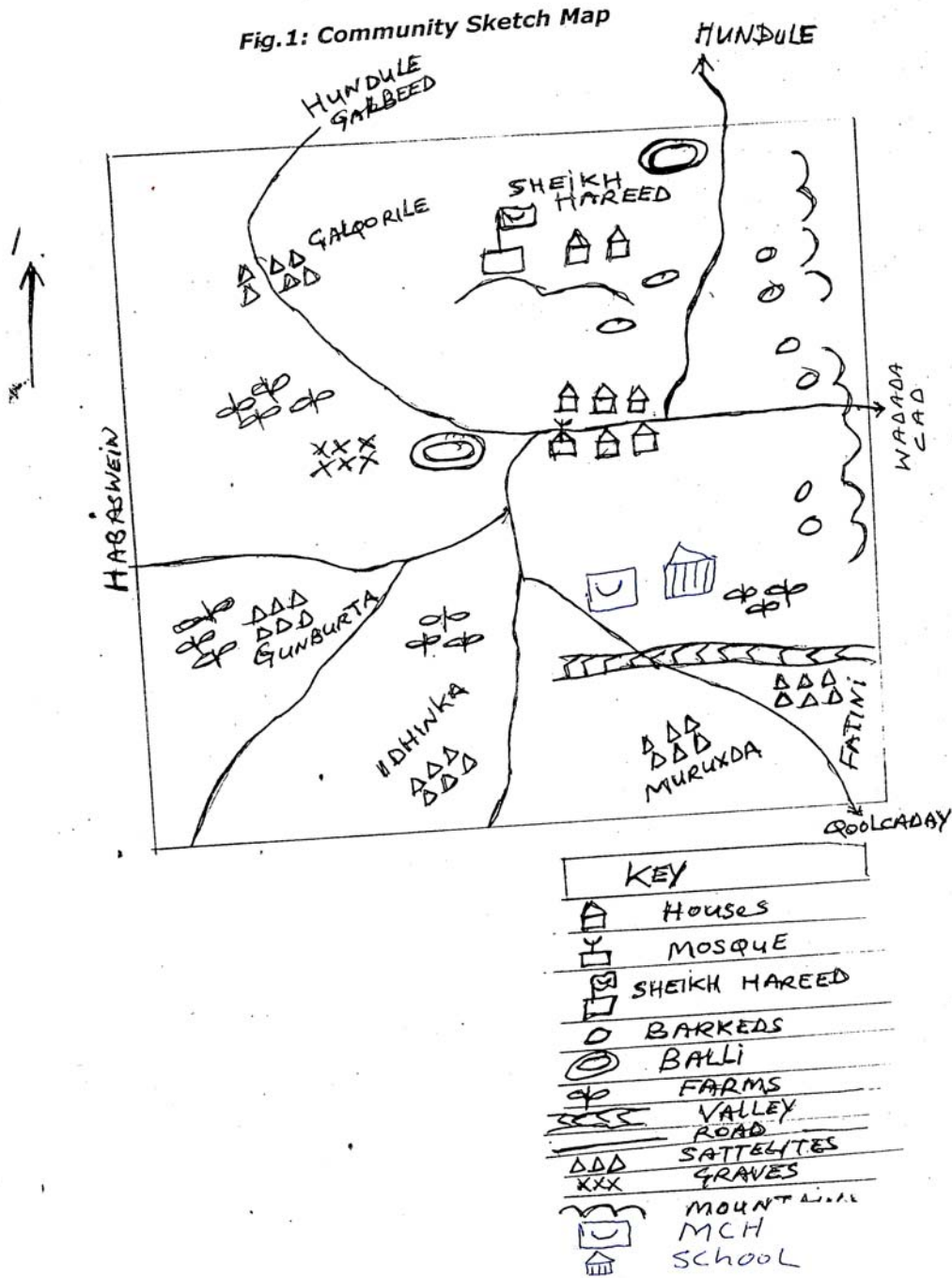
The purpose of an institutional analysis is to help the community to learn about the activities of the various groups and organizations within the community and how to work with them. It also helps to understand how the community views these groups.

The community members list the various institutions working with them and their activities. They then make comments on the activities of these institutions and rank them according to their importance and effectiveness. An example of institution ranking is shown in Table 21. The ranking of institutions by the community also gives feedback to the agencies about the way the community sees them.

Table 21: Participatory Institutional analysis and ranking

Institution	Activities	Remarks	Rank
International Development Bank	Provided 100 tractor hours Food demonstrations Community health worker training Trained two animal health assistants	Provision of tractor hours were late	4
International NGO	Rehabilitated 22 berkads Desilted one balley Restocked 50 shoats Provided cash credit Constructed 21 latrines Provided hand tools Provided training	Did good job	2
Village Committee	Maintain peace and stability Mobilize community Coordinate with INGO and UN agencies Coordinate with government authorities	The closest institution to the community	1
Local NGO (1)	Provided veterinary drugs Trained two animal health assistants Provided medical material	Good monitors	3
Local NGO (2)	Provided training in bee keeping Provided bee keeping materials	45 beneficiaries	6
Outside sponsor	Built the school	Did good job	5

Figure 9: Community sketch Map



example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)

Source of income and income expenditure

The community discusses their main sources of income, such as livestock and its by-products, agriculture, trade and remittances. The results can be shown in a pie chart (see example, Figure 10). Similarly, income expenditure can be discussed and presented (Figure 11).

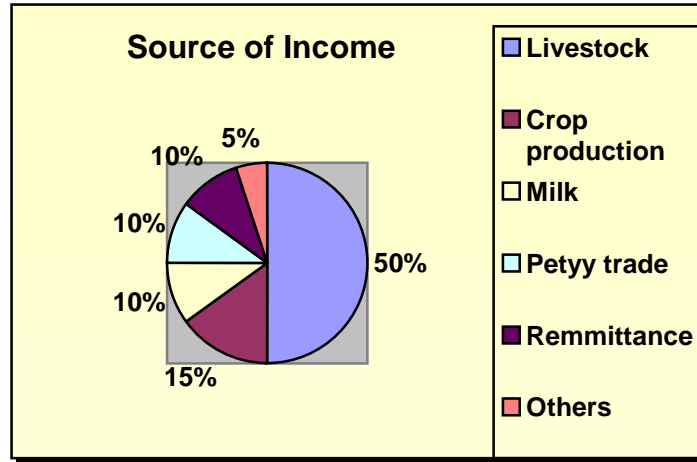


Figure 10: Sources of Income

example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)

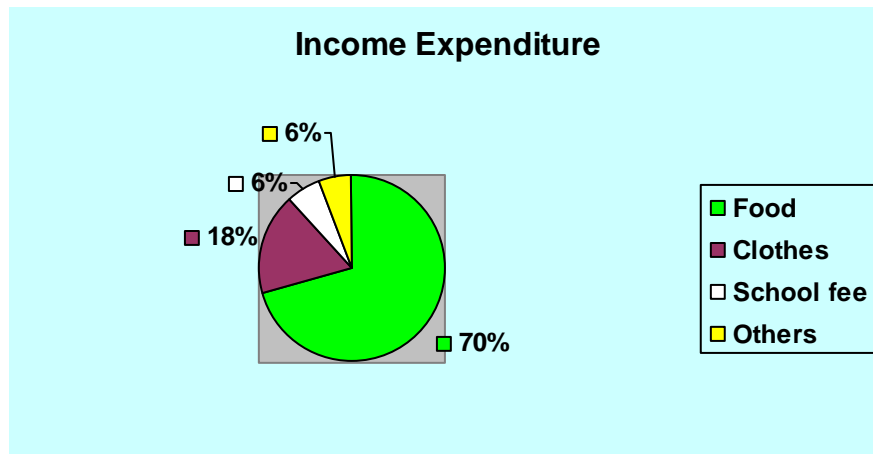


Figure 11: Income expenditure

example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)

Wealth Ranking

The community is asked to classify their households into three wealth categories: poor, middle and rich. The identified categories and its percentage can be shown in a pie chart.

Gender daily activity calendar

Men, women and children have different roles in traditional communities. It is important to establish these roles so as not to overburden an already overworked

group with new programmes, or to assign tasks to which they are not used. One method to discuss gender roles is to ask men and women separately to list their mainly daily activities. In a plenary discussion the men can then comment on the calendar presented by the woman and visa versa.

Seasonal calendar

A seasonal calendar attempts to establish patterns of activities throughout the year and to determine whether there are common periods of excessive workload or environmental problems or opportunities, and to time project activities. An example of a seasonal calendar as perceived by an agro-pastoral community is shown in Figure 12.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Rainfall			■	■	■	■		■		■	■	
Land preparation			■									
Planting				■								
Harvesting						■						■
Weeding			■	■	■	■	■	■	■	■	■	
Animal watering	■	■	■	■	■	■	■	■	■	■	■	■
Migration	■											■
Human disease	■											■
Animal disease			■	■								
Festivals/ Marriages							■	■	■			
<i>example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)</i>												

Figure 12: Seasonal calendar

Problem listing, analysis and ranking

There are a number of techniques to help the community to become aware of their problems and possible solutions. One way is to list all the problems they have encountered and then analyze each of them with respect to causes, coping strategy and opportunities. The result of such a problem analysis is shown in Table 22.

STEP 4/5/6: Identification, Screening and Appraisal of Options

Options assessment matrix

The creation of an options assessment matrix can help the community to identify sustainable and realistic solutions to their problems and formulate projects. In this exercise, the options identified earlier (step 3) are assessed against criteria such as sustainability, production, equity, social/cultural acceptability, technical feasibility, cost and time. In the example below (Table 23) the community members give each option a score of I (low) to III (high) against each criterion. The total score

determines the ranking of each option. The results of the option assessment will be used in the development of Community Action Plan (CAP).

Problem ranking can be done by pairwise ranking (see Chapter 6). In the example shown in Table 22, the community of Dhimbilriyaale ranked their problems as follows:

1. Poor Education facilities
2. Poor Human Health facilities
3. Low income
4. Water shortage
5. Poor Animal Health facilities
6. Environmental degradation
7. Low crop production (LCP)

Table 22: Participatory problem analysis

Problems	Causes	Coping Strategy	Opportunities
Water shortage	Recurrent droughts Water , soil runoff Deforestation Destruction of berkads Lack of dam de-silting Poor income	Purchase water during dry season Fetch water from distant places	1.Desilting of Balley 2.Rehabilitation of Berkads
Poor human health facilities	Low grade community health workers Lack of medical equipment shortage of drugs Insufficient TBA	Purchase medicine Take the patients to the hospital Traditional healing	1.Provision of drugs and medical equipment for the MCH 2.Training of CHW 3.Trainingr of TBA
Poor education facilities	Lack incentives for teachers Limited school classes Lack of feeding system Poverty	The rich pay incentives to the teachers Students share classes	1.Provision of incentives for teachers. 2.Provision feeding system 3.Extension of school classes
Poor animal health facilities	Shortage of drugs Plastic bags Parasites Vector/ticks Lack of veterinary post Poor training of CAHWs	Dipping Traditional healing Purchase animal drugs from cities Remove ticks	1.Training of CAHWs 2.Provision of veterinary drugs. 3.Construction of veterinary post
Low crop production	Lack of animal traction Water shortage Insects,Predators(monkey) Poor seeds Poor hand tools Lack of proper techniques	Cultivate with poor hand tools Borrowing money Selling livestock Buying insecticides	1.Provision of animal traction 2.Provision of tractor hours 3.Provision of hand tools 4.Training on proper crop production techniques
Low income (poverty)	Droughts Live stock ban Unemployment Poor natural economy	Sell milk Charcoal production Fire wood collection Sell fodder	
Environmental degradation	Water runoff Deforestation Gullies Cutting trees Charcoal burning	Fill gullies Make water diversions	1. Soil bunds

CHW=Community Health Worker CAHW=Community Animal Health Worker

example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)

Table 23: Scoring and ranking of opportunities

Opportunities	Sustainability	Productivity	Equity	Socio- cultural Acceptability	Technical Feasibility	Cost	Time	Score	Rank
Poor education facilities									
1.Provision of incentives for teachers	III	III	III	III	II	II	III	19	1
2.Provision of feeding system	III	III	III	III	II	II	III	19	2
3.Extension of school classes	III	III	III	III	II	II	III	19	3
Poor human health facilities									
1.provision of drugs and medical equipment for MCH	III	III	III	II	III	I	III	18	3
2.Training of TBA	III	III	III	II	III	II	III	19	1
3.Training of CHWs	III	III	III	II	III	II	III	19	2
Low income									
1.Restocking	III	III	III	III	II	II	III	19	1
2.Income generation	II	III	III	III	II	II	II	17	2
Water shortage									
1.Dam de-silting	III	III	III	III	II	II	III	19	2
2.Rehabilitation of berkads	III	III	III	III	II	II	III	19	1
Poor Animal Health									
1.Construction of Veterinary Post	II	III	III	II	III	II	III	1	3
2. Training of CAHWs	III	III	III	II	III	II	III	19	1
3.Provision of drugs and medical equipment of MCH	III	III	III	II	III	II	III	19	2
Environmental degradation									
1.Construction of soil bunds	III	III	II I	II	III	I	III	18	1
2.Gully control	III	III	II I	II	III	II	III	19	2
Low crop production									
1.Provision of hand tools	II	III	III	III	II	III	III	19	1
2.Training of proper crop production techniques	III	III	III	III	II	II	III	19	2
3 Provision of tractor hours	II	III	III	III	II	II	III	18	4
4.Provision animal traction									3
<i>example from PRA Dhimbilriyaale Community (Havoyoco/OxfamGB, 2007)</i>									

Technical expertise

The assessment of the options is an important stage in land use planning and requires good facilitation. The community may not be aware of all long-term implications of certain interventions. For example, the provision of “tractor hours” as a solution for “low crop productivity” may aggravate one of the other problems, which is environmental degradation. It is advisable that either community representatives or the facilitator discuss the outcome of the option assessment with specialists. The result of such a consultation could then be brought back to community for further discussion and revision.

STEP 7/8: Negotiating and Deciding upon Options; Project Implementation

The Community Action Plan (CAP)

The final end product of the PRA exercise is the community action plan (CAP) and it includes all the community’s development priorities. The CAP can be used to obtain funding from government, national and international development agencies, well-wishers, and the private sector. The CAP is a comprehensive document that covers the following:

- Development priorities as identified by the community
- Proposed actions and requirements
- Duties and responsibilities of individuals and groups
- Work schedule
- Identification of need for external assistance

The matrices, which rank the problems and opportunities of the community (see previous Section) form the basis of the CAP. The technical officers who facilitate the CAP formulation assist with advice on material inputs and cost estimation. The community indicates which type of resources they will provide. A time frame is set for each activity. Usually the Village Committee (VC) or Village Development Committee (VDC) oversees the implementation of project activities.

In the example of the community of Dhimbilriyaale (see previous Sections), the main problems related to land use are “Water Shortage”, “Poor Animal Health Facilities”, “Environmental Degradation”, and “Low Crop Production”. Examples of a CAP, addressing these problems is given in Table 24. The problems and the identified opportunities (columns 1 and 2) are listed in order of priority (see ranking in Tables 22 and 23).

A similar CAP for Diini-Goobaale community in Faroweine District is given in Table 25.

Development plan (map)

Depending on the type of action decided upon by the community, a map could be produced, showing land use management zones, sites of various infrastructure, etc. An example from Kenya of such a development plan is shown in Figure 14.

Table 24: Community Action Plan

Problem	Opportunity	Action	Resources needed	Community Contribution	External Contribut.	Time	Follow up
Shortage of Water	1.Rehabilitation of berkads	Survey Construction	Cement, sand, stone, water, unskilled labour, Funds	Sand Stone Unskilled labour	Funds	Nov 2008	VDC Donor
	2.De-silting of balleys	Survey Cost estimate Work plan	Tractor, unskilled labour, engineer, funds	Unskilled labour Fencing	Funds	Sept 2008	VDC Donor
Poor Animal Health Facilities	1.Training of Community Animal Health Workers	Identify trainees Training	Facilitation, venue Training material Funds	Selection of beneficiaries	Training cost	Aug 2008	VC Donor
	2.Provision of drugs and medical equipment	Purchase of drugs Distribution	Drugs Drugstore Medical personnel	Drug management	Funds	June 2008	VC Donor
	3.Construction veterinary post	Site selection Cost estimate	Unskilled labour Engineer Building materials,	Land, sand, stone	Funds	July 2008	VC Donor
Environmental Degradation	1.Construction of soil bunds	Survey Community mobilization Cost estimate Work plan	Hand tools Unskilled labour	Unskilled labour	Funds	Sept 2008	VC Donor
	2.Gully control	Survey Community mobilization Cost estimate Work plan	Hand tools Unskilled labour	Unskilled labour	Funds	Sept 2008	VC Donor
Low crop production	1.Provision of hand tools	Identify tools Select beneficiaries Purchase Distribute	Hoe, axe, wheelbarrow, fork, spade, hammer Funds	Selection of beneficiaries	Funds for handtools	July 2008	VC Donor
	2.Training on crop production techniques	Identify trainees Mobilization	Facilitation Training material Venue Funds	Selection of trainees	Training cost	Aug 2008	VC Donor
	3.Provision of tractor hours	Community mobilization Identify beneficiaries	Funds Tractor		Funds	March 2008	VC Donor
This community has both Village Committee (VC) and Village Development Committee (VDC)							
<i>Extracted from Dhimbilriyaale CAP (Havoyoco/OxfamGB, 2007)</i>							

Table 25: Community Action Plan (CAP) Diini-Goobaale, Faroweine District

Problem	Opportunity	Action	Resource	Who will provide	Time to start	Who will follow up	Remarks
Shortage of Water	a) De-silting of the dam	- to conduct survey - Cost estimate - De-silting the old balleys	Bulldozer Lorry Technical expert Labor Construction materials Meshwire Expenditure	Community External assistance	January 2004	VDC	Establish Water Sub-Committee
	b) Construction of new dam	- Survey - Cost Estimate - Construction of the dam	Bulldozer Lorry Technical expert Labor Construction material Water Expenditure Site for balley	Community External assistance	January 2004	VDC and Aid Agencies	VDC will provide land
Low crop production	a) Animal traction	- To bring oxen - Awareness - Selection of farmers - Oxen distribution	Trained oxen Ploughing implements Labor Economy	VDC Aid Agencies	Jan – June 2004	VDC	Establishment of Agricultural Sub-Committee Communicate with Aid Agencies
	b) Bush clearance	- Listing of farms - Cutting and clearing shrubs	Bulldozer Hand tools Tractor hours Labor Economy	VDC Aid Agencies	Jan – June 2004	VDC	
	c) Upgrade technical knowledge of farmers	- Train farmers - Selection of Farmers	Trainers Training facilities Training package Economy	VDC Aid Agencies NGOs	Jan – March 2004	VDC	
<i>CAP Diini-Goobaale, Faroweine District (after IFAD, 2003)</i>							

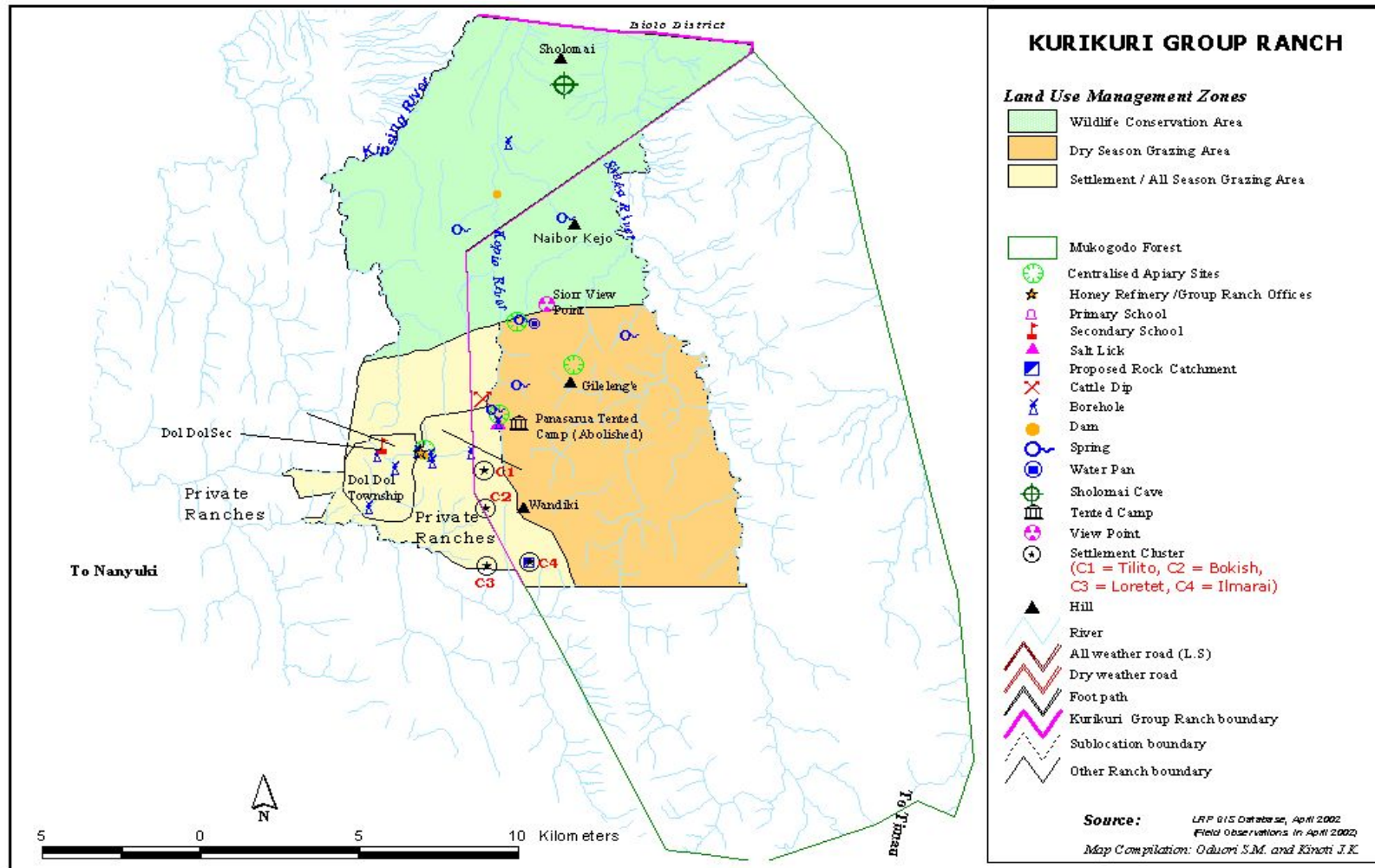


Figure 13: Development Plan for Kurikuri Group Ranch from the GPS field observations

STEP 9: Monitoring and Evaluation

Usually the VC or VDC oversees the implementation of project activities, as formulated in the CAP. Methods of participatory monitoring and evaluation are explained in Chapter 2. Usually, when donor funds are involved, the donor agencies also carry out their own external project evaluation.

The IUCN, under the Somali Natural Resource Management Programme (SNRMP), produced village environmental management plans in Somaliland for Qalloa, Salla Bari, Geed Deeble and Zeyla (Barrow et al, 2000). Some key lessons from this process are listed in Box 16.

Box 16

Some key lessons from the SNRMP village planning process

- Positive and constructive village level response
- Importance of capacity building and local ownership of the product
- Linking planning with implementation of some agreed activities
- Plans are useful tools to present to agencies for funding of some activities
- Length of the process took longer than people expected, but this helped to build ownership and a means for implementation
- Gender differences were managed and integrated, and the process was not overly dominated by the leaders as many people from the village were involved
- The planning process demonstrated the importance of the greater landscape, and being able to integrate pastoralist livestock movements
- Power issues were discussed in a reasonably open manner, based on power analysis
- Government showed interest in the process, as part of potentially larger scale land use planning

Source: IUCN, 2006

6 RESOURCES AND TOOLS FOR LAND USE PLANNING

Land use planning can be a very demanding process that may require the aid of different tools for completing the various stages. One of the most difficult steps is the one related to negotiating and selecting the land use options. To facilitate these tasks, various tools are available. These could be simple and only require pen & paper (e.g. “pairwise ranking”), or be more technologically demanding, such as computer-based Decision Support Systems (DSS) and Multi-Criteria Evaluation (MCE). A large number of techniques and tools are listed in Table 26, together with some references. A few selected techniques are described and illustrated in more detail.

6.1 Pairwise ranking

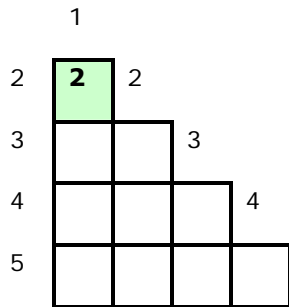
Pairwise ranking is a structured method for ranking a small list of items in priority order. It can help to make decisions in a consensus-oriented manner. Follow the following steps:

- a. Construct a pairwise matrix. Each box in the matrix represents the intersection (or pairing) of two items. If the list has five items, the pairwise matrix would have a total of ten cells (see Figure 14), with the top cell representing idea 1 paired with idea 2. If the list has ten items, the total number of cells in the matrix would be 45.
- b. For each pair, determine which of the two ideas is preferred, and write the number of the preferred idea in the appropriate box. Repeat this process until the matrix is filled.
- c. Count the number of times each alternative appears in the matrix.
- d. Rank all items. Rank the alternatives by the total number of times they appear in the matrix. To break a tie (where two ideas appear the same number of times), look at the box in which those two ideas are compared. The idea appearing in that box receives the higher ranking.

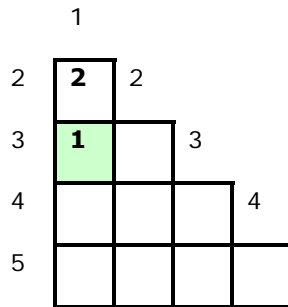
Table 266: Some techniques used in various stages of land use planning

Technique	Village level	District level	National level	Reference (examples)
- Non-participatory				
Literature study		x	x	
- Passive participation stakeholders				
Questionnaire	x	x	x	
Structured interview key informants	x	x	x	
Semi-structured interview key informants	x	x	x	(a)
Rapid Rural Appraisal (RRA)	x	x		
- Participatory or non-participatory				
Pairwise ranking	x	x	x	(e)
Livelihood analysis	x	x	x	(f)
Stakeholder analysis				(c)
Food preference ranking	x			(d)
Wealth ranking	x	x		(a) (f)
Problem identification; ranking and scoring	x	x	x	(a) (c) (d) (e) (f)
Organizational analysis; Venn diagram	x	x	x	(d) (f)
“Campfire” analysis; power & decisions	x	x	x	(b) (c)
Local history and trend analysis	x			(c)
Time-lines; listing events	x	x		
Seasonal activity analysis; diagram	x	x	x	(c) (d) (f)
Soils, vegetation, topographic surveys	x	x	x	(a) (b) (d)
Seasonal livestock movements	x	x	x	
- Participatory				
Participatory Rural Appraisal (PRA)	x			(e) (f)
Group discussions and activities	x	x	x	(a) (c) (e) (f)
Participatory diagramming	x	x		
Village resource mapping	x			(c) (e) (f)
Transect walks	x			(a) (d)
Participatory mapping and modeling	x	x	x	(d)
Brainstorming	x	x	x	(a)
Gender sensitization	x	x	x	(a) (c) (d) (e) (f)
Watershed & community area delineation	x			(a) (c)
Action planning	x	x	x	(a) (d) (e) (f)
Participatory and result-based monitoring	x	x		(a)
Participatory Integrated Community Dev.	x			
<i>See also: The use of Participatory mapping Tools (IUCN, Barrow, 1999)</i>	(a) Examples from Ethiopia (Lakew Desta et al, 2005) (b) Examples from Somaliland (Barrow, 1998) (c) Examples from Somaliland (Barrow, 2000) (d) Examples from Ethiopia (GTZ, 1999) (e) Examples from Somaliland (IFAD, 2003) (f) Examples from Somaliland (HAVOYOCO/Oxfam, 2007)			

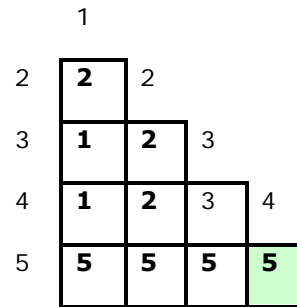
1 and 2 compared:
2 is better



1 and 3 compared:
1 is better



4 and 5 compared:
5 is better, etc. (fill all squares)



Option 5 appears 4 times in the matrix and is therefore ranked as first
Option 4 appears 0 times in the matrix and is therefore ranked as last

Option	1	2	3	4	5
Count	2	3	1	0	4
Rank	3 rd	2 nd	4 th	5 th	1 st

Figure 14: Pairwise ranking

Example

Objective: <i>solve conflict between (outside) pastoralists and resident agro-pastoralists caused by blocking of old livestock corridors by recent crop enclosures</i>									
Options									
1. Remove enclosures and restore old routes		1							
2. Establish new (but longer) routes	2	2	2						
3. Prohibit large seasonal livestock movements through village	3	3	2	3					
4. Do nothing	4	1	2	4	4				
5. Allow and facilitate crossings during specific times outside cropping season	5	5	2	5	5	5			
6. Pastoralist pay Farmers compensation for damage to crops and fences	6	6	6	6	6	5	6		
7. Resident Farmers pay compensation to Pastoralist for blocking their route	7	7	2	7	7	5	6	7	
8. Take the dispute to higher authorities	8	1	2	8	8	5	8	8	
Ranking: Options 2 and 6 score first; option 6 goes on top Option 3 and 4 score last; option 3 goes to the bottom									

6.2 SWOT analysis

In a SWOT analysis the Strengths, Weaknesses, Opportunities and Threats associated with a number of possibilities are analyzed and presented in a matrix. Table 27 gives an example of a SWOT analysis of various energy sources as an alternative to charcoal. The SWOT analysis does not give a final answer or score, but provides an overview of all the positive and negative sides of each option.

Table 27: Example of SWOT analysis

	Strengths	Weaknesses	Opportunities	Threats
Coal	<ul style="list-style-type: none"> ▪ most appropriate alternative to wood or charcoal ▪ reserves available in several regions of Somaliland (Sahil, Sanag, Awdal) 	<ul style="list-style-type: none"> ▪ lack of adequate information on extent of deposits ▪ lack of infrastructure to access deposits ▪ lack of government policy governing coal ▪ lack of coordination among various stakeholders 	<ul style="list-style-type: none"> ▪ can reduce forest destruction ▪ suitable for long-term development ▪ cheap once developed ▪ can replace established charcoal networks ▪ affordable to rural/urban people ▪ can generate electricity for household and industry ▪ earns foreign currency ▪ large-scale production encourages industrialization 	<ul style="list-style-type: none"> ▪ harmful gases must be removed before combustion ▪ without proper care and knowledge, mining may have negative environmental impact
Solar energy	<ul style="list-style-type: none"> ▪ an abundant resource ▪ solar panels can be locally assembled, creating jobs ▪ increases in demand will eventually reduce costs ▪ environmentally friendly 	<ul style="list-style-type: none"> ▪ few trained, skilled technicians ▪ equipment is fragile ▪ limited consumer awareness and confidence in technology ▪ no policies governing use 	<ul style="list-style-type: none"> ▪ economic development ▪ immediately accessible ▪ 25% of urban people could afford solar technology 	<ul style="list-style-type: none"> ▪ none
Kerosine	<ul style="list-style-type: none"> ▪ kerosene and stoves available in the market ▪ no need for research ▪ no health hazard ▪ cheaper than LPG ▪ portable ▪ can be used in rural and urban areas 	<ul style="list-style-type: none"> ▪ imported ▪ no policy and regulations ▪ no controlled prices during supply shortages 	<ul style="list-style-type: none"> ▪ socially acceptable ▪ tax exempted ▪ funded by community internally 	<ul style="list-style-type: none"> ▪ no appropriate training ▪ fire hazard ▪ no constant and reliable supply ▪ high prices during shortages ▪ low awareness of its uses ▪ high potential trade with neighboring countries

▪ Source: ADP (undated)

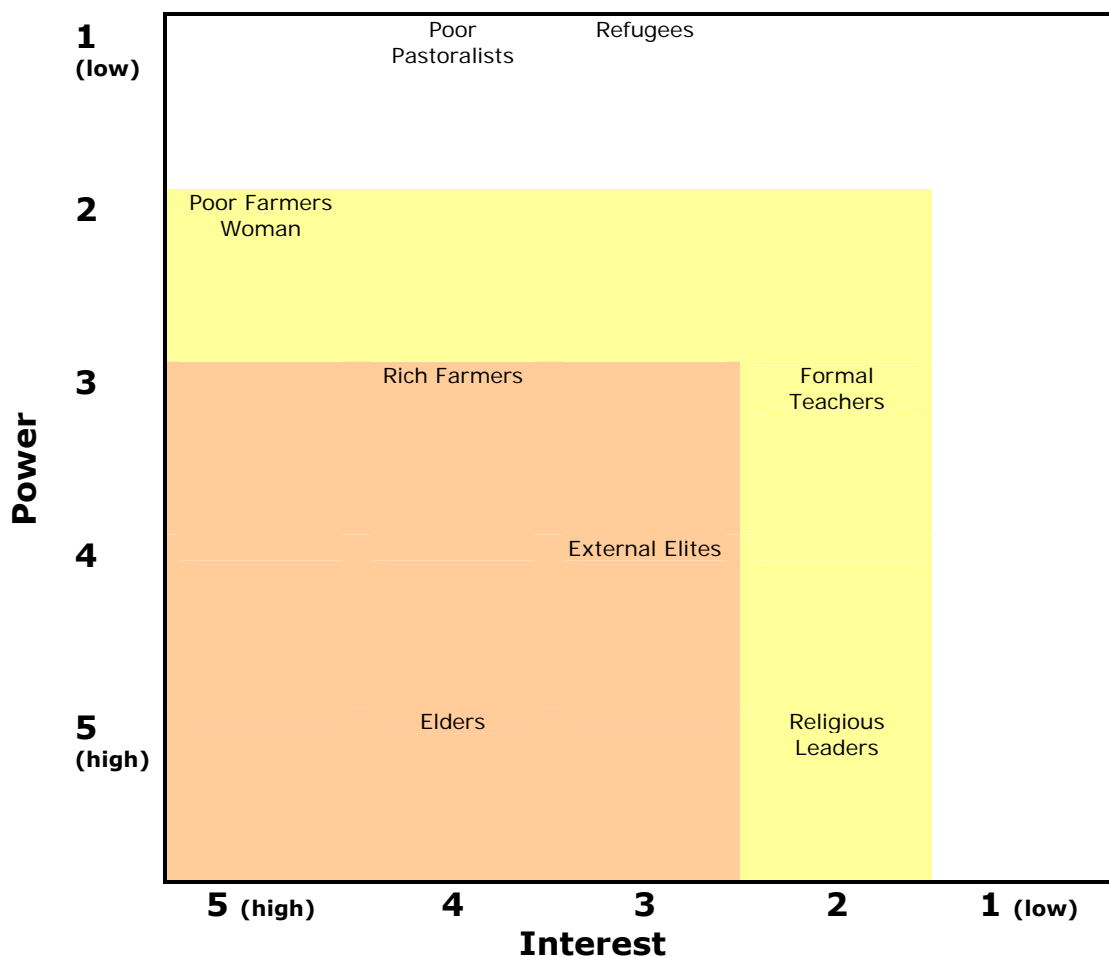
6.3 Stakeholder Power/Interest Analysis

Power/Interest Matrix

A useful tool to analyze power and interests of stakeholders is a procedure which subjectively assigns a score of 1 (low) to 5 (high) to each stakeholder's power and interest with respect to a specific land-related issue. Table 28 shows an example of this technique, where the first column lists the stakeholders and the second and third columns are their scores for power and interest, respectively.

Table 28: Power/interest matrix (example)

Stakeholder	Power	Interest
Poor farmers	2	5
Rich farmers	3	4
Elders	5	4
Formal Teachers	3	2
External elites	4	3
Woman	2	5
Poor Pastoralists	1	4
Religious leaders	5	2
Refugees; displaced people	1	3



“Campfire” analysis of stakeholders and power relations

The importance and power of various stakeholder groups can also be shown through a so-called Campfire analysis (Barrow, 1998). In this analysis stakeholder groups are represented by circles, with the size of the circle proportionate to the size of the group. The groups (circles) are then positioned relative to a central point (Campfire), which is the seat of power and decision-making. The closer the group (circle) is to the central point, the more power and influence it has on decision-making. An example from Qalao village on decision-making with respect to natural resources is shown in Figure 15.

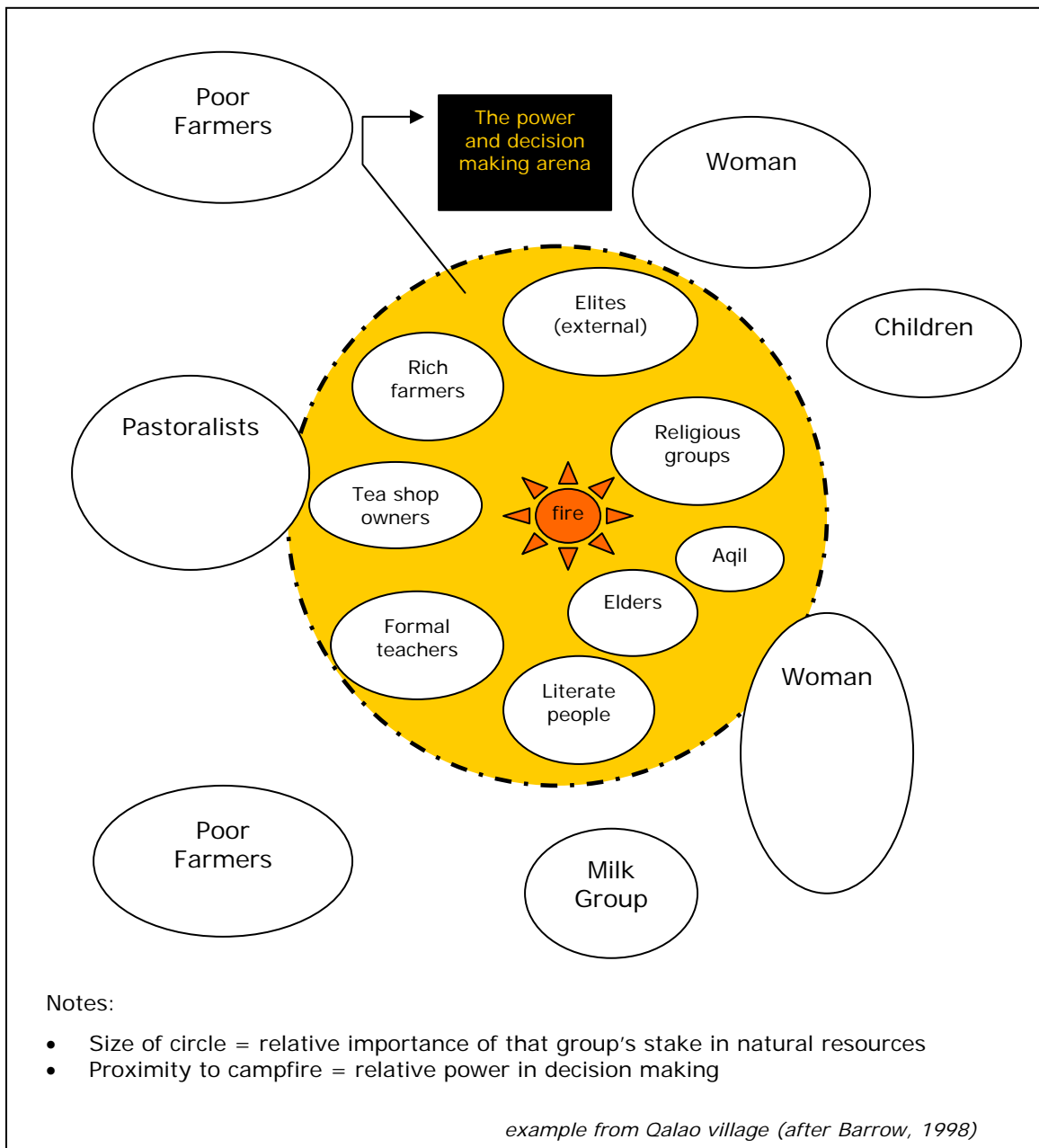


Figure 15: “Campfire” analysis of stakeholders and power relations

6.4 Decision Support Systems and Spatial Multi-Criteria Evaluation

Decision Support System

A Decision Support System (DSS) is a computerized system that helps managers and planners in the process of decision making. DSS can help to make any kind of decision, from buying a new car, choosing a job, hiring a new staff member, to evaluating a project proposal, identifying a building site and selecting the most suitable land use.

Examples of activities and procedures in which DSS are frequently used are:

- Land use planning
- Forest certification
- Forest monitoring
- Development programs
- Resource allocation
- Transport networks and connections

Spatial Multi-Criteria Evaluation

Multi-Criteria Evaluation is a procedure that involves the evaluation of several criteria to meet a specific objective. Spatial Multi-Criteria Evaluation (SMCE) is a process that combines and transforms geographical data (the input) into a decision (the output). The basic elements of SMCE are:

- input of relevant geographical data (e.g. digitized maps)
- formulation of the decision maker's preferences
- manipulation of the data and preferences according to specified decision rules

SMCE is a means of simplifying complex decision-making tasks involving many stakeholders and/or many variables and it helps to achieve compromise in decision making. With SMCE, structure and transparency can be imposed upon the decision-making process. SMCE is frequently used for planning activities such as the siting of residential areas, demarcation of parks, and the delineation of water catchments and irrigation sites. It is a process in which multiple layers ("themes") are aggregated to yield a single output map. SMCE identifies alternatives or options to be investigated to reach a decision. It also identifies a set of criteria by which to rank these alternatives. SMCE identifies the preferences or weights the stakeholders assign to the various criteria (through pair-wise ranking) and also identifies the aggregation procedure by which the criteria-specific rank orders are aggregated into a single 'compromise' rank order. The result of SMCE is a preferred option or set of options based on a rigorous definition of priorities and preferences decided upon by the decision-maker.

The following steps can be identified in SMCE:

- Choosing the stakeholders to be involved in the process
- Formulating the objectives
- Identifying the options
- Selecting the criteria
- Weighting the criteria
- Assessing the options
- Sensitivity analysis
- Interaction and iteration

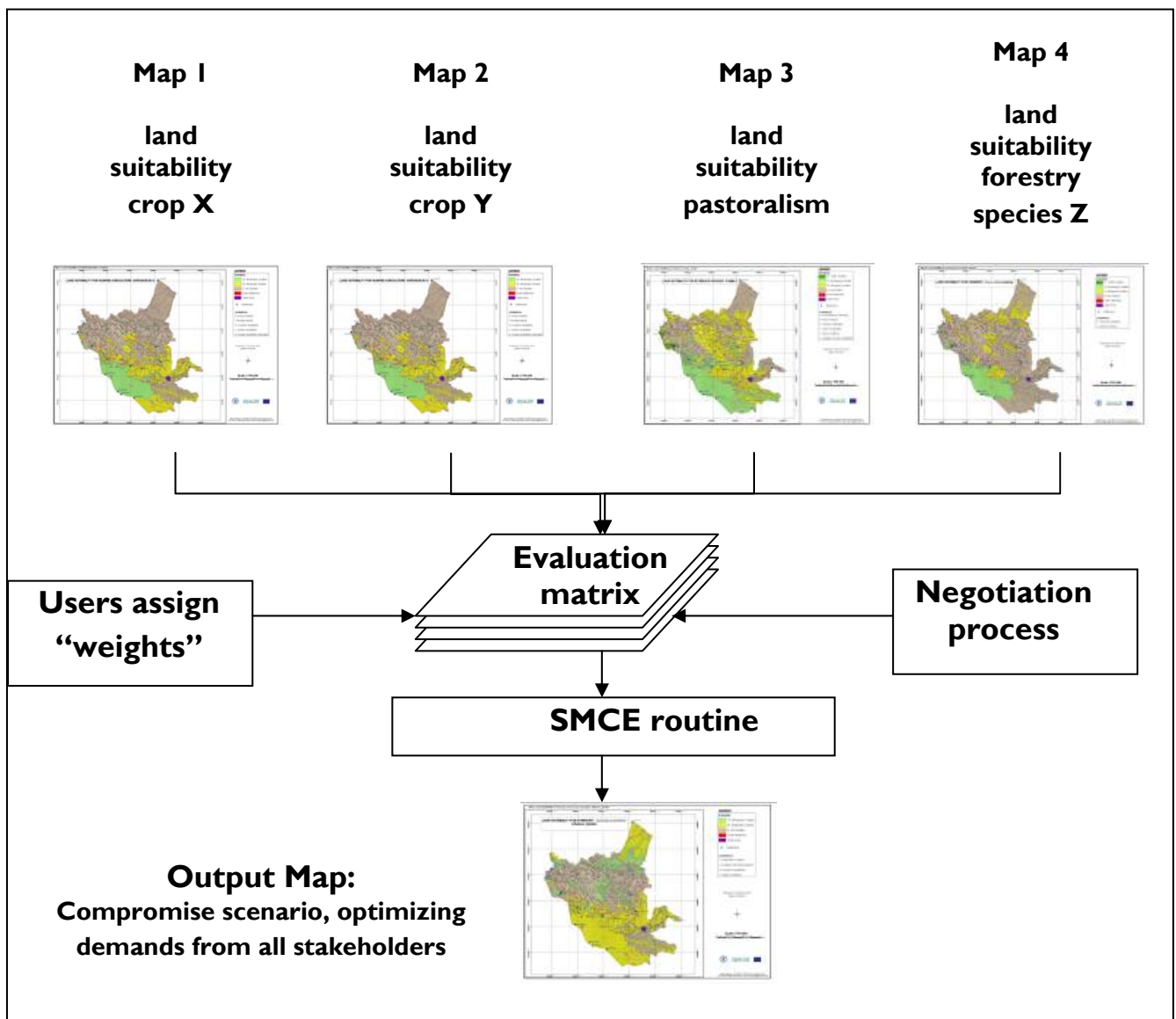
Example of SMCE application: selection of the best land use in an agro-pastoral

Problem definition: The Agro-pastoral area in western Somaliland (commonly known as the sorghum belt of the north) is a land use system that recently has increased in area because crop producers (previously pastoralist) are encroaching on grazing land. This process has caused land use conflicts between pastoralists and agro-pastoralists. A land suitability assessment was performed in order to identify the potential of the land for different rural land uses. A negotiation process is needed among the various land users and relevant institutions in order to select the proper land use in the area concerned. SMCE can be of help in this process.

Criteria: Bio-physical land suitability for various uses, including crop production, pastoralism and conservation activities (re-vegetation).

Input Maps: Suitability maps for: crops (short and long term varieties of sorghum, maize, cowpea), livestock (goats, sheep, camels, cattle), and various forestry species.

Figure 16: Example of SMCE application



6.5 Gross margin budgets⁸

A 'gross margin' is the gross income from an enterprise less the variable costs incurred in achieving it. It does not include fixed or overhead costs such as depreciation, interest payments, rates, or permanent labour. Gross margin budgets are intended to provide a guide to the relative profitability of similar enterprises and an indication of management operations involved in different enterprises.

Budgets are calculated using:

- crop yields for the region, animal weights, etc. that are consistent with the operations given
- forecast commodity price
- current input costs
- technical information provided by agronomists

The aim of gross margin budgets is to provide producers with an additional planning tool to help evaluate options.

The degree to which these budgets reflect actual returns will be influenced not only by general factors common to all farms, such as prices and seasonal conditions, but also by the individual farm characteristics, such as soil type, crop rotation, pasture quality and management.

Variable costs are those costs directly attributable to an enterprise and which vary in proportion to the size of an enterprise. For example, if the area of sorghum sown doubles, then the variable costs associated with growing it, such as seed, chemicals and fertilisers, will roughly double.

A gross margin is not profit because it does not include fixed or overhead costs such as depreciation, interest payments, rates and permanent labour, which have to be met regardless of enterprise size.

Gross margins are generally quoted per unit of the most limiting resource, for example, land, labour, capital or irrigation water. Crop gross margins are provided on a per hectare basis and also per megalitre of water in the case of irrigated crops. Livestock budgets express outcomes in terms of gross margin per animal (e.g. per breeding cow) or gross margin per hectare.

The calculation of a gross margin is the essential first step in farm budgeting and planning. It enables a direct comparison of the relative profitability of similar enterprises, and consequently provides a starting point to deciding or altering the farm's enterprise.

Gross margins need to be applied carefully when used to decide a farm's overall enterprise mix. Because overhead costs are excluded, it is advisable to only make comparisons of gross margins between enterprises which use similar resources. For example, sorghum and maize are considered to be similar enterprises.

Caution should be taken when comparing gross margin returns from livestock and cropping enterprises due to different land, labour and equipment requirements.

⁸ derived from website Australia New South Wales Dept. of Primary Industries

Other budgeting techniques

Whole farm budget: Generally includes a summary of farm assets and liabilities and estimates various profit measures by taking into account total gross margins for each of the enterprises considered, as well as the farm overhead costs (such as rates, interest payments, depreciation, administration, employed labour, insurance) and an allowance for family labour. Profitability from different enterprise mixes can be compared on a whole farm basis using this type of budget.

7 GUIDELINES FOR PROJECT PROPOSALS

Introduction

Project proposals related to land use planning can vary greatly in scope and content. They could have varying objectives, such as the construction of a few water points related to a Community Action Plan (see Chapter 5), the training of resource personnel, the formulation of land use laws, or the demarcation and mapping of land for specific uses. A number of land use planning priorities were identified during a SWALIM Land Use Planning Workshop in Hargeisa in February 2009 (see Annex 4).

Identification of development partners

Because of the limited technical and financial resources of the Government and most of the rural population, land use planning often needs the facilitation or financial support from national and international development agencies. Table 10 (Chapter 3) gives a list of institutions and organizations recently involved in land use planning in Somaliland. This list is by no means complete, but gives an indication of the type of stakeholders involved. As priorities of development agencies change continuously, both with respect to geographical area covered and with respect to development priorities and activities, no definite list of partners can be made for Somaliland. In the case of Somaliland it is probably not so difficult to find out who the main development partners are at a given time. Most of them have representatives in Hargeisa and a simple internet search can help to identify others.

Resources, tools, formats

A valuable resource for project identification is a publication with the title "Project Identification and Design: Support to Marginal Rural Areas in Somalia." Workshop proceedings presented to the EC in Kenya, May 2005. GFA Terra Systems, 2005.

Formats for substantial project proposals have been compiled by FAO (2004) (Box 17 and Table 29).

Examples

Annex 5 gives some examples of participatory land use management projects in Tanzania. Other examples can be found in the List of References at the end of this report.

Box 17: Project Proposal Format *(after FAO, 2004)*

1. Cover page

The cover page includes the area concerned (photo), project title, Working Group's name, etc. Make it brief, simple and pleasant.

2. Executive Summary

- Provide a short summary of the goal, purposes and principal expected results of the project.
- List the partners and organizations involved.
- State the estimated duration of the project.
- State the total funding requested from public or private investments, together with the financial contributions expected from partner organizations and other sources.

3. Background

- Provide relevant social, political, economic and/or other information to describe the local context and the development challenges being addressed, i.e., what are the problems or issues to be addressed, and why are they important in the municipality?
- If it is the case, describe how other government and/or donor programmes may support the proposed project.

4. Justification

- Describe the link between the proposed project and the development challenges defined above. How does the project respond to local developmental needs and priorities?
- Describe how the project is in line with the territorial pact, how aware the local population is as to their rights and responsibilities as citizens, their empowerment as citizens (includes power-sharing, participation and influence in decisions) and their satisfaction with local organizations that could assist in improving their lives.

5. Project Description

- Table 9, below illustrates a framework or for presenting your project. Describe each element in narrative form in a project proposal framework. It provides an overview of the project, summarizing and integrating many of the key issues, including the project goal, purposes, resources, results at three levels and risks.
- Benefits to the entire municipality. What positive effects will the project have in the municipality: political, scientific, institutional, commercial, or other?
- Technology Use: Define the "technology" (model or approach) that the project will use or need. Assess the relevance of this technology to the local developmental context.

6. Environmental sustainability

Using the services of a technical expert if necessary, describe the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out.

Include:

- The significance of the effects;
- Comments received from the public, if any;
- Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects;
- Any other relevant matter such as the need for and alternatives to the project;
- Describe how the project will respect the local environment and promote sustainable development.

7. Management Strategy and Structure

- Outline how the project will be managed, including planning (i.e. the preparation of annual work plans), collecting baseline data, monitoring and reporting functions.
- Indicate how the partner organizations and other participants will work together and foster equitable participation in the management of the project

8. Communications Strategy

Describe your strategy in promoting the project to key stakeholders and to a wider audience in the municipality. The strategy should include:

- Goals and objectives
- Audiences and key messages
- Media of communication (print, website, events, radio or television broadcasts, etc.)
- Schedule of events/broadcasts/distribution
- Initiatives for both municipal and external audiences

9. Partners

Briefly describe the origins of the proposal: how the partner organizations came together and how the proposal was developed.

Public Partners:

- Provide a brief profile of the public partners (including addresses, names of the key contact person) and their potential roles.
- Explain why the leading public partner is the most appropriate to implement the proposed project, based on his technical and managerial experience and capacity.
- Explain how the proposed project fits with the mandates, priorities and existing programmes of the leading public partner.

Private Partners:

- Provide a brief profile of the private partners (including addresses and names of the key contact person) and their potential roles.
- Explain why the leading private partner is the most appropriate to implement the proposed project, based on his technical and managerial experience and capacity.
- Explain how the proposed project fits with the mandates, priorities and existing activities of the leading private partner.

10. Future funding needs

If the project will be implemented or will require maintenance beyond the funding requested, explain how the project proposal plans to cover future financial needs.

If partial funds are requested from a funding source, explain how and where the project proposal can obtain the remaining funds.

11. Supporting documents

Maps, blueprints, photos, visual aids, etc.

Table 29: Project Proposal Format

District		Project No.	
Project Title		Project Budget	
Partner Organization		Project beneficiaries	
Working Group Name / Planner		Technical expertise required	
NARRATIVE SUMMARY	EXPECTED RESULTS	PERFORMANCE MEASUREMENT	ASSUMPTION/RISK INDICATORS
Project Goal :A broad statement of intent which relates this project to the land development portfolio goal.	Future Results (Impacts): The future results are development results that will benefit the target population/society in the future. They are the logical consequences of the outcomes and outputs described below.	Performance Indicators: These performance indicators will provide evidence that the project has made a contribution to the achievement of the expected result. They can be quantitative or qualitative.	Assumptions: the necessary conditions that must exist for the future results to be achieved as expected. Risk Indicators: will measure the status of the assumptions identified above.*
Project Purpose: A project-specific statement of intent that describes what project partners expect to attain by the end of the project. It explains what will be done in development terms. It should also identify intended beneficiaries.	End-of-project Results (Outcomes): The results that partners have committed to achieve by the end of the project. They will normally focus on a partner organization and its target and are the logical consequence of achieving a specified combination of short-term results (outputs) (see below).	Performance Indicators: These performance indicators will provide evidence that the project has achieved the stated medium-term results.	Assumptions: the necessary conditions that must exist for the end-of-project results to behave as expected. Risk Indicators: will measure the status of the assumptions identified above.*
Resources: Resources can be financial, human, or physical and are necessary for carrying out project activities and achieving its intended purpose and goal. They should be divided into resources requested of public and private sides and those being provided by others.	Short-term Results (Outputs): Developmental results that are immediate, visible, concrete and tangible consequences of completed project activities.	Performance Indicators: These performance indicators will provide evidence that the short-term results have been achieved.	Assumptions: the necessary conditions that must exist for the short-term results to behave as expected. Risk Indicators: will measure the status of the assumptions identified above.*

* High-level of risk - project managers have little or no control over political, environmental, social risk factors.
Medium/Low-level of risk - project managers have some control over risks factors.

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L-01 Field Survey Manual

L-02 Landform of selected study areas in Somaliland and Southern Somalia

L-03 Land cover of selected study areas in Somaliland and Southern Somalia

L-04 Land use characterization of a selected study area in Somaliland

L-05 Soil survey of a selected study area in Somaliland

L-06 Land suitability assessment of a selected study area in Somaliland

L-10 Land degradation assessment of a selected study area in Somaliland

L-11 Application of remote sensing techniques for the assessment of pastoral resources in Puntland

L-12 Land Resources Assessment of Somalia

W-01 Climate of Somalia

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Annex 1: FSAU Baseline Profiles

LIVELIHOOD BASELINE PROFILES

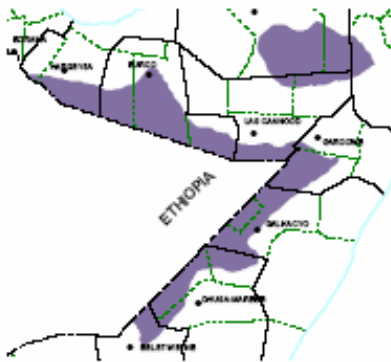
Hawd and Sool, Pastoral:
Camels, Goats, Sheep and Cattle



Food Security Analysis Unit



Map of Livelihood Zone & Population Figures



Description of LZ

- Sool is a higher area that stretches north towards the border with Samal and east to the border with Bari region. Located south of Lasanod town, the Hawd plateau merge with the wider Hawd zone in Ethiopia. These plateaux have no permanent natural water sources and rely on man-made beekads and valleys.
- The Hawd is an area of prime browsing and good grazing.
- Pastoralists make up 80-90% of the population.
- Camels and goats are the major animals. Cattle and sheep are less dominant, though cattle rearing has become more common with the increase of beekads – cattle need less herding and allow good ghee production.
- In the dry season, the herd is divided, with smaller ruminants and less hardy animals (pregnant and lactating) staying with the core family near villages and beekads, while hardy and mobile animals are led to distant ranges and water points.
- Export of livestock fund a large part of the import of foods in this area. Livestock is often bartered for foodstuffs.
- Cattle and goat milk is consumed fresh, especially in the wet season and also converted into ghee. Camel milk is consumed sour, and lasts longer for storage and sale. Meat is eaten fresh and preserved using traditional methods.
- Remittances are an important part of HH income, from urban relatives and the diaspora.
- A particular vulnerable group are those that were displaced by war and are struggling to restock their herds.
- Only the better-off and some middle HHs own beekads and therefore, sell water in the dry season. *Kalil* is the hunger season just before the *Ga* rains and is a time of high labour needs for collecting water.
- Poor pastoralists, with small livestock size and high water expenditure in dry times are a vulnerable group.

Wealth Breakdown

Wealth is measured by herd size.



Poor 20-30% Middle 45-55% Better off 15-20%

Wealth Group Characteristic

Poor	Middle	Better off
HH size 8-9 people	HH size 6-7 people	HH size 8-10 people
50-60 shoats	80-100 shoats	200-250 shoats
5-10 camels	10-15 cattle	25-30 camels
0-1 donkey	25-30 camels	30-40 cattle
	0-1 beekad	1-2 beekads
Annual income: \$ 350	Annual income: \$ 450-500	Annual income: \$ 700 +

Time Line

Event	Production
1990 Insecurity	Normal year Normal <i>Ga</i> and <i>Deyr</i> rains and production.
1991 Government collapse. Start of insecurity.	Poor year Poor rains, low livestock production.
1992 Insecurity and livestock loss	Bad year Poor rains. Poor livestock trade and production.
1993 Peace restored in the north.	Normal year Good rains.
1994 Trade routes reopened	Normal year Localised drought in Hawd.
1995 Acute water shortage in Hawd. High camel deaths.	Bad year Low animal production.
1996 Post drought recovery.	Good year Good livestock production.
1997 El Nino induced rains. High animal production rate.	Good year Excellent livestock production and good pasture.
1998 Livestock ban – low pastoral purchasing power.	Bad year Low <i>Ga</i> , production maintained by 1997 <i>Deyr</i> .
1999	year
2000 Livestock ban re-introduced in September.	year

Normal Year Definition:

In a normal year, terms of trade are:
1 shoat = 1.50 kg bag of rice

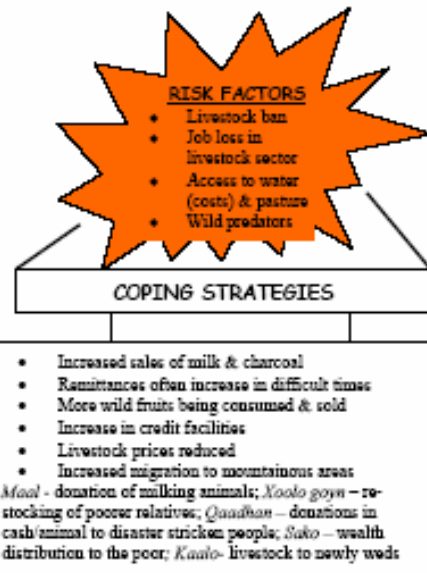
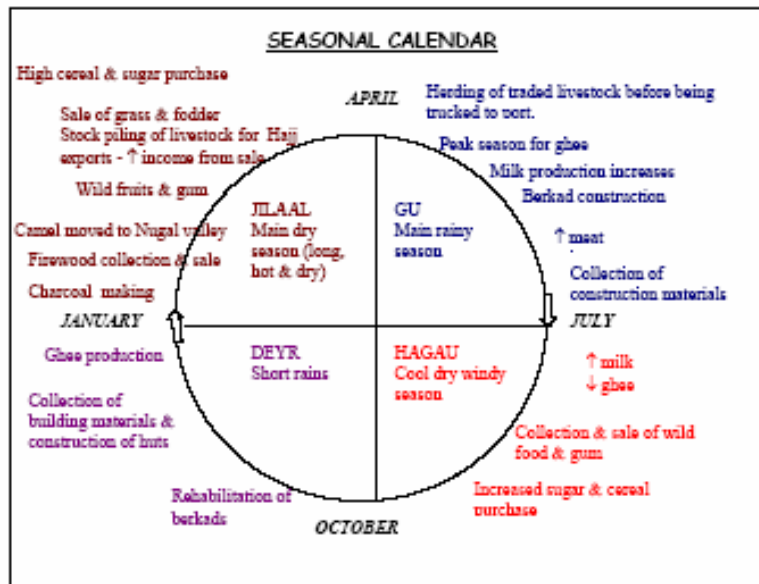
Normal dry season water price is
Sch 1,000 for 20 l
No water trucking would be necessary in the dry season.

POOR

Sources of Food	Sources of Income Annual income = \$	Expenditure Pattern
<p>Gifts 10-15%</p> <p>Wild foods 0-5%</p> <p>Own products 25-35%</p> <p>Purchase 50-60%</p>	<p>Gifts & remitt 10-15%</p> <p>Wild foods 5-10%</p> <p>Livestock & livestock products 40-45%</p> <p>Employment 35-40%</p>	<p>Shoes & clothes 10-15%</p> <p>Livestock drugs 5-10%</p> <p>Other needs 5-10%</p> <p>Water 15-20%</p> <p>Food 50-55%</p>
<ul style="list-style-type: none"> > Over half the annual food consumption is met through purchase comprising mostly of cereals (rice, flour & sorghum) & sugar, dates & animal fats. > Goats milk and wild foods contribute the rest with gifts of milk donations & lactating animals on loan. > Wild foods include babob, figs, dik-dik 	<ul style="list-style-type: none"> > The main source of income derives from livestock and livestock products & employment. > Employment opportunities include herding, labouring & construction. > Remittances are a regular and normal part of the Somali economy and benefit the poor significantly. 	<ul style="list-style-type: none"> > About half the annual income is spent on foodstuffs and the balance spent on non-food items such as clothes, kerosene, medicine, soap and koranic schooling. > Water is a significant expense in a normal year

MIDDLE

Sources of Food	Sources of Income Annual income = \$	Expenditure Pattern
<p>Purchase 45-55%</p> <p>Wild foods 0-10%</p> <p>Own production 45-55%</p>	<p>Water sales 5-10%</p> <p>Remitt 0-10%</p> <p>Livestock Sale 40-45%</p> <p>Self-employment 10-15%</p> <p>Livestock products 30-35%</p>	<p>Shoes & clothes 10-15%</p> <p>Other needs 5-10%</p> <p>Livestock drugs 5-10%</p> <p>Water 15-25%</p> <p>Food 40-50%</p>
<ul style="list-style-type: none"> > Most of the annual food contribution comes from own produce including meat, milk & ghee, with a small proportion coming from purchasing cereal, sugar, dates and oil > 5,110 litres of milk is produced per year with 1,250 litres skimmed and 46kg of ghee - 50-60% consumed. 	<ul style="list-style-type: none"> > Main income from the sale of their livestock & sale of animal products especially camel milk. Goats milk is more important for home consumption. > Control of milk income is shifting from the woman's responsibility to the men as it becomes more of a commercial commodity. 	<ul style="list-style-type: none"> > 30-35% of income is spent on food items cereal, sugar, & oil. > 60-70% of middle households do not have their own water supply and so spend up to 30% of their income on water costs for their livestock.



Prepared April 2000 by the Food Security Assessment Unit (FSAU) and Save the Children (SCF (UK)) for Somalia. While all efforts have been made to utilize the most accurate data and information available, neither FSAU, SCF nor any of their supporters or partners endorse any figure or political boundary as definitive. For more information, contact FSAU, PO Box 64902, Nairobi, Kenya. Tel: (254-2) 622929

Annex 2: Examples of environmental laws in Botswana

Source: Department of Environmental Affairs Ministry of Environment, Wildlife and Tourism, Botswana

There are laws to cover land use and land use rights, abiotic and biotic resources, and the use and management of the resources for all areas in Botswana

- Agricultural Resources (Conservation) Act (1973): Provides for the conservation of Botswana's agricultural resources. The Act defines agricultural resources as animals, birds, plants, waters, soils, vegetation, etc.
- Environmental Impact Assessment Act (2005). Provides for the EIA to be used to assess the potential effects of planned developmental activities; to determine and to provide mitigation measures for effects of such activities as may have a significant adverse impact on the environment; to put in place a monitoring process.
- Fish protection (1975): Allows for the protection and sustainable management of fish resources.
- Forest Act (1976): Deals with forest reserves, protected trees and the control of forest products.
- Herbage Preservation (Prevention of Fires) (1978): All persons require permission from the Herbage Preservation Committee to set fire to any vegetation on land of which one is not the owner or lawful occupier.
- Mines and Minerals (1977): Prohibits wasteful mining and processing.
- National Monuments and Relics Act (date ?): Provides for better preservation and protection of ancient monuments, ancient workings, relics, etc.
- Noxious Weeds (1916): Allows for the control of arable and aquatic weeds by making land owners or occupiers responsible for destruction of weeds.
- Public Health (1981): Protects the quality of water used by the public, by controlling the disposal of polluted water and control of mosquito larvae
- State Land (1966): Controls use of state land and its resources.
- Town and Country Planning (1980): Requires development plans for all areas declared as planning areas.
- Tribal Land (Amendment) Act (1993): Allows for determination of land use zones. Land grants must not conflict with the zoned land use. Land Boards may determine management plans for use and development of the zones
- Tribal Land Act (1970): In areas of tribal land, the act controls land use rights and makes provision for the imposition of restrictions.
- Waste Management Act (1999: Management of hazardous waste.
- Water (1968): Defines ownership, rights and use of public water. It also prohibits the pollution, fouling or poisoning of, interference with, or flow alteration of public water.
- Wildlife Conservation and National Parks Act (1992): Enables gazettement of national parks, game reserves and Wildlife Management Areas (WMA) in which wildlife conservation and use is the primary land use. The WMA Regulations could be a useful tool for managing wetlands in WMAs.

Annex 3: Abstract of Master-Plan for Somaliland Agriculture Sector

Reference: Master Plan for Reconstruction and development of the Somaliland agriculture sector (MoA & ESCALI, 2007)

Types of Agric. systems:

1. Agro-pastoral rainfed Agriculture
2. Pump-fed Irrigated Agriculture
3. Spate Irrigated Agriculture

Constraints

1. Inadequate rainfall
2. High cost of farm inputs
3. Poor agronomic and cultural practices
4. Lack of appropriate technology
5. Land degradation (soil erosion)
6. Lack of farm labour through rural-urban migration
7. Inadequate capital for rehabilitation of infrastructure and procurement of appropriate technology
8. Poor marketing infrastructure and services
9. High cost of irrigation
10. Inadequate extension services
11. Lack of credit

Opportunities

1. existence of appropriate technologies (e.g. irrigation)
2. soil and water conservation
3. improved
4. etc

Structure of Ministry of Agriculture

Minister, vice-minister, director general

Regional Coordinators, District Coordinators

Departments (4):

- 1 Crop Production
 - o Crop Production Section
 - o Crop Protection and Quarantine
 - o Extension, Research & Credit: Community mobilization for planning and implementation of agric. projects
 - o Marketing
- 2 Admin & Finance
 - o Admin
 - o Finance
 - o Personnel
- 3 Land & Water Development
 - o SWC & Irrigation: Planning of SWC measures
 - o Land Registration: Land use surveys and land suitability classification
 - o Agro-meteorology
- 4 Planning and Information management

- Planning, Coordination & M&E: strategic planning; projects planning; M&E
- Information Management

Strategic Objectives

- ✓ Institutional Capacity Building
 - Dev. of sector policy and regulations: incl. land tenure, agric. dev. plans
- ✓ Improve coordination of sector activities
- ✓ Increase Agric. production
- ✓ Improve agric support services
- ✓ Promote sustainable agric. use and management
 - Community participatory approaches to catchment planning
 - protection and rehabilitation of catchments
 - re-afforestation (social forestry programmes)
 - Nat resource utilization and management
 - Community tree nurseries
 - Controlled grazing through fencing off catchments
 - SWC
 - **Integrated land use Planning**
 - Agro-forestry
 - Adaptive research

Annex 4: Priority land use planning activities in Somaliland (2009 – 2012)

Summary result of group discussions
Hargeisa LUP Workshop (3-5 Feb 2009)

Harmonize policies and laws related to land use	Activities:
	Objectives:
	Stakeholders:
	Initiative:
Land Use Planning Task Force	Activities:
	Objective:
	Initiative:
Create awareness	Activities:
	Objectives:
	Stakeholders:
	Initiative:

cont

Data collection	Activities: <ul style="list-style-type: none"> • Research, survey, data collection on LUP • Create database on different aspects: land use, land suitability, LD, water, landform • Undertake LR survey for regions not covered by SWALIM sofar
	Objectives: Identify suitable land for various purposes
	Stakeholders: Government, UN, INGO, LNGO. Community (elders, religious groups, woman groups, etc.)
	Initiative: Line Ministries, INGOs, SWALIM, Universities
Demarcation of land use zones	Activities: <ul style="list-style-type: none"> • Demarcation of zones for range, crop production, and other uses • Implementation of LUP • Field assessment regarding present status of range and rainfed areas • Identification of land use suitability and mapping • Determine land suitability for different uses • Assign different land uses to specific land units • Carry out LUP in three regions (Awdal, Togdher, Marodijeh)
	Objective: <ul style="list-style-type: none"> • To obtain adequate information for Land Use Planning • Identify land suitability
	Stakeholders: Pastoralists, farmers, line ministries, civil society, INGOs, NGOs
	Initiative: Relevant Ministries, Houses of Parliament, Task Force
Capacity Building	Activities: <ul style="list-style-type: none"> • Build capacity of the relevant ministries on LUP (human resource information systems, technical skills) • Training nationals on their specific area; technical experts; database on LUP; funds to run activities
	Objectives: Enable relevant ministries to deliver services on land use effectively
	Stakeholders: Communities, Ministries, UN, INGO, Civil society, local authorities
	Initiative: Ministries, UN, INGOs

Annex 5: Projects adopting “Participatory Land Use Management”; examples from Tanzania (NLUPC, 1998)

Various projects dealing with natural resource management in a rather sectoral manner during early stages, have adopted the participatory village land use management approach in order to facilitate co-ordination of sectoral efforts.

The Handeni Agroforestry Project started in 1992 with an orientation phase, aiming at developing an agroforestry concept to be integrated in the extension approaches and to test it in four pilot villages in Handeni District. Based on that experience, the project extended its scope during its second phase (1994 - 1997) to:

- Further develop the agroforestry concept and to introduce it in more villages;
- Develop the concept of participatory land use planning as the main tool to address land use conflicts and to plan the sustainable use of the available resources. This concept was introduced in 13 villages and resulted in the final establishment of 4 land use plans.

In its third phase (1998 - 2000) the project aims to extend its scope to:

- Facilitate appraisals in 52 villages;
- Introduce participatory village land use planning as a basis for all activities carried out jointly by the villagers and the project;
- Support co-ordination of all actors (sectors) active in natural resource management and community mobilization.

The Tanzania Forestry Action Plan - North Pare Project started in 1992 with a focus on participatory forest management in the North Pare Mountains of Mwanga District. With the help of a three-dimensional village model, villagers were encouraged to identify areas for village afforestation or village forests which require appropriate management techniques. The scope of the project has been widened and for its third phase (1998 - 2002) it has been recommended that:

- The development and implementation of participatory village land management is supported;
- The introduction and implementation of Joint Forest Management of territorial and local authority (catchment) forest reserves is supported;
- The capacity at District, Divisional and Ward level to fulfil steering and management tasks required to support communities is strengthened.

The environmental conservation (Hifadhi ya Mazingira) project operating in Iringa Rural District started in 1990 with the focus on soil and water conservation as part of land husbandry and farming systems. The project expanded its activities to 40 villages in 1997, and applies participatory village land use planning after having experienced that the adoption of proper land husbandry practices depends much on this planning process.

The Natural Resources Management and Bufferzone Development Programme initiated the provisional establishment of Wildlife Management Areas in 60 villages which border Selous Game Reserve, Serengeti National Park and Ruaha National Park. This is in accordance with the new wildlife policy of 1998 which puts much emphasis on community based conservation. These wildlife areas are regarded as village reserves, exclusively set aside for the benefit of the people and the wildlife, whereby village institutions are given responsibility for its management and protection.

Also in this sector, there is an increasing interest to integrate the planning and management of wildlife areas with that of other land uses in the villages through participatory village land use management. This will enable balanced development. Wildlife may affect, through its mobile nature, other land uses the village, while villagers depend on other land uses (such as for agriculture and settlement). As a result, some of the villages involved in the bufferzone

programme are revisiting their plans to integrate wildlife management with that of other natural resources.

The Dodoma Land Use Management Project was started in 1992 to develop a methodology for participatory village land use management that addresses the needs of the rural population in Tanzania better than those which are currently used. Also this project tended to be rather sectoral during its first phase and during the second phase, the project focused more on the integrated concept of land resource management. Experiences show that efforts to deal with settlement issues, to minimize land conflicts and to improve land security become more effective when they are integrated with other aspects of land management.