

The community-managed Guassa Area Menz



General Management Plan

2007-2012

***The Purpose of the community-managed Guassa Area is:
To conserve in perpetuity the biodiversity, natural resources
and water catchments of the Guassa Area in conjunction with
the community-based sustainable natural resource
management system, thus supporting the local and regional
economy and sustainable rural development***

Compiled and edited, with the support of the Amhara National Regional State, by Frankfurt Zoological Society. Financial and technical support for the planning process and plan production was provided by the Frankfurt Zoological Society, the Darwin Initiative, and the Ethiopian Wolf Conservation Programme.



Foreword

Approval page

Executive Summary

This General Management Plan (GMP) for the community-managed Guassa Area of Menz in Amhara National Regional State, lays out a vision for the development and management of this Afroalpine area over the next 5 years and outlines specific actions required to fulfil this vision over the next 3 years. During this period the Guassa Area should become a legally recognised conservation area, the Guassa Community Conservation Area, that is self-managed by the user community, supported where necessary by government agencies and partners.

The Guassa Area is home both to important Afroalpine biodiversity including many endemic and rare species and is part of the Conservation International's Ethiopian Highland Biodiversity Hotspot and an Endemic Bird Area. The natural resources of the area are also vitally important for the livelihoods of the local communities and were traditionally managed by an indigenous common property resource system, until it broke down under socio-political reforms and degradation of the area resulted. A modern version of the system has been reinstated, but the area is under threat from development initiatives and intrinsic and extrinsic human population growth. Thus the communities and other stakeholders identified that developing a plan for the future of the area was important.

This GMP was developed using a participatory process, building on previously summarised background information and stakeholder workshops and meetings.

The GMP is organised into three management programmes, using a logical framework approach, which group together common topics. Each programme consists of a 5-year strategy with objectives that provide the vision for the programme as well as specific objectives and general actions that outline the route and milestones by which the programme purpose will be achieved.

A practical, management-orientated 3-year action plan accompanies each management programme and provides the detailed actions and activities by which the strategy will be achieved over the next 3 years. This action plan is designed to be regularly rolled forward and supplemented in 2-3 years time. Annual activity plans for stakeholders can be developed from the 3-year action plans.

Guassa Area Purpose, Significance and Values

The Purpose of the community-managed Guassa Area is:

To conserve in perpetuity the biodiversity, natural resources and water catchments of the Guassa Area in conjunction with the community-based sustainable natural resource management system, thus supporting the local and regional economy and sustainable rural development.

The most important Exceptional Resource Values (ERVs), which together give the areas its conservation significance, are the rare, endemic and endangered species which are found across all taxa and habitat types, and the cultural and economic benefits to local and downstream users. The Afroalpine habitat and escarpment provide both scenic and natural values, being home to the endangered Ethiopian wolf, the endemic gelada baboon, the world's largest concentration of Ankober serin and spot-breasted plovers. The common property natural resource management system is one of the oldest known in Africa and the natural resources of the area provide essential ecosystem goods and services to local communities, including fodder, fuel, building materials. The Guassa grass is viewed by the community as "our cloth, bread and butter"

Management Programmes

Three management programmes, addressing logically grouped issues were developed:

- 1. Guassa Community Conservation Area Establishment and Operations**
- 2. Sustainable Natural Resource Management**
- 3. Community Outreach and Sustainable Development**

Guassa Community Conservation Area Establishment and Operations Programme

This programme seeks to develop the structures and mechanisms that are required to ensure that the Guassa Area is legally protected in Ethiopian legislation and can efficiently and transparently manage and protect the resources of the area. This required the Guassa Area boundary to be agreed with all stakeholders, particularly those that claim user rights to the area, and then this boundary to be demarcated on the ground. The description of the boundary will then for the basis for legal gazettelement by the Regional Administration. Bye-laws governing the management and use of the area have been drafted but required strengthened support at all levels to ensure they are evenly enacted and enforced. A Board, legally recognised as a community based organisation, is required to be the highest decision-making power for the area and responsible for all management decisions. This board will need support and capacity building to operate and raise and manage funds for the area in the future. A community scout resource protection system has been initiated, but needs strengthening for improved operations, with better equipment and training a particular priority.

Ecological and Sustainable Natural Resource Management Programme

This programme seeks to maintain ecosystem health by reducing human-associated threats and ensuring that the indigenous natural resource management system is strengthened and sustainable. Ecosystem monitoring, by providing information on the state of the exceptional resource values of the Guassa Area will be a key part of the adaptive management of the area and therefore of this programme. An adapted ecological management and monitoring approach has been used where technical experts have identified six Principal Ecosystem Components (PECs), that together capture the unique biodiversity of the GA. If all these PECs are conserved, then the long-term health of the ecosystem should remain intact.

The Ecological Management programme has identified and prioritised the threats to these PECs and has devised strategies for their reduction or mitigation. The major cross-cutting threat of overexploitation of natural resources will be addressed by actions that strengthen the communal natural resource management system and empowering the community to regulate, monitor and ensure the sustainability of harvesting Guassa *Festuca* grass and fuelwood and the amount and seasonality of livestock grazing. In addition, the process required to maintain healthy wildlife populations and to restore degraded habitat are laid out, if necessary. Finally, this programme also provides the framework for management orientated monitoring and research of the PECs, their key ecological attributes and threats - a crucial stage in adaptive management, though an integrated community-run and more scientific system, that should be both simple but sufficiently extensive.

Outreach and Sustainable Development Programme

This programme aims to generate a positive flow of benefits from the GA– including information, ideas, education opportunities, the facilitation of development initiatives and, where possible, revenue. This will be achieved in a number of ways. First, improving the local and regional awareness and understanding of the importance of the area should strengthen the sense of ownership locally. This will be carried out through a programme that increases awareness in all sectors of the Guassa community, including school environmental clubs, but also by producing and disseminating promotional material regionally and nationally. Second, pressure on the natural resources of the area will be reduced through facilitating the diversification of local livelihoods. In particular ecotourism development will be supported, but only in an environmentally and culturally appropriate fashion. The Guassa Community's ability to be involved in tourism development must

Guassa Area General Management Plan

be increase through awareness training, skills development and support in setting up community tourism initiatives. Visitor access will be increased through improved publicity, developing visitor facilities, including campsites and huts, partnerships with private investors and supporting community service providers. A system for visitor management must also be developed that includes improving the provision of information for tourists, administration systems and the development of codes on conduct.

Finally, pressure on the areas natural resources will also be reduced through the facilitation of conservation-compatible sustainable development and agricultural practices. These include household and community fuelwood initiatives, alternative livestock fodder systems, the production of domestic Guassa grass and promotion of more diverse but sustainable agricultural activities.

General Management Plan Monitoring and Evaluation

A GMP monitoring plan makes up the final section of the GMP and, in addition to assessing whether the GMP has been successfully implemented, it is a key component of adaptive management. This is integrated with the GEF Protected Area Systems Project that is commencing in Ethiopia in 2007, by using a WB/WWF Management Effectiveness Tracking Tool.

Acronyms

AAU	Addis Ababa University
ANRS	Amhara National Regional State
ARARI	Amhara Regional Agricultural Research Institute
BMNP	Bale Mountains National Park
CBD	Convention on Biological Diversity
CBM	Community-based Monitoring
CBNRM	Community-based Natural Resource Management
CBO	Community-based Organisation
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna & Flora
DI	Darwin Initiatives (United Kingdom)
EIA	Environmental Impact Assessment
ERV	Exceptional Resource Value
E&SNRM	Ecological and Sustainable Natural Resource Management
ETB	Ethiopian birr
ETC	Ethiopian Tourism Commission
EU	European Union
EWCP	Ethiopian Wolf Conservation Programme
EWNHS	Ethiopian Wildlife and Natural History Society
FDRE	Federal Democratic Republic of Ethiopia
EPLAUA	Environmental Protection, Land Use and Land Administration Authority
FZS	Frankfurt Zoological Society
FZS-AECP	Frankfurt Zoological Society's Afroalpine Ecosystems Conservation Project
GA	Guassa Area
GCCA	Guassa Community Conservation Area
GEF	Global Environment Facility
GIS	Geographic Information System
GMP	General Management Plan
GoE	Government of Ethiopia
HWC	Human-wildlife Conflict
IUCN	World Conservation Union
KEA	Key Ecological Attribute
LFA	Logical Framework Approach
MDG	Millennium Development Goals
METT	Management Effectiveness Tracking Tool
MoARD	Ministry of Agriculture and Rural Development
MoCT	Ministry of Culture and Tourism
MoFED	Ministry of Finance and Economic Development
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Governmental Organisation
NRM	Natural Resource Management
O&SD	Outreach and Sustainable Development
PA	Protected Area
PASP	Protected Area System Plan
PaDPA	Parks Development and Protection Authority
PEC	Principal Ecosystem Component
SNRM	Sustainable Natural Resource Management
SNRMA	Sustainable Natural Resource Management Agreement
TNC	The Nature Conservancy
TPC	Thresholds of Potential Concern
WCD	Wildlife Conservation Department (MoARD)

Table of Contents

Foreword.....	iii
Approval page.....	v
Executive Summary	vii
Guassa Area Purpose, Significance and Values	vii
Management Programmes	viii
General Management Plan Monitoring and Evaluation	ix
Acronyms	x
Table of Contents.....	1
Plan Introduction	1
1.1: Background Context.....	1
1.2: Function and Structure of the GMP.....	1
1.3: The Planning Process	2
1.4: Information for Planning	3
The Guassa Area Purpose, Significance, and Values	4
2.1: The community-managed Guassa Area Purpose	4
2.2: The Guassa Area Significance and Exceptional Resource Values.....	4
Description of the Guassa Area.....	4
Significance and Exceptional Resource Values	5
Natural Values	6
Scenic Values	7
Cultural Values	7
Socio-Economic Values of the Guassa Area.....	7
2.3: Zoning	8
GCCA Establishment and Operations Programme.....	9
Objective 1: The Guassa Community Conservation Area legally recognised and gazetted	10
Specific objective 1.1: The Guassa Area boundary agreed and demarcated with local communities.....	10
Specific objective 1.2: The Guassa Community Conservation Area recognised and gazetted as a legally viable community-managed conservation area.	11
Objective 2: The GCCA effectively managed by an elected board and community scouts	11
Specific objective 2.1: Guassa Community Conservation Area Board established and functional	12
Specific objective 2.2: Community scout patrolling and management system established ...	12
Ecological and Sustainable Natural Resource Management Programme	14
4.1: Guassa Area Ecosystem Components	14
4.2: Guassa Area Threats.....	15
4.3: Ecological and Sustainable Natural Resource Management Programme 5-Year Objectives	18
Objective 1: Communal and traditional sustainable natural resource management of the Guassa Area strengthened	18
Specific objective 1.1: Grass extraction regulated, monitored and sustainability ensured	18
Specific objective 1.2: Sustainable fuelwood management system implemented.....	19
Specific objective 1.3: Sustainable grazing management system implemented.....	19
Objective 2: Threats to the long-term conservation and ecological viability of the Guassa Area mitigated	20
Specific objective 2.1: Degraded habitat restored where necessary	20
Specific objective 2.2: Healthy wildlife populations maintained	21

Objective 3: Regular management-orientated monitoring and assessment of key ecosystem values, processes and threats strengthened	22
Outreach and Sustainable Development Programme	24
Objective 1: Awareness creation, environmental education activities and the sense of ownership strengthened.....	24
Objective 2: Ecotourism developed through culturally and environmentally appropriate initiatives	25
Specific objective 2.1: Guassa Communities' capacity to be involved in tourism development increased	26
Specific objective 2.2: Visitor facilities and services developed and diversified	26
Specific objective 2.3: Visitor management system established and enhanced.....	28
Objective 3: Conservation-compatible sustainable development initiatives facilitated.....	28
3-year Action Plan.....	30
Appendix A: Ecological Monitoring Plan	41
Appendix B: Participants in Planning	46
Appendix C: Research Priorities	47
Appendix D: Guassa Area Bibliography.....	48

1

Plan Introduction

1.1: Background Context

The Guassa Area of Menz of the Amhara National Regional State (ANRS), in the central highlands of Ethiopia, is of critical importance for both biodiversity conservation and poverty alleviation and is also home to an ancient common property resource management system. This 100 km² area is an important component of the Afroalpine habitat of Ethiopia (3200 to 3700m *asl*), falling within Conservation International (CI) Biodiversity 'Hotspot' of the Ethiopian Highlands. There are high levels of endemism and important populations of endangered and rare species such as the Ethiopian wolf, gelada baboon and Ankober Serin.

The area is also vitally important for the livelihoods of local communities who harvest Guassa grass and graze their livestock. The grass is most important as a thatching material, being used for 96% of the houses in the area. The grass is particularly important for the lowest economic group of the community as a cash crop and therefore a coping mechanism, during severe drought seasons. The area is also a refuge for the entire Menz livestock herd during severe droughts.

For 400 years, the area had a well-defined and ancient indigenous common property resource management system, the Qero system which tried to fairly distribute and protect the resources through enacting and enforcing byelaws. The Qero system could close the Guassa Area for community resource use for as long as five years. The length of closure largely depended upon the growth and recovery of the grass, community requirements for resources, success of the local crop harvest and on the frequency of drought in the Guassa Area. When this management system was effective, it benefited both the community whose livelihoods were intricately associated with this Afroalpine area and also the rare and endangered biodiversity.

This Qero System in Menz was suspended following the 1975 Agrarian Reform, as land ownership was transformed from communal tenure into the state or public land tenure. The state of the natural resources declines as a result, as the area was essentially treated as an open access resource. Livestock grazing continued all year and grass cutting intensified and was uncontrolled until the grass became too short to be of use. In recent years, with support from the Darwin Initiative, and the FZS Afroalpine Ecosystem Conservation Project, the community re-formed a conservation management group and agreed to reinstate the traditional management system, commencing with a 3-year moratorium on natural resource use. Day to day management of the area and supervision of the community scouts is conducted by the Guassa Committee, comprising 5 representatives from each of the 9 kebeles with rightful users. More recently a Guassa Woreda Committee has been formed as the highest authority, consisting of a representative from the woreda administration, judiciary, police, agriculture, environmental protection agency, militia and security offices, as well as the representatives from each Kebele Guassa Committee. The communities have however, realised that a vision and strategy was required to guide future the management of the area. As a result, a process of discussion and planning for the future of the area commenced, with support from local government, the Parks Development and Protection Authority (PaDPA) of ANRS, non-governmental organisations and donors.

1.2: Function and Structure of the GMP

The primary purpose of this GMP is to lay out the vision and philosophy for the 5-year development and management of what will hopefully become the Guassa Community Conservation Area (GCCA), but currently known as the Guassa Area (GA). In addition, it outlines strategies by which the vision can be achieved, with more detailed action points that should be followed. This GMP can also be used to provide donors with the management framework, priorities and input requirements

for supporting the GCCA and can also be used to coordinating efforts between partner organisations.

This GMP has adopted the “Logical Framework Approach”, therefore ensuring explicit and logical linkages between all components of the GMP. This provides an efficient, accountable and logical rationale for planning and facilitates GMP implementation, monitoring and evaluation. Until recently, general management plans typically adopted 10-year planning horizons. However in this case, the structures and capacity available for the management of the Guassa Area may change as this GMP is implemented particularly if formal legal establishment of a community managed conservation area (*i.e.* the GCCA) is achieved in the first years. In addition, as the community gains capacity in conservation management, and achieves legal recognition, their ability and potential to internally manage and also obtain external support, could change rapidly. For this reason a 5-year planning scheme has been laid out, so that a revised management plan can be drawn up in the changing socio-political context. Detailed activities are laid out for only 3 years, so that flexibility and responsiveness to changing needs and situations can be attained.

The GMP is structured by management programmes that break down overall management into coherent and linked themes. Each management programme follows the Logical Framework Approach adopted throughout the GMP. The community-managed GA General Management Plan has been divided in to three management programmes as follows, with the areas of responsibility and development listed.

The three management programmes for the community-managed Guassa Area are:

- **Guassa Community Conservation Area Establishment and Operations**

- Legal establishment of community-managed conservation area

- Establishment of conservation management and resource protection systems

- **Ecological and Sustainable Natural Resource Management**

- Strengthening community-run sustainable natural resource management

- Mitigation of threats to the ecosystem

- Monitoring and assessment of ecosystem health

- **Community Outreach and Sustainable Development**

- Awareness creation and environmental education

- Development of culturally and environmentally appropriate tourism development

- Sustainable development that reduces pressure on natural resources

In addition 3-year action plans have been developed for each management programme (Section 6). These plans provide a clear and consolidated summary of the Management Actions to be carried out under this GMP with more detailed activities that lay out the steps that need to be achieved to fulfil the action. In addition, guidance on the inputs that are required, the priority assigned to each action and the timeframe on which they should occur is explained for each management programme.

1.3: The Planning Process

The need for a general management plan was highlighted during the workshop held to discuss the future of the Guassa are following the termination of the Guassa Biodiversity Research Project funded by the Darwin Initiative and managed by the Zoological Society of London in March 1999. At

this workshop for the first time, a complete inventory of the resource and a study on the community management of the Guassa area was presented. Participants drawn from federal, regional as well as from international conservation organisations highlighted the importance of conserving the Guassa area and recommended the continuation of the community-based conservation activity. On another meeting held at Mehal Meda the mandate for the preparation of a management plan for the Guassa Area was given to the Ethiopian Wolf Conservation Programme (EWCP) by a Guassa stakeholder workshop run by the Darwin Initiative in October 2004. A preliminary draft of the management plan was prepared by EWCP in 2004 and 2005, under a Darwin Initiative Scholarship to Dr Zelealem Tefera and was presented for stakeholders for discussion. A document that summarises the background information on the area was also produced. The EWCP mandate was handed over to the Frankfurt Zoological Society's Afroalpine Ecosystem Project in 2005. A series of workshops and consultations took place afterwards between the Guassa user community, the regional natural resource management bureaux and the project, which reviewed and revised the concerns raised among the user community during different workshops and meetings. A final draft plan was presented to the stakeholders' consultation meeting held at Mehal Meda in August 2006. Participants drawn from the Regional Agriculture and Rural Development Bureau, Environmental Protection, Land Administration and Land Use Authority (EPLAUA), Park Development and Protection Authority (PaDPA) and Woreda Administration Council, Police, Judiciary, Agriculture and Rural Development office as well as committee members has attended this consultation meetings. (For members of planning team and offices involved see appendix B).

1.4: Information for Planning

A resource inventory was compiled and summarised as a sister document to this General Management Plan, as a basis for management plan preparation (Tefera, 2007). Past research in the area predominantly examined either the communal natural resource management system, or the biodiversity of the area (Ersado & Abune 1993; Silero-Zubiri 1995; Tefera, 1995; Tefera & Gebreyesus Tenagashaw 1998; Tefera *et al.*, 1999; Tefera, 2001; Tefera *et al.*, 2005; Tefera and Leader-Williams, 2005). An extensive inventory of habitat types, mammals, birds and to some extent the herpetofauna of the area has been drawn up, along with information on the physical resources of the area, *i.e.* geology, soil, climate and humidity. In addition, the history of the indigenous common property resource management system in Guassa has been documented and information on the attitude of the community towards this system, and to wildlife and biodiversity, as well as the current common property natural resource use pattern, collected. Maps have also been produced and are included as appropriate.

2

The Guassa Area Purpose, Significance, and Values

2.1: The community-managed Guassa Area Purpose

The community-managed GA purpose statement is formulated from the exceptional resource values of the area (see below), its importance for the economy of the area and historical considerations. This purpose statement provides the present-day rationale as to why the area is considered important enough to merit conservation status and for focusing the ongoing management of the area.

***The community-managed Guassa Area Purpose is:
To conserve in perpetuity the biodiversity, natural resources and water catchments of the Guassa Area in conjunction with the community-based sustainable natural resource management system, thus supporting the local and regional economy and sustainable rural development***

Supplementary and complementary purposes of Guassa Area are:

- ***To empower and support communities to enable them to implement effective and sustainable natural resource management***
- ***To stop environmental degradation and over-exploitation of natural resource management***
- ***To promote ecotourism and livelihood diversification in communities managing and using the Guassa Area***
- ***To promote the equitable sharing of benefits derived from the natural resources of the Guassa Area***
- ***To support environmental education and research on the Afroalpine ecosystems of Ethiopia***

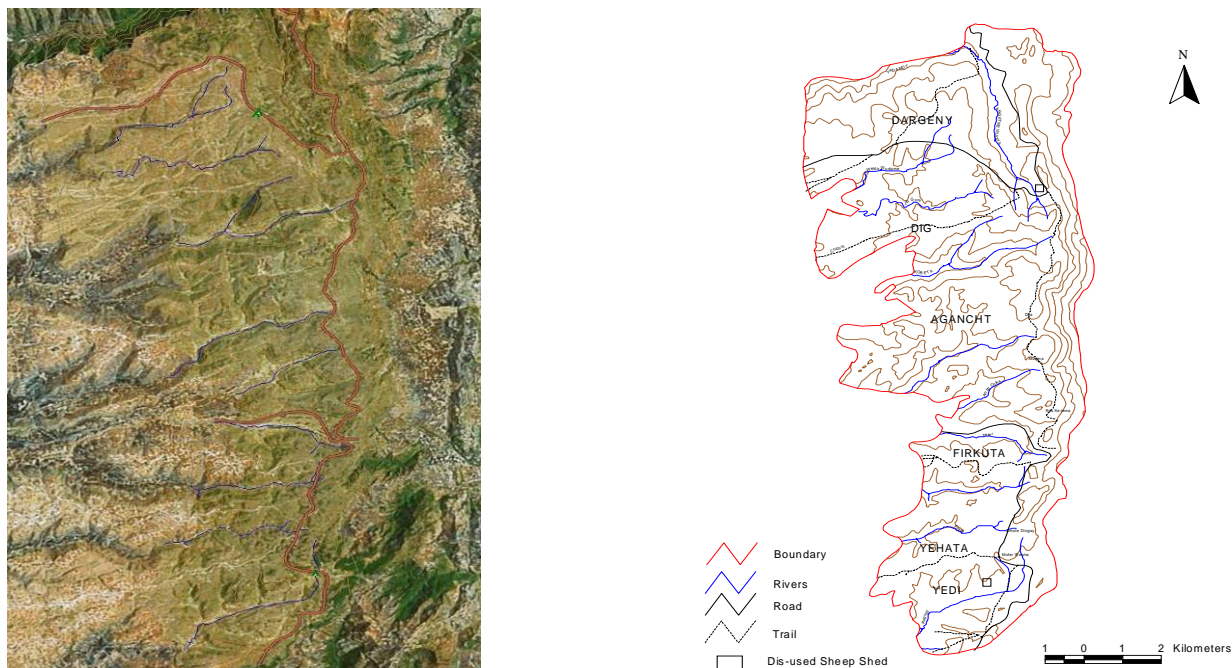
2.2: The Guassa Area Significance and Exceptional Resource Values

Description of the Guassa Area

The Guassa Area in the Central Highlands of Ethiopia, is an area of Afroalpine habitat running along part of the western edge of the Great Rift Valley. Its altitude ranges from 3200 to 3700m asl and has a total area of 100 km². The area is rugged and its plateau is cross-cut by various gorges and river valleys that flow westwards. The eastern part consists of abrupt cliffs that form the Great Rift Valley and there are sharp elevation changes within a short distance. The eastern escarpment drops in altitude from 3600m asl to 1000m asl within a distance of 50 km and a further 50 km

stretch leads to the Awash plain (500m asl) forming the floor of the Great Rift Valley. The west of the Guassa falls away steadily towards Mehal Meda (3000m asl). The Guassa Area has been traditionally used by the residents of the nine farmers' associations or kebeles nearby: Dargegne, Tesfomentir, Gragen, Gedenbo, Kuledaha, Kewla, Chare, Yedi and Qwangua.

The high altitude of the area means that mild day temperatures and cold night temperatures are commonplace with daytime temperature rising up to 26°C in the driest months and night temperatures dropping to -10°C. The diurnal temperature variation is lower in the wet season with a daytime temperature of 12°C and night temperatures of 3°C.



The vegetation of the Guassa Area is characterised by high altitude Afroalpine vegetation, within which different vegetation communities exist. *Festuca* grassland (Guassa grassland) occurs where the drainage is good and the soil is deep. It grows on steep to moderately steep slopes up to an altitude of 3500m asl. *Euryops-Alchemilla* shrubland occurs on flat and gentle slopes and well drained areas, and is restricted to areas above 3200m asl. *Helichrysum-Festuca* grassland is found on high ground and hill tops where the soil is poor. *Erica* moorland is commonly found on higher ground areas with shallow and well-drained soil.

The Guassa Area forms one of the most important watershed for the Abye (Blue Nile) and the Awash basins. Twenty six small and medium sized rivers start from the Guassa Area flowing to the west and east side of the mountain block. The swamps of the area provide water holding capacity and also limit runoff in the rainy season, thus providing flow all year round

Significance and Exceptional Resource Values

The Guassa Area of Menz is one of the highest ranges in the Central Highlands. The traditional indigenous management of the area's natural resources has helped the survival of various species of endemic fauna and flora that are locally extinct in similar parts of the country. For example, Ethiopian wolves recently became locally extinct from the Kundi and Goshe Meda areas nearby. This extirpation was due primarily to habitat destruction as a result of increased demand for farmland and the expansion of plantation forestry.

The significance of the Guassa Area can be summarised by examining its Exceptional Resource Values (ERVs) which are the biophysical features of the area that are particularly important for maintaining its unique ecological character, processes and functions. These ERVs provide outstanding benefits (environmental, social, economic, and aesthetic) to local, national and international stakeholders. The identification of these ERVs for the Guassa Area provides a foundation for formulating the Guassa Area's 'Purpose Statement', identifying the areas management problems and opportunities and the development of the General Management Plan (GMP) management objectives.

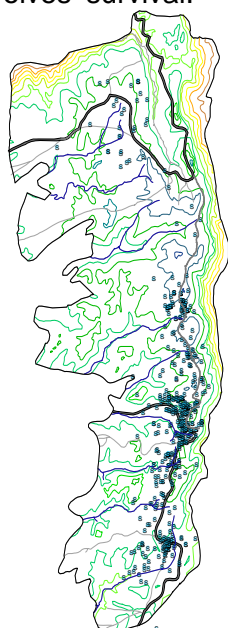
Natural Values

The Afroalpine moorland

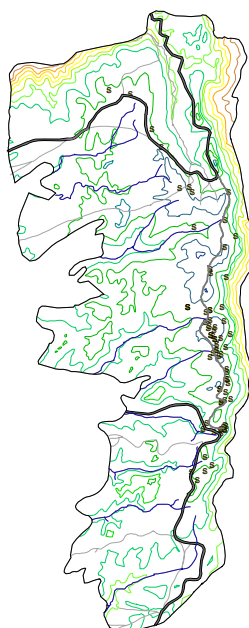
Afroalpine habitat is generally found at altitudes over 3200m asl in Africa and consists of grasslands, shrublands and moorlands. In Ethiopia, only 2% of the total land area is Afroalpine habitat, but this comprises 80% of land above 3000m asl in the Afrotropical realm. Split into northern and southern massifs, these highlands were formed by turbulent volcanic forces that ceased only 4 to 5 million years ago. At the end of the last Ice Age, some 20,000 years ago, montane species were restricted to higher altitudes by the warming climate. High levels of endemism are found here and the region's biota demonstrates evolutionary links to both the Palaeartic and the Afrotropical realms. The vegetation, known as "wurch" to Ethiopians, consists of grassland and moorland with abundant herbs. Most plant species (many of which are endemic) show adaptations to the extreme conditions found at high altitudes. The Simien and Bale Mountains National Parks protect, at least on paper, the largest areas of Afroalpine habitat in all Africa. Although small, the Guassa Area constitutes one of the largest Afroalpine areas outside Ethiopia's protected area system.

Rare and Endemic Species

A number of endemic and range restricted species of mammals and birds are found in this unique habitat type in the Guassa Area. The area is important for the world's most endangered canid, the Ethiopian wolf (*Canis simensis*). The world population of the Ethiopian wolf is currently estimated to be less than 500 individuals, distributed in 7 isolated mountain tops of the Ethiopian highlands. Some 25 animals are resident in the Guassa Area in 4-5 packs. Ethiopian wolves are social and territorial animals, living in cohesive units of up to 12 adults. Rodents comprise the majority of the wolves' diet, and thus the rodent community of the GA is a key natural resource. Aside from habitat loss, domestic dogs and their associated diseases such as rabies, are the most immediate threat to wolves' survival.



• Distribution of Ethiopian Wolf



• Distribution of Gelada Baboon

The other important endemic species of the Guassa Area is the gelada baboon (*Theropithecus gelada*), the only surviving member of the genus. Geladas are graminivorous, feeding on fresh grass shoots, as well as roots and seeds. The current distribution of the gelada is mainly limited to the steep escarpments and gorges of the north-western highlands of Ethiopia, although a population has been newly recorded in the south-east Highlands (Gurja Belay 2006). The only population of Gelada baboon within a protected area is in the Simien Mountains National Park. Elsewhere, gelada are sometimes killed by humans due to alleged crop raiding or for traditional head dresses or captured for the local pet trade. With the species now listed as threatened by IUCN, the Guassa Area provides another safe haven for the species in Ethiopia.

The Guassa Area is also home to the world's largest concentration of the Ankober serin and the spot-breasted plover (EWNHS, 1996). The protection of the area is therefore paramount for resident endemic birds as well as for migratory species of birds wintering in the highlands of Ethiopia. Five other bird species found in the area are listed as near-threatened and two species as vulnerable.

Scenic Values

The Escarpment

The Guassa Area is found on the edge of the Great Rift Valley that divides the Ethiopian highlands into two major topographic features. The escarpment on the eastern side of the Guassa Area forms a continuous north-south wall, with sheer cliffs over 1km long. This dramatic cliff formation has provided the area with spectacular scenic beauty and stunning views across the lowland areas of Yifat and the Great Rift Valley, up to the Awash Valley in the Afar Region.

Cultural Values

The ancient common property resource management system prevailing in the Guassa Area is one of the oldest natural resource management systems in Africa (see Ashenafi & Leader-Williams, 2005, Tefera, 2007). This system, unique in Ethiopia has allowed the survival of the afroalpine area with its endemic and rare species of plants and animals.

Other important cultural features are the churches and homesteads of the Menz people which are of particular interest even in the national context. In Yigem the Arbhara Medhianialem Church, 10 km south of Guassa, there is an old intact mummy. Various churches in the area have old and extremely valuable artefacts, which are of interest to tourists.

Socio-Economic Values of the Guassa Area

The Guassa Area is the critical natural resource for the people of Menz, providing

- Essential ecosystem goods such as fodder, fuel, building materials, farming and household implements for subsistence purposes;
- An element of livelihood stability, through diversification of livelihood options;
- Independence from the market and government, through self-reliance and the availability of many goods and services locally; and,
- A variety of products that can be bartered and sold in markets and thus cash income.

The main uses of the Guassa Area are fully described elsewhere (see Ashenafi, 2001, Ashenafi & Leader-Williams), but are the collection of Guassa grass and firewood and grazing of livestock. Guassa grass is used to thatch 98% of houses in the area (Kuachera grass) and also for plaster in houses (Naso grass), after being mixed with mud. Grass is also used to make ropes, household equipment, baskets, painting brushes, mattresses and shepherds' raincoats.

The Guassa Area also provides a prime grazing area for the Menz livestock population, a key economic activity, being the second largest area of communal grazing locally. Fuelwood is another key resource with Cherenfi (*Euryops pinifolius etc.*) Asta (*Erica arboria*), Gibera (*Lobelia rynchopetalum*), Ameja (*Hypericum revolutum*), and Abelbila (*Kniphofia foliosa*) all being collected. Collection usually takes place in the dry season and a large volume is required due to its low calorific value. Cattle dung is frequently burnt concurrently.

Medicinal plants are also widely collected from the Guassa Area to treat human and livestock diseases, with traditional knowledge passed down through families. Wild berries such as *Rubus abyssinicus* and *Rubus Stedneri* are also collected and thyme (*Thymus schimperi*) is used to make drinks and flavour food. The stinging nettles (*Urtica slimensis*) are used to prepare a stew during the fasting season.

In addition, the Guassa Area is a key water catchment area both locally and regionally. 26 rivers rising in the area drain into the Blue Nile and Awash Rivers. Thus the mountain block provides year-round water supplies. Downstream users in the low-lying areas of Yifat, Merhabeti and the Afar Region are dependant on this water for livestock and people. This ecosystem function is well recognised by the Guassa user groups.

2.3: Zoning

Zoning is a management tool that can be used to help meet different management objectives. Zoning can occur spatially or temporally. In the Guassa Area, spatial zoning is not currently necessary in the existing system of management, since the community with its indigenous management of the natural resources make use of the total area, with different resources extracted in different areas, according to their occurrence. Habitat where Guassa grass predominates are used for grass cutting and are very well protected in the closing season. Areas where Cherenfi predominates are used mainly for fuel wood, while the remaining areas are used for grazing. Thus exogenous zoning would not currently serve additional purpose.

However, temporal zoning in the form of seasonal open and closed periods is being used to control resource use with a ban on grazing and grass cutting has been in place since 2003. It is envisaged that the Guassa Conservation Committee will liaise with communities to determine open and closed seasons.

3

GCCA Establishment and Operations Programme

Programme Purpose: The Guassa Community Conservation Area established and secured through effective legislation, management and efficient resource protection

The Guassa Community Conservation Area Establishment and Operations (GCCA E&O) Programme seeks to develop the structures and mechanisms that are required to ensure that the Guassa Area is legally protected and managed under Regional and National legislation that is in line with the Regional and National Policy. The Guassa Area is under threat from a number of directions, including development and investment initiatives, agricultural expansion and uncontrolled grazing. In the past few years, a number of applications have been submitted to the regional investment office to turn the Guassa Area into a commercial sheep ranch. To date, environmental impact assessment (EIA) and lobbying by the local community have stopped any development in the area. In addition, farming has expanded at the edge of the Guassa Area, from all directions, due to human population growth, drought frequency, rural development activities and changes in rural land use policies at a national level. Moreover, uncontrolled grazing by livestock from distant villages has increased as has fuelwood and Guassa grass collection, which peaked during 2000 – 2001 drought. The community therefore believes there should be a stronger legal framework for the conservation of the Guassa Area that will provide additional protection and security to the Area and their traditional natural resource management system from both external and internal pressure.

Currently, there is no legally recognised conservation area in Ethiopia that is gazetted or otherwise recognised under federal or regional law except the Awash National park and Simen Mountains National Park. However, there are a number of forest areas that are jointly managed by communities and a forestry office of the government, particularly in the Oromia NRS. However, both the federal and national policy and legislation framework supports participatory natural resource management and community involvement in conservation areas. Under the Amhara Regional Rural Land Administration and Proclamation No. 46/2000 (Article 4, Sub-Section 14; , Nos. 3-4) the Guassa Area can continue being managed by the rightful owners of the area, the residents of the 9 Farmers' associations of Dargegne, Tesfomentir, Gragen Gedenbo, Qwangu, Kuledeha, Yedi and Kewla. This proclamation states that

“Communal lands can be managed and used by customary laws as long as they do not contradict the proclamation”

and,

“Protect trees, wild animals, swampy areas and other natural resource found on the common holding.”

Thus, clarifying the legal framework and establishing a legally-recognised conservation area in the Guassa Area, *i.e* the Guassa Community Conservation Area (GCCA), is a key objective for the next few years.

Although improved legal status would strengthen the Guassa Area's existence in law, this has to be translated into management activities on the ground to provide real security for the area and ensure the sustainable use of the natural resources. This requires a recognised management body to be formed that can manage local resource protection and implementation of legislation.

In order to achieve the vision of a legal, community-managed and protected area, the following two objectives have been drawn up for this programme that tackle the relevant threats issues, challenges and opportunities identified by community stakeholders.

The objectives are:

1. The Guassa Community Conservation Area **legally recognised** and gazetted
2. The GCCA effectively **managed and protected** by an elected board and community scouts

The objectives and associated actions are described below, along with a brief description of the challenge that provides the justification for the actions. Detailed actions and activities that are required to fulfil these objectives are included in the Action Plan in Section 6.

Objective 1: The Guassa Community Conservation Area legally recognised and gazetted

A number of steps need to be taken to improve the legal status of the Guassa Area and ensure it becomes a recognised Community Conservation Area. These include boundary agreement and demarcation, assignment of a communal ownership certificate to the user community, legislation drafting and then presentation of the relevant paperwork to the appropriate Regional and National bodies for their ratification.

Specific objective 1.1: The Guassa Area boundary agreed and demarcated with local communities

This enormous pressure on the Guassa Areas has been discussed at a number of farmer's conferences at Kebele level and various workshops at a Woreda level. These meetings have decided that the boundary of the Guassa Area should be clearly agreed and redemarcated so that there is no misunderstanding by local users.

Action 1.1.1: Determine Guassa Area boundary

Elderly representatives of the community, who had good knowledge of the boundary prior to 1975 have been selected from the nine farmers associations. In conjunction with the Guassa Committee (see below) and the Woreda Guassa Committee they are in a process of agreeing the boundaries of the Guassa Area with each kebele association that adjoins the area. This boundary group move from kebele to kebele, agreeing boundary sections and take GPS reading of their agreed route. This list of GPS points must be drawn up into a formal boundary description and then these will be used as the basis for gazettelement of the Guassa Area at a regional or national level.

Action 1.1.2: Demarcate Guassa Area boundary

Once the boundary is agreed, it must be demarcated along its length using a locally appropriate and environmentally suitable method, so that it is clearly visible and no misunderstandings can occur. Cairns or structures made from local materials, might be appropriate, or trees shrubs, that could be locally owned, maintained and used by each group of households..

Specific objective 1.2: The Guassa Community Conservation Area recognised and gazetted as a legally viable community-managed conservation area.

At present enactment of customary (bye-laws) laws underpin the management of the Guassa Area by the user communities. These bye-laws were drawn up in 2003 by the community user-groups. It then emerged that the agreed penalties were above the level that could be set by the local court, thus bye-laws were amended in 2006, with the consent of the representatives of user groups and each kebele. The customary law enforcement system uses the local courts (Mehaberawi Fird Bet) at a kebele level but in the case of repeated violations, cases are heard at the Woreda court. Bye-laws need to be checked and revised to deal with such discrepancies and avoid ambiguity with the collaboration of the Woreda judiciary, police and the prosecutor's office. Moreover, whilst the local police and judiciary have been supportive of existing initiatives, fines have been unevenly implemented, thus further consultation and awareness within those sectors are required for a consistency of approaches.

A firmer legal status for the areas could be achieved by issuing a certificate of recognition to the community to manage the area for the purposive of nature conservation and sustainable utilisation of the natural resources. This would be ratified by the concerned authority at regional level, the environmental protection and Land Administration and Land Use Authority. Following this the area should be gazetted by regional or federal government for its continued protection and to counteract the threat of competitive land use. The steps to achieve gazettement are laid out in the 3-year action plan below.

Action 1.2.1: Ensure community bye-laws are in line with existing policy and legislation

The process of establishing bye-laws has started as community representatives have prepared bye-laws. These have now to be ratified by the whole user group to be accepted as the overarching law for the protection of the Guassa Area. The Woreda judiciary and Woreda administration have the major role in ensuring the success of this initiative.

Action 1.2.2: Ensure police, judiciary and local government personnel are aware of bye-laws.

An awareness programme, involving workshops and discussions is required to ensure that all personnel involved in bye-law enactment are aware of the existence of the bye-laws, the wider legal framework and the penalties involved. This will also help ensure that penalties are evenly applied across different courts.

Action 1.2.3: Prepare and submit legislation for GCCA gazettement

The formal boundary description forms the basis of the draft law and gazettement document. The full gazettement process will be clarified with the Regional Authorities and appropriate documents will be prepared with the collaboration of the Woreda Administration and the Regional Parks' Authority, before submission to the Regional Administration for gazettement.

Objective 2: The GCCA effectively managed by an elected board and community scouts

The unique aspect of the Guassa Area in Ethiopian wildlife conservation is that it has been a community initiative from the outset and that the management system has successfully maintained the area until now. Currently day to day management of the area and supervision of the community scouts is conducted by the Guassa Committee, comprising 5 representatives from each of the 9 kebeles with rightful users. More recently a Guassa Woreda Committee has been formed as the highest authority, consisting of a representative from the woreda administration, judiciary, police,

agriculture, environmental protection agency, militia and security offices, as well as the representatives from each kebele.

However, for the area to make the transition to an autonomous and self-managing legal entity, an autonomous Guassa Community Conservation Area management body is required. This body, or Community Board, will be the top management for the protection and utilisation of the Guassa Area natural resources and also responsible for the day-to-day management and protection of the Guassa Area. It is felt that it should be elected by the communities who are using the area with representatives from local or other government. This body and will be required for full gazettelement and future fund-raising.

At the same time there is a need for law enforcement to ensure the fair and equitable sustainable use of resources. Resource protection and the body of community scouts needs strengthening in the area.

Specific objective 2.1: Guassa Community Conservation Area Board established and functional

The GCCA management body, most likely with joint management and guidance from the Woreda Administration, would be responsible for day-to-day management, fund raising and budgeting, investment and development in the area and would need to be a legally-recognised community-based organisation (CBO). The community have shown that they can manage the area and thus deserve full legal responsibility.

Action 2.1.1: Facilitate the establishment of the Guassa Community Conservation Area management body.

The legal requirements for the establishment of a GCCA management body must be established and, in collaboration with the Guassa Committee and Woreda Administration, the means of setting up a body ascertained. Formation of a management body and its legal recognition must then be achieved.

Action 2.1.2: Ensure the GCCA management body has the capacity to operate

Members of the GCCA management body may require further training in order to fulfil their responsibilities. For example, accounting, management, administrative skills may be required and good governance procedures understood. Training and capacity building will undoubtedly be required, once the body is formed and a capacity needs assessment carried out.

Action 2.1.3: Support GCCA management body operations as required

It is unlikely that an independent GCCA management body will be able to operate independently from the outset. Considerable support and mentoring from partners will be required in many aspects of its work. For example a key role of the body will be fund raising for management and development initiatives and support may be required in proposal preparation and then the reporting and financial management of projects. Currently the Guassa Community is eligible to apply for a UNDP GEF small grant (\$60,000), as a result of being nominated as a finalist for the UN Equatorial Prize in 2005. Further grants for community initiatives are available from a variety of sources both in Ethiopia and internationally but the body may need assistance in developing fundraising skills. Undoubtedly, until capacity and experience is gained, support for many aspects of the management body's responsibilities will be required.

Specific objective 2.2: Community scout patrolling and management system established

In the Guassa Area, grass cutting, fuelwood collection and livestock grazing must be controlled in the closed season to support the Actions described in the E&SNRM Programme. The existing system of patrolling by the militias from the adjacent Kebeles of Qwangu and Dargegne has not

worked efficiently, not least because the burden falls heavily on just 2-3 of the 9 user Kebeles and their human resources are insufficient to patrol the whole area. Thus patrolling must be carried out in a coordinated fashion by all Kebeles. In Dargegne, during a pilot scheme where a team of 5 community scouts were selected, the whole of the Kebele undertook all the activities and the community scouts were exempted from any type of communal work and others took over their farming responsibilities. Thus to ensure a functioning community resource protection system, the current system and scouts need to be assessed and adapted as appropriate. A full complement of scouts should be assigned and trained, a patrolling and operations system designed and implemented.

Action 2.2.1: Ensure appropriate community scouts selected

Community scouts will be elected by the user community. Their reputation and discipline is important and the community should consider these elements during the selection process. The scouts should be accustomed to traditional processes of conflict resolution in the community so that they have the experience to handle such situations when they arise. It is envisaged that 40 scouts (5 from each of 8 Kebeles) are required to effectively patrol the Guassa Area on a daily basis.

Action 2.2.2: Provide appropriate training for the community scouts

Training for scouts should include the principles of biodiversity conservation, species identification, policy and legislation, judicial procedures, policing and patrolling methods, conflict resolution, and basic ranger based wildlife monitoring and data collection techniques, as well as a range of other topics as required. Training should be provided by the conservation office of the Woreda Agriculture and Rural Development Office, the Environmental Protection Office; the Culture and Tourism Office and the police and judiciary as appropriate. Conservation and research projects working in the area could also contribute to training and empowering the community scouts to become an effective force for curbing illegal activities in the Guassa Area.

Action 2.2.3: Obtain patrolling equipment for scouts

Community scouts also need some basic equipment to carry out their duties, as climatic conditions are harsh due to high altitude and low night temperatures. Initially donations may be obtained for this equipment, but a sustainable means of replacing such equipment may need to be developed. In addition, schemes or incentives that build morale must be devised. The Guassa user community and Guassa management body need to consider this issue and devise an appropriate scheme for piloting.

Action 2.2.4: Devise and implement community scout patrolling and operations system

A patrol plan, that outlines frequency and location of patrols, reporting methods and potentially monitoring activities, must be devised and implemented for effective resource protection. As most of the illegal activities are now reportedly taking place at night, the patrolling plan must take into account the timing, and location of illegal activities. This scout operations system should include a reporting system and will also incorporate aspects of resource monitoring, as determined in the Ecological Monitoring Plan (Section 4).

4

Ecological and Sustainable Natural Resource Management Programme

Programme Purpose: The ecosystem health and community natural resource management system of the Guassa Area maintained and monitored

The primary purpose of the management of the Guassa Area is to conserve the biodiversity and natural resources of this area. This management programme is therefore fundamental and critical to the continued existence of the GA. In recent years, over-exploitation of the natural resources of the Guassa Area has been the major management issue and this must be addressed in this management plan, through a variety of strategies.

4.1: Guassa Area Ecosystem Components

This management programme seeks to ensure that the natural resource use of the Guassa Area is sustainable by supporting and strengthening the current indigenous management system and ensuring that it can be adaptive by providing feedback on the state of the natural resources and the overall ecosystem health. It is, however, impractical for the Guassa Area Management to either monitor or manage every component of the ecosystem. To provide a more realistic framework for this programme, a planning process based on the Nature Conservancy's (TNC) Conservation Action Planning, conservation targets, has been adopted. This involves the selection of "Priority Ecosystem Components" (PEC) for the Guassa Area (Table 4.1), which includes ecological systems, ecological communities and individual species. The criteria for selecting individual species include those that are of particular conservation importance or whose conservation would not be guaranteed by conservation of their habitat.

Together the Priority Ecosystem Components are intended to represent and encapsulate the unique biodiversity contained within the area. Focusing efforts on their conservation will also ensure the conservation of all co-occurring ecosystem components, and therefore the maintenance of a healthy ecosystem. The following PECs were selected by experts in the biology of the area.

Table 4.1: Guassa Priority Ecological Components Targets and Key Ecological Attributes

Priority Ecological Component	Level of ecological organisation	Key Ecological Attribute
Hydrological system (water catchment)	System	Water flow Water retention of vegetation and soil Wetland quality and dynamics

<i>Festuca</i> grassland	Community	Extent and fragmentation Vegetation composition and structure Indicator species diversity, distribution and abundance Wetlands quality and dynamics
<i>Euryops-Alchemila</i> shrubland	Community	Extent and fragmentation Vegetation composition and structure Rodent species diversity Other indicator species diversity, distribution and abundance
Rodent Community	Community	Species diversity Population size, structure and distribution
Ethiopian wolf	Species	Population size, structure and distribution Prey abundance Genetic diversity
Gelada baboon	Species	Population size, structure & distribution

Key Ecological Attributes (KEAs) are also listed for each Priority Ecosystem Component (Table 4.1). These are the factors that most clearly define or characterize each PEC. The KEAs include factors pertaining to the PEC’s biological composition, spatial distribution, biotic and abiotic interactions and ecological connectivity. The KEAs are sensitive to change and provide the basis for monitoring the overall health of their PEC.



Figure 4.1: Festuca Grassland



Figure 4.2 Festuca-Euryops grassland with Mima Mounds.

4.2: Guassa Area Threats

A threat, or pressure to the Guassa Area, is any factor, resulting directly or indirectly from human activities, that has the potential to destroy, degrade or impair a Priority Ecosystem Component in the next 10 years. Threats were identified for each PEC, although a degree of overlap is evident. High ranking threats will be monitored and also form the basis for management actions identified in this programme

During the threat analysis, several threats were identified as affecting more than one PEC. Pressure from livestock overgrazing by livestock, over harvesting of natural resources affect a number of PECs. Indeed in recent years, over-exploitation of the natural resources of the Guassa Area has been the major management issue and thus must be addressed in this management

plan. Prioritisation of these threats, based on their overall threat rank, guides the 3-year action plan for this programme and the ecological monitoring plan for the Guassa Area.

Table 4.2: Threats to the Guassa Area’s Priority Ecosystem Components

Priority Ecosystem Component	Threat	Ranking
Hydrological system (Water catchment)	Overgrazing, particularly in wetlands Unsustainable fuelwood and grass harvesting Agricultural expansion	High Medium Low
<i>Festuca</i> grassland	Unsustainable grass cutting Commercialization of grass extraction Overgrazing Global warming	High Medium Medium Low
<i>Euryops-Alchemila</i> shrubland	Unsustainable fuelwood harvesting Overgrazing Global warming	High High Low
Rodent community	Unsustainable fuelwood harvesting Overgrazing Persecution by humans Global warming	High Medium Low Low
Ethiopian wolf	Disease Small population and insularity e.g. genetic loss, demographic and environmental stochasticity Road kills Direct persecution/human conflict Hybridization Global warming	High High Medium Low Low Low
Gelada baboon	Overgrazing Grass cutting Direct persecutions/ human conflict Global warming Agriculture expansion	High Medium Medium Low Low

Table C3: Threats to BMNP Principal Ecosystem Components

	Hydrological system	<i>Festuca</i> grassland	<i>Euroyps-Alchemila</i> shrubland	Rodent community	Ethiopian wolf	Gelada baboon
Livestock overstocking						
Agricultural expansion						
Unsustainable grass harvesting						
Commercialisation of grass extraction						
Unsustainable fuelwood harvesting						
Global warming						
Persecution, poaching						
Disease						
Small populations and insularity, e.g. loss of genetic diversity, demographic and environmental stochasticity						
Road kills						
Hybridisation						

Threat Level Key

Threat level	Severe = 4	High = 3	Moderate = 2	Low = 1
a. Severity and permanence of degradation	Destroying or eliminating the PEC	Seriously degrading the PEC	Moderately degrading the PEC	Slightly impairing the PEC
b. Geographic extent	Very widespread	Widespread	Localised	Very localised
Overall threat level (a + b)	Severe (7 – 8)	High (5 – 6)	Moderate (3 – 4)	Low (1-2)

Hashed lines indicate that the status of the threat is unknown - research to understand and assess the severity of the threat should be undertaken.

4.3: Ecological and Sustainable Natural Resource Management Programme 5-Year Objectives

The natural resources of the Guassa Area must be used and managed by the Guassa Community in a sustainable manner so that the community have ownership and are benefiting from the area, yet the resources are conserved and ecosystem health is maintained. Three objectives have therefore been identified that together will meet this programme's purpose and thus contribute directly to the vision for the conservation of this area and its indigenous management system. It will ensure first, that the natural resources are used sustainably, second that efforts are made to reduce other human-associated threats, and third that the ecosystem and threats are monitored and generate information that is fed back for adaptive management of the area.

The 5-year objectives are:

1. Communal and traditional **sustainable natural resource management** of the Guassa Area strengthened
2. **Threats** to the long-term conservation and ecological viability of the Guassa Area **mitigated**
3. Regular management-orientated **monitoring and assessment** of key ecosystem values, processes and threats **strengthened**.

The objectives and associated actions are described below, along with a brief description of the relevant management issue or challenge that provides the justification for the actions. Detailed actions that need to be carried out to fulfil these objectives re included in the Action Plan in Section 6.

Objective 1: Communal and traditional sustainable natural resource management of the Guassa Area strengthened

Specific objective 1.1: Grass extraction regulated, monitored and sustainability ensured

The Guassa grass is essential for the livelihoods of the Menz community. However in the recent years the rate of grass cutting has increased, driven by the demand in the adjacent urban centres and by the increasing population of the Guassa user community. Even so, production has not met demand. Studies indicate that the total offtake during 1997 -1998 was only 30% of the total harvestable grass biomass (REF), but in 2002 and 2005 the harvest total cleared the existing *Festuca* biomass. For example in 2002, 134 donkey-loads of grass per afternoon were harvested from the central areas of Ras Ketema and Dija Hill area for a month and the grass did not recover. This degradation of the *Festuca* in Guassa has been accelerated by grazing high number of livestock after grass cutting, a practice that had been regulated in the past. In some areas over-harvesting has meant that *Festuca* has totally disappeared or been out-competed by other colonising species.

Action 1.1.1: Regulate areas and volumes of grass harvest in the Guassa Area

Currently, Guassa grass is cut every 2 years in every location that the grass is found. The Guassa users much determine the areas available for cutting grass each year and the volume of grass that can be cut there in each season.

Action 1.1.2: Monitor the volume of grass extraction

Monitoring the volume and effect of natural resource extraction is a key component of sustainable natural resource management practices and ideally is conducted by the users themselves, with advice and potentially verification from technical experts, such as in the Woreda Agricultural Office or partner projects. Currently human use is monitored by quarterly transects by the FZS-AECP staff that record the number of people using the area and what resource extraction they are conducting. However this system does not record the volume and type of grass extracted, nor the effect of cutting on the growing grass itself. A new system using community management groups and the Woreda Agricultural Office must be devised as a key component of the overall ecological monitoring programme (Objective 3).

Action 1.1.3: Assess the optimum harvesting rate of *Festuca* stands

Little is known about the growth rate of the *Festuca* grass and the effect that human use has on its growth or structure. A long-term study is needed to examine the effect of grass harvesting on grass growth and associated biodiversity in order to establish optimal cropping rates. Building of enclosures in *Festuca* grassland community for monitoring the dynamics of the grassland would be required. Information obtained will be then fed into the management of the grassland community and will directly influence the frequency and location of harvesting seasons.

Specific objective 1.2: Sustainable fuelwood management system implemented

Unsustainable collection of fuelwood has been one the major problems in the area. The shrubby vegetation of the Guassa Area, mainly Cherenfi (*Euryops* Spp.), *Erica* and *Hypericum* provide the bulk of the fuelwood for the GA. The volume and the method of harvest are the major concerns. For example, collection of Cherenfi is very destructive since it frequently involves digging out the plant roots, thus inhibiting regeneration. Indeed stands of *Euryops* are lower in areas where it is harvested than in those that are not. It also removes habitat for wildlife, particularly rodents, whose densities exhibit an inverse correlation with the degree of firewood collection (REF). In *Euryops-Alchemilla* shrubland, prime rodent habitat and fuelwood collection areas, rodent activity forms mima mounds formation and alters soil structure. However, fuelwood collection destroys these mounds and vegetation cover is removed, increasing the risk of erosion and exposing the rodents to predators. Fuelwood collection therefore has to be regulated and non-damaging methods of collection promoted (see Objective 2) so that these habitat types are safeguarded. Promotion of alternative fuel sources and an improvement in fuel use efficiency are dealt with in the Community Outreach and Sustainable Development Programme (Section 5).

Action 1.2.1 Regulate fuelwood harvest

Fuelwood harvest by the community should be limited to a sustainable quantities and digging and uprooting of the shrub should be stopped. This will include liaison with the community scouts

Action 1.2.2 Monitor the volume and type of fuelwood extracted

There should be a constant monitoring of fuelwood harvest is required as an integral part of a sustainable resource management system, so that adaptive management can be used to adjust harvest rates appropriately.

Specific objective 1.3: Sustainable grazing management system implemented

Many households among the Guassa user community have very little private grazing land, but continue to increase their livestock herd as a livelihood option. Every Guassa Area user considers that the purpose of the area is to provide them with grazing ground. This is a very dangerous perception that has the potential to changes the established common property resource

management system into an open access resource and thus a 'tragedy of the commons' that will eventually result in complete degradation of the environment. Communities should be given training on how to grow fodder for their livestock as a package of sustainable agriculture practices on their land and aim for improved livestock quality rather than an increase number, with the same profit margin. Such a change in the cultural approach to agriculture will however be difficult to effect, even if people realise that there is a land shortage.

Traditional seasonal patterns of grazing were designed so that the natural resources were not detrimentally impacted. A closed season of three years was followed by a short open season of three months in the dry season, when areas that were not used for grass cutting were grazed. The wet season (Aug-Sept) is clearly the time of fastest grass growth and also the time of year when rodent and wolf breeding takes place. Low human use of the area during this period reduced disturbance for breeding wolves. It is not, however, currently clear whether this pattern of resource use is the optimal balance between resource use and conservation and whether more frequent grazing periods could be sustainable.

Action 1.3.1 Regulate the number of livestock grazing in the open season

In recent years, livestock from non-user communities as far as Tsehai Sina have been grazing in the area, sometimes permanently. However, this has now been stopped through a mechanism established between the user community and the community scouts. Strict bye-law enforcement in the closed season should be implemented for persons who graze livestock in the Guassa Area. In addition, the conditions attached to user agreements should be transparent and acknowledged by all users to avoid confusion and misunderstandings.

Action 1.3.2: Investigate alternative fodder and grazing management systems

Action 1.3.3: Facilitate organisation of all grazing systems in the area

Ultimately, regulation of the grazing in the Guassa area will be challenging when there is a shortage of grazing land in the wider Guassa area and where an overall grazing management system is not considered. Thus an overview of the availability of grazing in the area and an understanding of how grazing is managed, for example the traditional corral-based and "Guassa Tera" systems, is required as a first step. Once these are better understood, then strategies to strengthen any existing management systems can be devised.

Objective 2: Threats to the long-term conservation and ecological viability of the Guassa Area mitigated

The desired future state of affairs in the Guassa is one where the threats to the ecosystem are minimised and essential ecological processes are maintained as near as possible to their pristine natural state in this otherwise small area. Two objectives have been devised in addition to Objective 1, with associated actions that will reduce these human-associated threats by reducing pressure on the natural resources, by restoring habitat where required and by carrying out activities that maintain healthy wildlife populations.

Specific objective 2.1: Degraded habitat restored where necessary

Habitat destruction as a result of resource harvesting has been noted in the past as collection of fuelwood may destroy rodent burrows and nests. Moreover, grass-cutting followed by intensive livestock grazing can cause destruction of grass roots and thus a reduction in the regeneration potential of the *Festuca* grass. In addition, cattle bomas for the grazing periods have been constructed in different areas and are a source of environmental degradation, as they cause vegetation cover removal, sheet erosion and in some cases the formation of deep gullies. Restoration of such areas and improvement of harvesting practices is important.

Action 2.2.1: Work with users to improve resource harvesting practices.

Harvesting and management of natural resources should occur in such a way as to enhance and foster replenishment of the resource. For example, if grasses are cut too deeply and into the root base, then regeneration can be impaired. Similarly, leaving section of Cherenfi roots during harvesting may increase regrowth. Best management practices need to be identified for all types of resource use and disseminated to user-groups, in combination with improved regulation and enforcement. Such activities may need to be integrated with more detailed stewardship and resource harvesting rights of individuals or groups of users within the Guassa Area

Action 2.2.2: Reduce erosion around degraded areas.

The identification and rehabilitation of degraded areas should be undertaken and appropriate restoration activities introduced if necessary. This will require methodological input from ecological and agricultural experts. Erosion may be occurring along paths, around bomas or at watering points. Erosion sites need to be incorporated into monitoring activities (see Ecological Monitoring Framework).

Action 2.2.3: Restore over-harvested areas

With the current extended closed season system, it is not clear whether over-harvesting is or has been occurring. However, identification of any areas that have been over-harvested by community resource monitoring, needs to be carried out to assess whether any restoration efforts need to be made. If so, further measures to restore these areas must be carried out

Specific objective 2.2: Healthy wildlife populations maintained

Wildlife populations in the Guassa Area suffer from a number of problems, of greater or lesser significance, as specified in the threat assessment. For example, with a main road crossing the Guassa Area, road casualties are not infrequent and are a particular concern for Stark's hares and Ethiopian wolves. Persecution of gelada baboons for crop raiding and Ethiopian wolves and jackals for livestock killing occurs in some Afroalpine areas, but does not currently seem to be of particular significance in the Guassa Area.

Action 2.3.1: Erect wildlife road signs along the main roads

Road signs indicating the presence and right of way of wildlife should be erected at Yedi, Sefed Meda, and Ambo Chika on the main road from Debre Birhan to Mehal Meda. To counteract the effect of the Mehal Meda – Giske-Rabe road a road sign should be erected at Tebab and Anget Mwgia areas.

Action 2.3.2: Assess the extent of human-wildlife conflict (HWC)

Human and wildlife conflict can be a major threat for wildlife and point of disagreement for communities in human-dominated landscape. For example in the Guassa Area there have been reports of killing of gelada baboons in response to crop raiding. Research to look at the magnitude of the human and wildlife conflict and the attitude of the people towards the wildlife of the area should be conducted.

Action 2.3.3: Facilitate the control of domestic dogs and their diseases

Direct predation and attacks by dogs pose a threat to a number of wildlife species, including rodents and hares, whereas infectious diseases (e.g. rabies and canine distemper) transmitted from dogs are also the greatest immediate threat to Ethiopian wolf survival across its range. Dogs also pose a threat to Ethiopian wolves through competition as rodent predators and hybridization. Ethiopian legislation dictates that domestic dogs should not be allowed to freely wander away from homesteads, although such legislation is rarely enforced. Vaccination of dogs against rabies, a disease that affects humans, wildlife and domestic livestock, has been conducted to some extent in the past, and future efforts to reduce the chance of domestic dog disease spreading to Ethiopian wolves should be encouraged and supported.

Objective 3: Regular management-orientated monitoring and assessment of key ecosystem values, processes and threats strengthened

Information on the health of the Guassa ecosystem, how it functions and the severity of the threats to its continued functioning is essential to make informed management decisions and is a key component of a sustainable natural resource management system. An adaptive management system can therefore be adopted over time by building on new knowledge and experiences. A simple, sustainable monitoring system is required for the Guassa Area, which will feed back directly to the user community managing the area. Until now, the wildlife of the Guassa Area has been monitored by technical experts from the EWCP and FZS-AECP, who have conducted wildlife transects, trapped rodent populations and studied known packs of Ethiopian wolves. This has provided detailed and scientifically verifiable information to the present knowledge of wildlife population distribution and size. The challenge now is to expand this system to cover other aspects of the ecosystem and the threats and adapting the scheme for community implementation, whilst maintaining objectively verifiable information that is comparable to previous methods. Whilst scientific input is required to design such a system and provide capacity building for community monitors, it is crucial that the Guassa User community is empowered as far as possible given low literacy levels, to collect and evaluate information on the state of the resources it is using and managing.

Simple monitoring and evaluation systems will be developed based on synthesising a “scientific” approach to ecological monitoring, research and management with an approach that uses traditional ecological knowledge and community effort to monitor the amount of natural resource and the impact that resource use has, and the overall state of the ecosystem. Ideally an audit and cross-checking system that includes parallel scientific procedures where appropriate, is a requisite component of such a system to ensure data reliability and verification of results and also build trust. This will establish a key component of the feedback loop for adaptive management that reviews, evaluates and adjusts the management of resources and sustainable levels of use at regular intervals. A more technical role could be played by the Woreda Agricultural office, or by external projects such as the Ethiopian Wolf Conservation Programme, in collaboration with the Guassa User community.

Whilst a framework for ecosystem health and threat monitoring has been drawn up as part of the GMP (Appendix A), the protocols and methods to conduct this monitoring, and how that can be carried out using a community-based monitoring system, need to be developed. In addition, some research priorities have been identified (Appendix C), but this list must be maintained and updated regularly.

Action 3.1.1: Design overall ecological monitoring system that incorporates both technical and community-based aspects in a complementary and synergistic fashion.

Using the overall monitoring framework (Appendix A) that outlines the ecosystem components and threats that require monitoring, the specific activities that should be carried out by technical experts and/or community members and the community scouts, need to be determined. Protocols then need to be drafted for all monitoring activities.

Action 3.1.2: Develop capacity and implement sustainable joint community-based and technical monitoring scheme

Once a monitoring system has been designed, the human and material capacity needs for implementation, with associated financial implications, must be assessed. Once done and equipment procured, a comprehensive capacity-building programme for community members, community scouts, woreda staff and other sections of the management team will be needed to

establish the building blocks for programme implementation. Partners will be needed from woreda offices and scientific and education institutions and financial support sought. A 'learning-by-doing' approach will be a key part of implementation, as capacity is built and tailored to on-the-ground needs. Committed and regular input from partners in the initial implementation period will be essential.

Action 3.1.3: Devise and implement systems for data management, interpretation and feedback into adaptive management

Simple systems of data management and interpretation, that are accessible to local communities and management are essential in the Guassa Area and will need to be carefully designed and adjusted during implementation. Communities, with their partners, need to be able to control and understand the information that is assembled so that it can be used to support management decisions, particularly to other community members. Cross-checking mechanisms to compare results from technical monitoring and community monitoring will be included as will systems for data interpretation and feedback into management decisions.

Action 3.1.4: Facilitate research on topics highlighted as research priorities

Priority research topics identified as part of the GMP formulation (Appendix C) should be listed and disseminated to potential academic partners. Research initiatives in the area should be assisted where possible. In the long term, projects examining issues such as the effect of natural resource use on ecosystem status and dynamics may require the formation of permanent enclosures in harvested and unharvested areas.

5

Outreach and Sustainable Development Programme

Programme Purpose:

The GCCA secured through improved understanding of the environment and increased sustainability and diversification of local livelihoods

This Outreach and Sustainable Development Programme (O&SDP) aims to ensure the users and neighbours of the Guassa Area directly understand and importance of the Guassa Area and obtain direct and indirect benefits. Thus adoption of this programme should elicit additional support for the conservation of the GA and its exceptional resources as well as facilitating a positive flow of benefits out of BMNP – including information, ideas, education opportunities, development initiatives and, where possible, revenue and livelihood development. These may assist in mitigating the costs of living near the area and ensure that the Guassa Area is at the core of a local integrated conservation and development management system.

Three 5-year objectives have been drawn up for the CO&SD Programme, to tackle the issues, challenges and opportunities identified by community stakeholders relevant to this programme. The objectives are:

1. **Awareness creation, environmental education** activities and the sense of ownership strengthened,
2. **Ecotourism developed** through culturally and environmentally appropriate initiatives,
3. **Conservation-compatible sustainable development** initiatives facilitated.

The objectives and associated actions are described below, along with a brief description of the relevant management issue or challenge that provides the justification for the actions. The Action plan for the Outreach Programme is included in Section 6.

Objective 1: Awareness creation, environmental education activities and the sense of ownership strengthened

Wider local, national and international awareness of the Guassa Area will significantly increase support for conservation by creating a sense of ownership, pride and responsibility amongst stakeholders, particularly at the local level. This sense of ownership will directly support management activities whereas increased recognition will strengthen political support and fundraising efforts nationally and internationally. Increased awareness can be achieved through collaborative work with the community, local administration and education institutions and increased availability of information for decision-makers.

Action 1.1: Establish awareness-creation programme for the Guassa community

In collaboration with the kebele associations, farmers' conferences in the user community will be held where discussions are facilitated on the use and importance of the Guassa Area. In other

sectors of the community, target groups need to be defined and then appropriate awareness creation tools employed. For example, drama groups have been used in other areas to convey environment, health and education messages to all sectors of communities, including those with low literacy, and might be appropriate in the Guassa context.

Action 1.2: Produce and disseminate publicity material for the Guassa Area regionally and nationally

Information on the Guassa Area and its conservation importance will be designed and printed. These will then be distributed both nationally and regionally to governmental and non-governmental bodies. Displays that could be moved around markets in the area could also be produced and circulated. Some overlap in development of publicity materials might be evident with tourism promotion and interpretations materials (Action 2.2.5). Where possible, distribution of materials will be followed up by representatives from the Guassa Committee or its partners visiting target bodies.

Action 1.3: Strengthen school environmental clubs

Schools found around the Guassa Area have been encouraged by partner projects, notably FZS, to form environmental education clubs and to conduct activities that enhance their general understanding of the environment by partner projects. Further educational and interpretive materials and methods will be prepared for these clubs that can be used as handouts and worksheets to students and interested visitors. Moreover, material will be improved and supplemented over time. The potential for integrating environmental topics into other aspects of education, such as maths or language, should be explored as this approach has proved successful elsewhere.

Action 1.4: Develop interpretative centre for local residents and tourists

The Guassa Area is an important resource for environmental education. Development of a small museum and interpretative centre, made with local material and in a local construction style would enhance the effectiveness of the environmental education programme in the area, give school students a chance to experience the Guassa environment and its ecological function and also provide a destination for tourists.

Objective 2: Ecotourism developed through culturally and environmentally appropriate initiatives

The Guassa Area provides many attractions such as the scenery, wildlife, and a 'wilderness' appeal to potential visitors. In addition, the centuries-old cultural features of the Menz people, including churches, monasteries and other cultural features, are also an important draw to the area. The Guassa Area could therefore become a significant contributor to the local economy through the development of tourism. The area benefits from its proximity to the many residents, expatriates and visitors of Addis Ababa, the Ethiopian capital, the host city for the African Union and other international offices and the location of many meetings and conferences. Thus weekend travel from there and other urban centres is a possibility. Guassa also provides a good opportunity for those who would like to travel to the highland areas of Ethiopia but do not have enough time to visit the highland parks of the Bale and Simien Mountains. Against this background, nature-based, pro-poor tourism development is a potential method of livelihood diversification and income generation for supporting the conservation management of the Guassa Area and the development of local communities. Communities must be directly, centrally and indirectly involved in any tourism development, but in a culturally and socially acceptable manner.

Community tourism development is a growing area and there are a number of such initiatives and considerable expertise within Ethiopia and the wider region. For example, TESFA, an Ethiopian NGO, have developed visits to communities around Lalibela in northern Ethiopia and GTZ have been involved in developing community horse-trekking in the Adaba-Dodola and Wenchi areas.

The Guassa communities must be taken into consideration in any partnerships with private investors, for example by ensuring local staffing, the purchasing of local produce and services, and benefit sharing. Such experience and the development of best practice must be harnessed and underpin tourism development in the Guassa Area and GA managers, perhaps by bringing in experienced partners such as TESFA for such initiatives.

Specific objective 2.1: Guassa Communities' capacity to be involved in tourism development increased

Lessons learnt from other initiatives illustrate that considerable capacity building within communities needs to be carried out in order for them to participate in an equitable and sustainable way. This is a key challenge for the Guassa Area where the poor rural community has low levels of education and connection to the wider world. However, the community is cohesive and has its strong traditional governance systems, both of which provide a good platform for maintaining its identity and culture when in greater contact with visitors.

Action 2.1.1: Provide tourism awareness training for the local communities

A 'Tourism Awareness' programme for the communities in and around the Guassa Area is needed so that visitors have a positive tourism experience. The attitude of children to tourists is a key focus of this action and work must be conducted with local teachers to develop tourism friendly behaviour in children in the area. Children must beg and shout when they see tourists, rather they should greet visitors politely and not crowd and stare when tourists are in public places. Working with community leaders, youth and women's groups will help to reinstate and reinforce traditional values and attitudes. In addition, publicity should cover topics that increase understanding of the lives and origins of tourists and how to deal with cultural differences. This will ensure that tourists are seen as people with shared rights rather than just financial opportunities.

Action 2.1.2: Facilitate tourism-relevant training and skills development for community members in communities developing tourism initiatives

A range of training and skills development will be required from basic financial management, interaction with tourists, hygiene maintenance, food provision etc, if joint tourism initiatives are developed in the area and if the community is involved in service provision. Experience sharing visits to and from other community enterprises such as the TESFA initiatives will be valuable. In addition, links and opportunities provided by initiatives of other actors in the area should be closely coordinated. Private investors should be centrally involved in building the capacity of the communities with which they will interact.

Action 2.1.3: Work with local communities to explore and exploit the potential for marketing local artefacts

Wherever possible, local communities must take additional advantage of economic tourism opportunities through marketing local artefacts. Artefacts that might be attractive to tourists must be identified, for example basketware, cow horn spoons and decorations, and wooden food storage containers. Opportunities for tourists to buy these artefacts in a mutually respectful way must be identified. For example a cooperative souvenir shop could be set up within the tourist facilities.

Specific objective 2.2: Visitor facilities and services developed and diversified

Action 2.2.1: Facilitate construction of self-catering accommodation, camp sites and trails

A visitors' centre is being constructed using local material and in the traditional Menz style of house building at the site of the former sheep station at Yedi. This will provide basic self-catering accommodation, kitchen, water and information on the area. In addition, campsites will be set up at Regreg and Ate Wuha, where water, toilets and a cooking hut could be provided. The track leading

from the disused sheep shed to Sefed Meda, Ras Ketema and Dija to Ate Wuha should be maintained for trekking. This track provides an opportunity to view the most beautiful scenery in the Guassa Area and also excellent wildlife viewing. It can be developed as a nature trail with information posts along the way. An effective and adaptive management system for these facilities is a key component of setting up ecotourism and must be designed and implemented, with suitable training provided to those maintaining and operating the systems.

Action 2.2.2: Solicit private sector involvement as partners in tourist development in the area

Private involvement in ecotourism development in the Guassa Area is important in order to increase the standard of tourism provision, increase revenue generation and therefore the potential for continued conservation management of the GA. Such involvement could include running tours, or the construction of tourist lodges. Models for tourism concessions exist from other areas of Ethiopia and elsewhere in Africa and concession model(s) that are best suited to the Guassa situation should be selected. However these should ensure that local communities and the Guassa Management benefit maximally from such initiatives through payments and employment. In addition, full environmental and socio-economic impact assessments and mitigation must be conducted on any developments and recommendations must be implemented.

Action 2.2.3: Support local guides and horse/mule providers in providing tourism services

Local guides for the Guassa Area would be an asset for tourism provision, providing interpretation of local natural resources, interaction with other tourism service providers, security and insights into cultural practices. Initially, a very small number of individuals from the local community should be selected and trained on the principles of guiding, environmental interpretation including the natural history of the area, its physical and biological resources, cultural features and history, as well as how to interact with and manage tourists. Guides should be well mannered and well respected members of society, since they represent the community and serve the community as an ambassador to the external world. Guides should be conversant in the use of maps and guide books as well as be able to communicate easily with non-Amharic speakers, particularly in English. Guides and tourism service providers, such as muleteers, should be encouraged and facilitated to form indigenous associations that self-regulate, as in other ecotourism areas in Ethiopia, for example Simien Mountain National Park and Adaba-Dodola. Experience sharing visits to such areas might be a useful component of capacity-building.

To minimize the negative impact of tourism in the Guassa Area visitors should be encouraged to walk or trek in the area or use horses and mules, rather than driving in cars, for maximum environmental sustainability. The Guassa user community should provide horses and mules to tourists for trekking, at a set price. Cooking utensils and other camping equipment could be made available at the community tourist centre or should be hired from members of the community. Local suppliers are likely to need assistance in setting up horse-lending cooperatives to provide and regulate this service.

Action 2.2.4: Improve awareness of tourism providers of the standards required for tourism facilities and services, including hygiene levels

Training should be given to members of the community on the management of tourist facilities. Standards of general hygiene and toilets in particular, are a common problem for tourism provision in Ethiopia, even in the most upmarket establishments. Older tourists may be unused to squat toilets, and may not have the leg strength to use them, thus operations dealing with this type of visitor must be able to provide seated and environmentally sensitive toilets. Good hygiene can also be a problem and many visitors suffer from stomach complaints after eating in local food outlets. The Guassa Area must work with health services and tourism providers and other stakeholder to raise hygiene standards to avoid such problems.

Action 2.2.5: Plan and produce interpretation materials

Tourist guide books, brochures, maps and posters that outline the importance of the area, its location and the services and tourism experiences that can be provided will be produced to

increase awareness among tourist operators, international tourists, the expatriate community and the general public (See also Action 1.2).

Specific objective 2.3: Visitor management system established and enhanced

A good tourism experience is essential for visitors, as this will improve the reputation of the area and eventually increase the number of visitors. However, with virtually no tourists visiting the Guassa Area, there is currently no tourism management system or services available to promote and enhance the visitor experience. Visitors do not know what opportunities are available in the area, what services might be available, nor are there guidelines on how the area and the local community should be treated by visitors.

Action 2.3.1: Work with other stakeholders to improve tourism access

Interpretation and information materials will be made available to tourists through web sites or through tourist operators. For local tourists information material will be distributed in places areas where they will be easily seen. Tourism to Guassa will also be promoted through liaison with the Regional Tourism Commission office and working with private tourist operators. Further work might involve encouraging the development of further tourist destinations and routes in the area.

Action 2.3.2: Establish visitor management system

A simple tourism administration system needs to be developed that supports and inform tourism management in the Guassa Area. Tourism use can be monitored to provide feedback for the improvement of tourism services, as numbers build up. In the future, once the Guassa Community has a legal management body, it may be possible to collect a fee from visitors that would go towards management of the area (e.g. community scouts), development of tourist infrastructure, and to the local community for conservation-compatible development.

Action 2.3.3: Produce comprehensive and clear code of conduct for visitors coming to Guassa to minimise cultural and environmental impacts.

Whilst tourism can clearly bring enormous economic benefits to individuals, communities and nations, as well as for the conservation and management of natural resources, there are often drawbacks associated with an influx of relatively wealthy visitors to an area. Most frequently, a high level of visitor use can have a direct impact on the quality of the environment they have come to enjoy. Moreover, exposure and contact with people from other countries, whilst beneficial in many ways in introducing and widening the horizons and knowledge of local communities, can have a detrimental impact on the culture and social wellbeing of communities. Begging children and the erosion of core community values are clearly undesirable side-effects of tourism.

With globalisation increasing rapidly, tourism development must be sensitively managed with due forethought to such negative impacts. The establishment of comprehensive, clear and enforceable guidelines and mechanisms that will ensure the well-being of the people of Guassa, its wildlife and key habitats, whilst at the same time providing a high level of visitor satisfaction and safety are a high priority for development as tourism use increases. A code of conduct for visitors to the area should be prepared that outlines allowed activities and appropriate behaviour when interacting with wildlife and when visiting local communities should be provided on arrival to every tourist and posted at the road entrances to the Guassa Area (Yedi and Ambo Chika) and at tourism facilities such as the mountain hut.

Objective 3: Conservation-compatible sustainable development initiatives facilitated

The increasing pressure on the natural resource of the Guassa Area has arisen from the general increase of the local human and livestock population and their food and income insecurity. This has been compounded in a number of ways, for example through the implementation of a

development project designed to improve food security, that has increased the size of small ruminants at a household level. In order to achieve a reduction of pressure on the natural resources of the Guassa Area, integration between development and conservation initiatives is a priority, along with facilitation of specific conservation-positive development initiatives. For example, the development of alternative fuel sources, particularly household fuel lots is a priority and has been successfully achieved elsewhere in the country.

Action 3.1: Develop community and household fuelwood lots

Private fuelwood lots in private households and communities would reduce the pressure on natural resources in the Guassa Area. This will also improve the quality of fuelwood and, with appropriate species selection, could also produce building material, livestock fodder and fruit trees for the communities. Community nurseries will be established among the user community and seedlings of indigenous and exotic trees will be planted around homesteads and as hedges along farm boundaries with minimum ecological disturbance. This may also serve to stabilize field margins and reduce erosion on farmland.

Action 3.2: Facilitate communities and projects developing alternative livestock fodder

“Cut and carry” fodder provision systems with livestock zero-grazing activities are being encouraged in the Amhara Region to improve livestock production. This requires production of fodder in private land through the growth of fodder trees, shrubs and grasses. This has been trialled in the adjacent kebeles and good results have been apparent. Communities could therefore be assisted to produce fodder tree seedlings, which might also be used as fuelwood and construction material.

Action 3.3: Promote domestic production of Guassa Grass

Whilst regulation and conservation of this natural resource is critical and is addressed (EM& SNRM Programme), there is also the potential to expand production by using it for environmental control along field margins and farm boundaries. Natural strips of Guassa grass planted in a row reduce the speed of water flow, thereby reducing soil erosion. This is also an effective way of propagating the grass and increasing its value. Promotion of such farming practices will be encouraged in local communities in the GA.

Action 3.4: Promote diversification of sustainable agricultural activities

Diversification of agriculture could have a significant effect on community livelihoods, thereby reducing pressure on the natural resource use in the Guassa Area in the long term. For example, several species of fruit trees should flourish in the area and these species could be included in community tree nurseries. Pilot and demonstration initiatives should be set up with the Woreda offices and innovative individuals and communities to test such diversified activities.

Action 3.5: Liaise and coordinate development initiatives to ensure a positive impact on Guassa conservation

The protection and conservation of the Guassa Area is not only the responsibility of the community and the Guassa Woreda Committee, but should involve other stakeholders as well. The Woreda Agriculture Office, in collaboration with the community has a responsibility to introduce the concept of sustainable agriculture which leads to the improvement of the living standard of the community and works towards environmental sustainability. Improved awareness and liaison between government and non-governmental development initiatives is vital to ensure that such initiatives are conservation-positive. Efforts must be made to contact and coordinate such initiatives.

6

3-year Action Plan

This GMP should guide the management and development of the Guassa Area next 5 years, by laying out the vision for the area and the strategies by which that vision might be achieved. In addition to providing this longer-term vision and strategy, this document also provides direct guidance on the actions and detailed activities that must be undertaken for this vision to be fulfilled over the next 3 years, a tangible timeframe. Input requirements for implementation are sketched out and proposed timeframes, but actual implementation will depend on the availability of financial resources. Moreover, this Action Plan will required revision in 2-3 years to roll-over, add or remove actions as appropriate.

Table 6.1: Conservation Area Operations

5-Year Management Objectives	3-Year Management Actions/ Activities	Input requirements	Priority	Responsibility/ Partners & Collaborators	Timeframe											
					Year 1				Year 2				Year 3			
					1	2	3	4	1	2	3	4	1	2	3	4
Objective 1: The Guassa Community Conservation Area legally recognised and ratified																
Specific Objective 1.1: The Guassa Area boundary agreed and demarcated with local communities	Action 1.1: Determine Guassa Area boundary		High													
	Hold community meetings in each kebele to discuss boundary location															
	Facilitate each community group to agree boundary location and record GPS location															
	Facilitate mediation of any disputes															
	Action 1.2: Demarcate Guassa Area boundary		Medium													
	Facilitate communities to decide on best method of demarcation															
	Obtain funding for demarcation if necessary															
	Carry out demarcation															
Specific Objective 1.2: The Guassa Community Conservation Area recognised and gazetted as a legally viable	Action 2.1: Ensure community bye-laws are in line with existing policy and legislation		High													
	Discuss and review bye-laws with judiciary and legal expert															
	If discrepancies evident, assess options for amendment with judiciary and legal expert															
	Review discrepancies with community representatives and agree solution															

Guassa Area Management Plan

Specific objective 2.2: Community scout patrolling and management system established.	Action 2.1: Ensure appropriate community scouts selected		Medium																
	Design criteria for community scout selection																		
	Improve awareness of communities as to importance of selection criteria																		
	Monitor performance of selected scouts																		
	Review performance and adjust employment conditions annually																		
	Action 2.2: Provide appropriate training for the community scouts		Medium																
	Provide training on relevant legislation, location of boundaries, procedures involved in enforcing legislation																		
	Improve scouts' ecological knowledge of Guassa Area																		
	Train scouts in data collection as per implementation of ecological monitoring plan																		
	Provide training on conflict resolution																		
	Determine other training needs and implement																		
	Action 2.3: Obtain patrolling equipment for scouts		Medium																
	Establish equipment needs and quantities for field patrols																		
	Obtain funding for equipment purchase																		
	Establish procurement procedures																		
	Procure equipment as feasible																		
	Establish equipment maintenance procedures and train scouts appropriately																		
	Action 2.4: Devise and implement community scout patrolling and operations system		Medium																
	Review patrolling needs for law enforcement and monitoring																		
	Devise and document appropriate patrolling plan including reporting structures and infrastructure																		
Implement plan																			
Review effectiveness of patrolling and evaluate performance of scouts																			
Adapt patrolling plan as necessary																			

Table 6.2: Ecological and Sustainable Natural Resource Management Programme

5-Year Management	3-Year Management Actions/ Activities	Input requirements	Priority	Responsibility/ Partners &	Timeframe		
					Year 1	Year 2	Year 3

Guassa Area Management Plan

Objectives				Collaborators	1	2	3	4	1	2	3	4	1	2	3	4	
Objective 1: Communal and traditional sustainable natural resource management of the Guassa Area strengthened																	
Specific objective 1.1: Grass and fuelwood harvesting regulated, monitored and sustainability ensured	Action 1.1.1: Regulate areas and volumes of grass and fuelwood harvest																
	Establish a method to monitor area and volume of grass and fuelwood available for harvesting																
	Establish bye laws as to the harvesting of grass and fuelwood (volume/household, time etc)																
	Action 1.1.2: Monitor the volume of grass and fuelwood extraction																
	Design methods to estimate productivity and off take rate of Guassa grass																
	With communities, establish a method how user communities should divide grass resource amongst themselves																
	Establish with communities, offtake monitoring system																
	Establish simple information storage, display and analysis system for fuelwood and grass extraction																
	Action 1.1.3: Assess the optimum harvesting rate of Festuca stands																
Establish a community monitoring system of the impact of harvesting on harvested species																	
Establish feedback and adaptive management system for grass harvesting																	
1.2: Sustainable fuelwood harvesting system established	Action 1.2.1 Regulate fuelwood harvest																
	Action 1.2.2 Monitor the volume and type of fuelwood extracted																
Specific objective 1.3: Sustainable grazing management system implemented	Action 1.3.1 Regulate the number of livestock grazing in the open season																
	Estimate the carrying capacity of the area																
	Improve community understanding of carrying capacity																
	Decide with community size of grazing livestock herd by household and stock type (Cattle, equid, shot)																
	Action 1.3.2: Investigate alternative fodder and grazing management systems																
	Increase awareness of community on zero grazing																
	Introduce alternative grazing resources and preparation of fodder (fodder trees, other																
Investigate visibility of feed market by using by product (grain mills, oil pressing,																	

Guassa Area Management Plan

	etc																				
	Increase access to market																				
	Action 1.3.3: Facilitate organisation of all grazing systems in the area																				
	Assess the grazing system of the user community in the wider Guassa area																				
	Monitor the effectiveness existing corral-based grazing and the "Guassa Tera" systems																				
	Strengthen the existing corral based grazing system																				
Objective 2: Threats to the long-term conservation and ecological viability of the Guassa Area mitigated																					
Specific objective 2.1: Degraded habitat restored where necessary	Action 2. 2. 1: Work with users to improve resource harvesting practices.																		Medium		
	Identify detrimental harvesting practices																				
	Identify best harvesting practices																				
	Design and implement work programme with user groups to implement best harvesting practices																				
	Action 2. 2. 2: Reduce erosion around degraded areas.																			Low	
	Identify and prioritise eroded areas																				
	Work with user groups to design and implement programme to rehabilitate degraded areas																				
	Action 2.2.3: Restore over harvested areas																				Low
Identify and prioritise areas affected, if any																					
Work with user groups to design and implement programme to rehabilitate degraded areas																					
Specific objective 2.2: Healthy wildlife populations maintained	Action 2.3.1: Erect wildlife road signs along the main roads																			Low	
	Identify problem areas where and issues e.g. road kills, off road driving etc through Scout monitoring																				
	Prepare appropriate road sign if necessary																				
	Monitor effectiveness of road signs																				
	Action 2.3.2: Assess extent of human-wildlife conflict																				Low
	Facilitate studies of gelada baboons (crop raiding) and Ethiopian Wolves, jackals (livestock) conflict																				
	Assess whether HWC is a management priority																				
	If necessary, work with community to develop mitigating measures																				
Action 2.3.3: Facilitate the control of domestic dogs and their diseases																					Medium
Discuss with local veterinary services and projects (World Vision) whether dog disease can be incorporated into their programmes																					
Facilitate the development and maintenance of dog disease surveillance mechanisms, in collaboration with local veterinary services																					
Incorporate awareness programme for good dog husbandry in environmental education programme																					

Objective 3: Regular management-orientated monitoring and assessment of key ecosystem values, processes and threats strengthened																
Action 3.1.1: Design overall ecological monitoring system that incorporates both technical and community-based aspects in a complementary and synergistic fashion																High
Review scope, successes and limitations of community-based monitoring systems nationally and internationally																
Investigate possibility of visit to a site where CBM has been set up																
Review and prioritise resources, threats, PEC and KEAs to be monitored																
Decide which indicators are best suited for technical or community monitoring, or need to be monitored by parallel systems																
Develop protocols for all appropriate indicators, including methods, timeframes, material/equipment needs																
Seek comments on monitoring protocols from relevant experts																
Action 3.1.2: Develop capacity and implement joint community-based and technical monitoring scheme																High
Determine capacity requirements from protocols																
Acquire equipment, materials and personnel as needed																
Assess capacity in community and partners for implementing scheme and thus capacity gaps																
Design and run training courses etc to fill capacity gaps																
Implement protocols gradually,																
Monitor effectiveness of CBMS and performance on monitors																
Adapt training programme as necessary and continue to mentor monitors																
Action 3.1.3: Devise and implement systems for data management, interpretation and feedback into adaptive management																High
Review scope, successes and limitations of data-management aspects of technical and community-based monitoring systems nationally and internationally																
Design and establish data storage methods for all indicators and assign responsibility for ongoing database management																
Establish working group that includes technical experts, community monitoring personnel and other partners, to discuss issues and results of monitoring work and provide feedback to management decisions																
Communicate the result of CBMS to stakeholders for input into management decisions																
Identify together with the user group status and threats of CNRM and implement mitigating measures																
Regularly review monitoring protocols to assess effectiveness and modify plan and protocols as necessary																

Guassa Area Management Plan

<p>Action 3.1.4: Facilitate research on topics highlighted as research priorities, such as the effect of natural resource use on ecosystem dynamics.</p>		<p>Medium</p>													
<p>Draw up and maintain research priority list</p>															
<p>Distribute research priority list to national research and education institutes and, if possible, internationally</p>															
<p>Develop guidelines and conditions for research in the Guassa Area</p>															
<p>Facilitate research by research institutes and universities on research priorities</p>															
<p>Ensure that researchers provide reports to Guassa Committee/ GCCA management</p>															
<p>Develop method of feedback from research findings to adaptive management</p>															

Table 6.3: Outreach Programme Action Plan

5-Year Management Objectives	3-Year Management Actions/ Activities	Input requirements	Priority	Responsibility/ Partners & Collaborators	Timeframe											
					Year 1				Year 2				Year 3			
					1	2	3	4	1	2	3	4	1	2	3	4
Objective 1: Awareness creation, environmental education activities and the sense of ownership strengthened																
	Action 1.1: Establish awareness-creation programme for the Guassa community															
	Determine target groups in community															
	Investigate potential for drama group and develop accordingly															
	Source technical expertise and design awareness programme															
	Action 1.2: Produce and disseminate publicity material for the Guassa Area regionally and nationally															
	Design flyer on Guassa Area, its importance and its amenities															
	Design poster on Guassa Area															
	Design content and format of portable display for use at market places in the area															
	Obtain budget for printing and dissemination															
	Print and disseminate as per budget															
	Design and implement programme of follow-up visits to target bodies, as feasible															
	Action 1.3 Strengthen school environmental clubs															
	Determine target schools for programme															
	Design programme for interactions with school clubs															
	Investigate potential for school drama club involvement															
	Investigate potential for incorporating environmental topics into other subject areas															
	Action 1.4: Develop interpretative centre for local residents and tourists															
	Design content and format of potential displays in existing locations, in appropriate languages															
	Develop budget for displays															
	Submit budgets to funders and proceed accordingly															
Objective 2: Ecotourism developed through culturally and environmentally appropriate initiatives																
Specific objective 2.1: Guassa	Action 2.1.1: Provide tourism awareness training for the local communities															

Guassa Area Management Plan

Communities’ capacity to be involved in tourism development increased	Identify knowledge and understanding gaps of tourism in community members, by gender and age sectors																						
	Collaborate with other stakeholders to identify potential training providers																						
	Review and decide potential training and publicity campaigns content, in light of capacity assessment																						
	Work with teachers and local schools to implement training and publicity campaigns																						
	Work with community women, youth and elders groups to increase awareness of tourism																						
	Conduct other training initiatives as per plan and funding																						
	Review need for updating training annually and conduct as appropriate																						
	Action 2.1.2: Facilitate tourism-relevant training and skills development for community members in prioritised communities																						
	Identify communities with potential for tourism development																						
	Carry out assessment of capacity gaps in communities and other stakeholders for tourism management and identify training needs																						
	Facilitate experience sharing visits to and from other community enterprises																						
	Liaise with other actors in community tourism development to identify appropriate training and trainers																						
	Conduct further training as per capacity needs assessment																						
	Action 2.1.3: Work with local communities to explore and exploit the potential for marketing local artefacts																						
	Undertake survey of traditional artefacts potentially marketable to tourists																						
	Explore marketing and merchandising opportunities and outlets for artefacts locally and nationally																						
	Identify people engaged in artefact making and organize for sustainable supply																						
	Undertake training needs assessment for producers																						
	identify appropriate training courses/methods																						
	Undertake training as per capacity building need																						
	Ensure that product marketing does not cause unsustainable resource use																						
	Specific objective 2.2: Visitor facilities and services developed and diversified	Action 2.2.1: Facilitate construction of self-catering accommodation and camp sites.																					
		Develop tourism infrastructure provision plan																					
		Seek financing for infrastructure development																					
Build and develop as appropriate																							
Review potential models for infrastructure management and maintenance																							
Develop appropriate management systems for infrastructure																							

Guassa Area Management Plan

	<p>Action 2.2.2: Solicit private tour operators to be involved in tourist activities in the area</p> <p>Review models for concession agreements for private-community tourism development</p>																			
	Circulate tourism infrastructure provision plan to potential private investors																			
	Facilitate private investors and communities in joint negotiations																			
	<p>Action 2.2.3: Support local guides and mule provides in providing tourism services</p> <p>Identify individuals and community groups with potential for tourism provision</p>																			
	Facilitate formation of provider groups																			
	Assist with identification of training and capacity building needs																			
	Facilitate training, experience-sharing visits and capacity building as appropriate																			
	<p>Action 2.2.4: Improve awareness of tourism providers of the standards required for tourism facilities and services, including hygiene levels.</p>																			
	<p>Action 2.2.5: Plan and produce interpretation materials</p> <p>Plan and prioritise materials needed for interpretation in Guassa Area</p>																			
	Obtain expert assistance in designing new materials																			
	Produce new materials, once funding secured, according to prioritisation																			
Specific objective 2.2: Visitor management system established and enhanced	<p>Action 2.1: Work with other stakeholders to improve tourism access</p> <p>Liaise with woreda, regional and national offices on how the Guassa Area can be promoted</p>																			
	Investigate potential for website																			
	Investigate and develop booking system for facilities with other community tourism initiatives																			
	investigate potential for development of other tourism attractions in the area																			
	<p>Action 2.2: Establish visitor management system</p> <p>Decide where visitor management system should be based</p>																			
	Investigate how a fee could be charged and retained for visiting the Guassa Area, given changes in legal status																			
	Develop system of reporting tourist numbers, activities etc on monthly and annual basis and ensure information required for impact monitoring included																			
	Develop simple computer database to collate data on tourists and their activities for monthly updating																			
	<p>Action 2.3: Produce comprehensive and clear code of conduct for visitors coming to Guassa to minimise cultural and environmental impacts.</p>																			

Objective 3: Conservation-compatible sustainable development initiatives facilitated																											
	Action 3.1: Develop community and household fuelwood lots																										
	Promote rationale and advantages of fuel wood production																										
	Support community nurseries with equipment and seed provision																										
	Support dissemination of seedlings into community																										
	Provide follow up for improving and monitoring seedling survival																										
	Action 3.2: Facilitate communities and projects developing alternative livestock fodder																										
	Identify potential methods for provision of alternative fodder																										
	Identify progressive farmers in the communities																										
	Set up demonstration plots with progressive community members																										
	Action 3.3: Promote domestic production of Guassa Grass																										
	Identify progressive farmers in the communities																										
	Facilitate experience sharing visit to Abune Yoseph																										
	Set up demonstration plots with progressive community members																										
	Facilitate individuals to spread results through community																										
	Action 3.4: Promote diversification of sustainable agricultural activities																										
	Identify potential partners in agriculture diversification																										
	Identify potential agricultural products for the Guassa Area, such as fruit trees																										
	Set up demonstration plots with progressive community members																										
	Action 3.5: Liaise and coordinate development initiatives to ensure a positive impact on Guassa conservation																										
	Facilitate establishment of Guassa Area conservation and development forum																										
	Facilitate and attend regular meetings for forum																										

Appendix A: Ecological Monitoring Plan

Monitoring progress in achieving the Guassa Area Purpose and thus at the ultimate impact or outcome level, relies heavily on implementing this ecological monitoring plan. This Ecological Monitoring plan focuses on determining the status of Guassa Area Priority Ecosystem Components, *i.e.* components of Guassa ecosystem that have been prioritised and together should represent the unique biodiversity and ecological processes in the whole ecosystem. Indicators and Means of Verification have been drawn up.

Some ecological monitoring in the Guassa Area has been carried out for over 5 years, initially by a Darwin Initiative Project, and then by the Ethiopian Wolf Conservation Programme and Frankfurt Zoological Society. This has involved determining the density and location of Ethiopian wolves in the area, through focal follows and transects, monitoring rodent dynamics at selected sites and conducting transects throughout the area to determine wildlife distributions and human use.

The challenge for the Guassa Area is to maintain, widen (to all the PEC) and improve the objectively verifiable scientific assessment that has already been carried out, but then to adapt and simplify the system so that much of the monitoring and assessment can also be carried out by Guassa community members. For adaptive management, the resource users need to understand directly what effect their use is having on the resources they are harvesting, thus they must be able to gather and interpret data themselves.

Table A1.1: Monitoring framework for the status of the Guassa Area’s Priority Ecosystem Components and their Key Ecological Attributes

KEAs	Indicator of change	Method of measurement	Collection frequency	Potential partners	Already being collected?	Priority
PEC: Hydrological system						
River flow (discharge)	Water yield	Point sampling at designated rivers	Daily / monthly	Amhara Bureau of Water Resources		
	Seasonal dynamics (rainfall, runoff, and evapo-transpiration)	Rain gauges, evaporation pans, gauge stations	Daily/monthly			
Water retention of vegetation and soil	Soil moisture, infiltration	Soil moisture measures	Monthly			
Water quality	Sediment load at different levels	Filters, visibility (secchi disk)	Monthly			
	Salinity, DO concentration, temperature	Conductivity, DO meter, Thermometer	Monthly			
	Ph Levels	Ph meter	Monthly			
Wetland extent and dynamics	Extent and depth	Remote sensing, plot sampling, permanent height stick	Every 3 years			
	Water quality	As above	Monthly			
	Seasonality	Remote sensing, plot sampling	Seasonally			
	Rainfall/evaporation	Daily rain gauges	Daily			
PEC: Festuca grassland						
Grassland extent	Area	Monitoring plots, photo points, quadrats	Annually			

Guassa Area Management Plan

KEAs	Indicator of change	Method of measurement	Collection frequency	Potential partners	Already being collected?	Priority
		Remote sensing				
Indicator species diversity, distribution, and abundance	Bird monitoring	Point counts	Annually			
	Small mammal monitoring	Trapping grids	Annually	EWCP	Some	
	Vegetation composition (e.g. epiphytes)	Plots	Every 3 years			
PEC: <i>Europys-Alchemila</i> shrubland						
Shrubland extent		Monitoring plots. Photo points, quadrats Remote sensing				
Indicator species diversity, distribution and abundance						
PEC: Afroalpine rodent community						
Species diversity, distribution and abundance	# active holes	Sampling plots	Yearly	EWCP	No	
	Density, number of species	Rodent trapping	2x year	EWCP	Some	
PEC: Ethiopian wolves						
Population size, structure and distribution	Number, composition and recruitment in breeding units	Total pack enumeration, focal follows, behavioural observations	Quarterly	EWCP	Yes	Very high
	Index of abundance in non-core areas	Line transects	Annually	EWCP	Yes	Medium
Prey abundance and distribution	Rodent abundance and distribution	As above				
Gene diversity	Change in allele frequency distributions	Faecal sampling	Every 5 years	EWCP	Yes	Low

KEAs	Indicator of change	Method of measurement	Collection frequency	Potential partners	Already being collected?	Priority
PEC: Gelada baboons						
Population size, structure and distribution	Population estimates, demographic composition, areas used	RBM, transects, focal follows	Every 2 years	University of ?	No	Medium

Table A1.2: Monitoring framework to assess the threats to Guassa Area Priority Ecosystem Components

Threat	Indicator of change	Method of measurement	Collection frequency	Potential partners	Already being collected?	Priority
Global Warming	Temperature and precipitation	Weather station: Maximum/minimum daily temperature Rain guage	Daily	Woreda		
Livestock overgrazing	Livestock numbers	Dung count plots	Monthly		No	Vey high
		Point counts, line transects	Seasonally		Some	Very high
		Household structured interviews	Seasonally			Very high
		Line transects	Monthly			High
		CBM	Monthly			Very high
		RBM	Ad hoc			Medium
Agricultural expansion	Edge of cultivated land	Remote sensing	Annually			High
	Crop yield	Household structured interviews	Seasonally			Medium
Fuel wood extraction	Shrubland cover/extent	Remote sensing	Every 3 years			Very high
	Height/state of harvesting ground	RBM, CBM	Ad hoc			High
	Household fuel use	Household structured interviews	Monthly/Annually			High
	Market sales	Interviews and watches	Monthly/Annually			High

Guassa Area Management Plan

Threat	Indicator of change	Method of measurement	Collection frequency	Potential partners	Already being collected?	Priority
Grass cutting	Presence of grass cutters	RBM, CBM	Ad hoc			High
	Market sales	Interviews and watches	Annually			
Rodent persecution by humans						
Human wildlife conflict	Crop raiding and livestock predation	Incidence reports - RBM, CBM	Ad hoc			Low
		Interviews	Seasonally			Low
Human disturbance	Presence of people	Line transects	Monthly			Medium
Road accidents	Carcass numbers and locations	Incidence reports – RBM, CBM	Ad hoc			Low
		Transects	Monthly			Low
Disease in Ethiopian wolves	Incidence/ Surveillance	Community interviews	Annually	EWCP	Yes	High
		Reports – RBM, CBM	Ad hoc	EWCP		Medium

Appendix B: Participants in Planning

No.	Name	Address	
1.	Ato yitayal Abebe	ANRS, Environment protection	Expert
2.	Ato Getachew Gebeyehu	ANRS, Agriculture & Rural Devt.	Expert
3.	Ato Abeje Zewdie	ANRS, PaDPA	Expert
4.	Ato Mullat Woretaw	ANRS, PaDPA	Expert
5.	Ato Mekonen Teshome	ANRS, Environment Protection	Expert
6.	Ato Eshetu Arega	Qwangwe Farmers Association	Guassa committee
7.	Ato Belege Tesfaw	Qwangwe Farmers Association	Guassa committee
8.	Ato Abebe Mullatu	Qwangwe Farmers Association	Guassa committee
9.	Ato Temalede Endelibu	Qwangwe Farmers Association	Guassa committee
10.	Ato Wondimu Aklilu	Gedenbo Farmers Association	Guassa committee
11.	Ato Kebede Argaw	Gedenbo Farmers Association	Guassa committee
12.	Ato Kase Shewangizaw	Gedenbo Farmers Association	Guassa committee
13.	Ato Arega Lemma	Kuledeha Farmers Association	Guassa committee
14.	Ato Gomey Mengistu	Kuledeha Farmers Association	Guassa committee
15.	Ato Wobe w/Gezaw	Kuledeha Farmers Association	Guassa committee
16.	Ato Yeshitila Beyene	Dargenge Farmers Association	Guassa committee
17.	Ato Kelilegne Talearge	Dargenge Farmers Association	Guassa committee
18.	Ato Yeshidinber Shenkute	Dargenge Farmers Association	Guassa committee
19.	Ato Debebe Begashaw	Dargenge Farmers Association	Guassa committee
20.	Ato Tekli Shewanlant	Menz-Gera Woreda Admin Council	Woreda Admin.
21.	Ato Alemu Mamo	Menz-Gera Woreda Admin. Council	Woreda Admin
22.	Ato Demke Tesfaye	Giragen Farmers Association	Guassa committee
23.	Ato Argaw Derbi	Giragen Farmers Association	Guassa committee
24.	Ato Kemachew Demeke	Giragen Farmers Association	Guassa committee
25.	Ato Abere Cherinet	Menz-Gera Woreda	Mehal Meda Town
26.	Ato Wondim Sigenge	Kewla Farmers Association	Guassa committee
27.	Ato Nigusse Alataye	Kewla Farmers Association	Guassa committee
28.	Ato Mekuria Ashine	Kewla Farmers Association	Guassa committee
29.	Ato Kefeligne Amtae	Kewla Farmers Association	Guassa committee
30.	Ato Saharew Eizinehi	Tesfomentir Farmers Association	Guassa committee
31.	Ato Zemedikun wondimnehi	Tesfomentir Farmers Association	Guassa committee
32.	Ato Asrat Cherinet	Tesfomentir Farmers Association	Guassa committee
33.	Ato Mekit Getachew	Menz-Gera Woreda	Mehal Meda Town
34.	Ato Mulugeta Kebede	Menz-Gera Woreda	Agriculture office
35.	Co. Asegedew Getachew	Menz-Gera Woreda	Police
36.	Ato Belete Wode	Menz-Gera Woreda	Mehal Meda Town
37.	Ato Mindaye W/tsadik	Chare Framers Association	Guassa committee
38.	Ato Alayu Zemedede	Chare Framers Association	Guassa committee
39.	Ato Tizaze Negash	Chare Framers Association	Guassa committee
40.	Ato Kefelegne Belete	Menz-Gera Woreda	Culture & Tourism
41.	Ato Gizaw Faku	Menz Gera Woreda	Woreda Admin.
42.	Ato Abraham Gebremedhin	Menz-Gera Woreda	Agriculture office
43.	Ato Tallegeta W/Silase	FZS-AECP	Field officer
44.	Dr. Zelealem Tefera	FZS-AECP	Project leader
45.	Ato Woldemedhin Zebene	FZS-AECP	Conservation officer

Appendix C: Research Priorities

- GIS atlas of the Guassa Area
- Effect of grazing on biodiversity and ecosystem function, including habitat modification, biomass availability rodent dynamics, and hydrology
- Investigate and document grazing systems and availability in wider Guassa region
- Investigate and document corral-base grazing system and Guassa Tera system
- Extent, socio-economics, and ecological impact of grass and fuelwood extraction to set harvesting levels
- Population size and distribution of gelada baboon.
- Human wildlife conflict (predators, geladas)
- Socio-economic status of park-associated communities in relation to natural resource use
- Watershed dynamics and impact of human activities on watershed function
- Economics and financial flows of ecosystem services provided by BMNP
- Investigate the effect of rodents on vegetation dynamics and ecosystem function
- Investigate extent of alien species and management options for alien species control
- Develop tools for climate change monitoring

Appendix D: Guassa Area Bibliography

- Alcorn, J.B.** (1994) Indigenous peoples and conservation. *Conservation Biology*, 7:424-426.
- Ashenafi, Z. T. (2001)** Common Property Resource Management of an Afro-alpine habitat: supporting a population of the critically endangered Ethiopian Wolf *Canis simensis*. PhD thesis, Durrell Institute of Conservation and Ecology, University of Kent, UK.
- Ashenafi, Z.T. & N. Leader-Williams (2005)** Indigenous Common Property Resource Management in the Central Highlands of Ethiopia, *Human Ecology*:33:539-563
- Ashenafi, Z.T., Coulson T., Sillero-Zubiri C. & N. Leader-Williams (2005)** Behaviour and Ecology of the Ethiopian Wolf (*Canis simensis*) in a Human-Dominated Landscape outside a Protected Area. *Animal Conservation* 8:113-121.
- Azene Bekele-Tessema (2001)** Status and dynamics of Natural Resource in Ethiopia. In Taye Assefa (ed.) *Food Security through Sustainable Land Use*. NOVIB Partners Forum on Sustainable Land Use. Addis Ababa, Ethiopia.
- Baillie, J. & B. Groombridge (1996)** 1996 IUCN Red List of Threatened Animals. IUCN, Gland, Switzerland.
- Berkes, F.** (1989) Cooperation from the perspective of human ecology. In Berkes, F. (ed.) *Common Property Resources: Ecology and Community-based Sustainable Development*. Belhaven Press, London, UK.
- Campbell, J. (1991)** Land or peasants? The dilemma confronting Ethiopian resource conservation. *African Affairs*, 90:5-21.
- Conservation Strategy of Ethiopia (CSE) (1997)** Federal Democratic Republic of Ethiopia, The Conservation Strategy Vol., 1-3. Environmental Protection Authority. Addis Ababa, Ethiopia.
- Daniel Gamachu (1977)** *Aspects of Climate and Water Budget in Ethiopia*. Addis Ababa University Press, Addis Ababa, Ethiopia.
- Daniel Gamachu (1991)** Some patterns of altitudinal variation of climatic elements in the mountainous regions of Ethiopia. In Bruno, M. and H. Hurni (eds.) *African Mountains and Highlands: Problem and Perspectives*. African Mountain Association, Walsworth Press, Kansas, USA.
- Dunbar, R.I.M.** (1992) The model of gelada socio-ecological system. *Primate*, 33:69-83.
- Ethiopian Mapping Agency (EMA) (1992)**. Ataye (Efeson) map Ethiopia, 1:50,000. EMA. Addis Ababa, Ethiopia.
- EWNHS (1996)** *Important Bird Areas of Ethiopia*. Commercial Printing Press, Addis Ababa Ethiopia.

- Hackel, J.D.** (1999) Community conservation and the future of Africa's wildlife. *Conservation Biology*, 13:726-734.
- Hillman, J.C.** (1993) *Ethiopia: Compendium of Wildlife Conservation*. Volume I & II, EWCO, Addis Ababa, Ethiopia.
- Hoben, A.** (1997) The cultural construction of environmental policy: paradigms and politics in Ethiopia. *The Ecologist*, 27: 55-63.
- ILCA** (1991) *Grazing and Livestock Density in the Highlands of Ethiopia*. ILCA, Addis Ababa, Ethiopia.
- Kemf, E.** (1993) In search of a home: people living in or near protected areas. In Kemf, E. (ed.) *Indigenous peoples and Protected Areas*. Earthscan, London, UK.
- Levine, D.N.** (1965) *Wax and Gold: Tradition and Innovation in Ethiopian Culture*. University of Chicago Press, Chicago, USA.
- Mesfin Wolde-Mariam,** (1991) *Suffering Under God's Environment: A Vertical Study of the Predicament of Peasants in North-Central Ethiopia*. University of Berne, Berne, Switzerland.
- Metcalfe, S.** (1994) The Zimbabwe Communal areas Management programme of Indigenous Resources (CAMPFIRE). In Western, D., M. Wright and S. C. Strum (eds.) *Natural Connections: Perspective in Community-based Conservation*. Island Press, Washington DC. USA.
- Mohor, P.A.** (1963) *The Geology of Ethiopia*. University Collage of Addis Ababa, Addis Ababa, Ethiopia.
- Pankhurst, H.** (1992) *Gender Development and Identity: an Ethiopian study*. Zed Books Ltd.,
- Sillero-Zubiri, C. and D. Macdonald** (1997) *The Ethiopian wolf: Status Survey and Conservation Action Plan*. IUCN/SSC Canid Specialist Group. IUCN, Gland, Switzerland.
- Sillero-Zubiri, C., F. H. Tattersall and D. Macdonald** (1995b) Habitat selection and daily activity of Giant Mole-rats *Tachyoryctes macrocephalus*: significance to the Ethiopian wolf *Canis simensis* in the Afroalpine ecosystem. *Biological Conservation*, 72:77-84.
- Teklesadik Mekuria** (1949). *YeEthiopia Tarik ke Aste Libnedingel iske Atse Tewoderos*. (Amharic) Brihannina Selam Printing Press, Addis Ababa, Ethiopia.
- Western, D. & M. Wright** (1994) The Background to community-based conservation. In Western, D., M. Wright and S.C. Strum (eds.) *Natural Connections: Perspective in Community-based Conservation*. Island Press, Washington DC. USA.
- World Commission on Environment and Development (WECD),** (1987) *Our Common Future*. Oxford University Press, Oxford, UK.
- Yalden, D.W. & M.J. Largen** (1992) The endemic mammals of Ethiopia. *Mammal Review*, 22:114-150.
- Yalden, D.W.** (1983) The extent of high ground in Ethiopia compared to the rest of Africa. *Sinet*, 6:35-39.

- Yalden, D.W., M.J Largen & D. Kock** (1976) Catalogue of the mammals of Ethiopia 2. Insectivora and Rodentia. *Monitore Zoologico Italiano (nuova serie) Supplemento*, 8:1-118.
- Yeraswork Admassie**, (2000) *Twenty Years to Nowhere: Property Rights, Land Management and Conservation in Ethiopia*. Red Sea Press, Lawrenceville, USA.
- Zanettin, B. & E. Justen-Visentin** (1974) *The Volcanic Succession in Central Ethiopia: Volcanics of the Western Afar and Ethiopian Rift Margins*. Institute of Geology, University of Padova, Padova, Italy.
- Zealelem Tefera** (1995) Community participation in the conservation of natural habitat in Menz area of North Shoa. *Proceedings of Participatory Wildlife Management Workshop*. Ministry of Natural Resource Development and Environmental Protection (MNRDEP) and FARM Africa, Addis Ababa, Ethiopia.
- Zealelem Tefera, & Gebreyseus Tenagashaw** (1998) The roll of indigenous institutions in the conservation of biodiversity: case study from Menz. *Proceeding of The Roll of Indigenous Institution in Development*. Society for Social Workers and Social Anthropologists, Addis Ababa, Ethiopia.