



**Improving the Livelihoods of Poor Livestock-keepers in
Africa through Community-Based Management of
Indigenous Farm Animal Genetic Resources**

2005/06 Progress Report

Kenya Research Team
University of Hohenheim
Kenya Agricultural Research Institute
GEF/GTZ Marsabit Indigenous Vegetation Project
Egerton University

compiled by

Mr. Harun Warui¹
Dr. Brigitte A. Kaufmann¹
Dr. Christian Hülsebusch²

¹ Institute of Animal Production in the Tropics and Subtropics
University of Hohenheim, 70593 Stuttgart / Germany
Phone: +49 711 459 3171 • Fax: +49 711 459 3290
Email: bkaufman@uni-hohenheim.de

² DITSL Witzenhausen - German Institute for Tropical and Subtropical Agriculture
Steinstrasse 19, Witzenhausen / Germany
Phone: +49 5542 607 29 • Fax: +49 5542 607 39
Email: huelse@uni-kassel.de

TECHNICAL REPORT

Reporting Period: 01. September 2005 – 21. September 2006
Lead Institution: International Livestock Research Institute (ILRI)

ILRI Project Coordinator (Lead Scientist) and Project Scientists

Dr. Workneh Ayalew ^{*1}
Dr. Isabelle Baltenweck
Dr. Olivier Hanotte
Woudyalew Mulatu

^{*1} ILRI, PO Box 5689, Addis Ababa, Ethiopia.
Phone: +251 1 463215 x 192; Fax: + 251 1 464645 or 461252; Email: w.ayalew@cgiar.org

Collaborating Institutions and Team members including NARS and German Partners for Kenya

Kenya Agricultural Research Institute (KARI)
GEF/GTZ Indigenous Vegetation Project Marsabit (IVP)
Egerton University (EGU)
University of Hohenheim (UHOH)

Team members – affiliation	Function
Dr. Alexander Kahi – EGU	NPO, Senior Scientist
Mr. Guyo Haro (M.Sc.) – IVP	SNR, Senior Scientist
Dr. Brigitte Kaufmann – UHOH	Team leader, Senior Scientist
Dr. Christian Hülsebusch – DITSL Witzenhausen	Senior Scientist
Prof. Anne Valle Zárate – UHOH	Responsible Senior Scientist
Mr. Harun Warui (M.Sc.) (Topic: Characterisation of AnGR in a production systems context)	PhD Fellow
Dr. Henry Cheruiyot - KARI	Senior Management
Dr. David M. Miano - KARI	Senior Management
Dr. Isaac S. Kosgey - EGU	Senior Scientist
Prof. Abdillahi Aboud - EGU	Senior Scientist
Prof. Francis K. Lelo - EGU	Senior Scientist
Dr. Isabelle Baltenweck - ILRI	Senior Scientist
Mr. Michael Ngutu (B.Sc.) - KARI/EGU/UHOH (Topic: Development, monitoring and assessment of community based management of animal genetic resource frameworks for pastoral livestock keepers; supervised by Prof. F. Lelo and Dr. B. Kaufmann)	Scientist/MSc. Student
Mr. Samuel Mbuku (B.Sc.) – EGU/UHOH (Topic: Characterization of pastoralists' breeding practices of sheep and goats in Marsabit District; supervised by Prof. A. Kahi and Dr. I. Kosgey)	M.Sc. Student
Mr. Isako Tura (B.Sc.) – EGU/UHOH (Topic: Herds history and social networks – Breeds as result of socio-cultural practices; supervised by Prof. A. Aboud and Dr. I. Kosgey)	M.Sc. Student
Ms. Gentrax Juma (B.Sc.) - EGU/ILRI (Topic: Analysis of market mechanisms and consumer behaviour of indigenous small ruminants influencing conservation and sustainable use of animal genetic resources: Marsabit-Kenya; supervised by Dr. Margaret Ngige and Dr. I. Baltenweck)	M.Sc. Student
Ms. Immaculate Omondi (B.Sc.) – EGU/ILRI (Topic: Economic analysis of indigenous small ruminant breeds in the pastoral production system: a case of sheep and goat in Marsabit, Kenya; supervised by Dr. G. Obare and Dr. I. Baltenweck)	M.Sc. Student
Mr. Edward Lentoror (Dipl. Range Management) - IVP	Research Support Staff
Mr. Mamo Sora (B.Sc.) – Ministry of Livestock and Fisheries Development/IVP	Research Support Staff
Mr. Rafael Gudere – Rendille Community	Research Assistant
Mr. James Bonaya - Gabra Community	Research Assistant

List of activities (chronological) carried out by the Kenya research team

Activity	Time
Developing M.Sc. proposal 03 - Immaculate Omondi	May – Jun. 2005
Developing M.Sc. proposal 04 - Gentrax Juma	May – Jun. 2005
Field trip of Dr. Isaac Kosgey to Marsabit	Sep. 3 rd to 7 th , 2005
Kenya Research Team National Meeting at Egerton University	Sep. 27 th , 2005
Drought in Northern Kenya	Sep. 2004 – Apr. 2006
Research stay of PhD student Harun Warui in Hohenheim	Oct. 2005 - Mar. 2006
LoA signed between Hohenheim and KARI	Jul. 2006
Development and pre-testing of data collection sheets for phase 2	Apr. 2006
Field trip of Dr. Kaufmann to Marsabit	Apr. 24 th - May 5 th , 2006
Finalisation of MSc proposal 02 - Isako Tura	Apr. – Aug. 2006
Field work planning by PhD students, MSc-students and supervisors	May 4 th , 2006
Assessment of group evolution process at Malabot and Farakoren	May – Jun. 2006
M.Sc. 03 - Immaculate Omondi data collection	May 28 th – Aug. 31 st , 2006
M.Sc. data Collection of Gentrax Juma	May 28 th – Aug. 31 st , 2006
Progress briefing meeting at KARI Marsabit	Jun. 2 nd , 2006
Finalisation of MSc Thesis of Samuel Mbuku	Jun. 2006
PhD data collection - field work phase 2	Jun. 14 th - 16 th , 2006
Training of research assistants	Jun. 19 th , 2006 Jul. 6 th , 2006
Workshops – Group formation	Jul. – Aug. 2006
Group registration and opening of bank accounts	Jul. 31 st , 2006 Aug. 11 th , 2006
Stakeholders planning meeting	Aug. 2006
Development, monitoring and assessment of community based management programmes	Sep. 2006
Forthcoming: Workshop – Group support	Oct. 2006

Project activities described in detail

Activity	Activity Code <small>(as per Kenya Country Workplan)</small>
Field trip of Dr. Isaac Kosgey to Marsabit	2.1.5
The 2 nd supervisor of the M.Sc. student Mbuku, Dr. Kosgey from Egerton University undertook a field trip to the project research sites in Marsabit District from September 3 rd to 7 th , 2005. Dr. Kosgey familiarised himself with the student's study sites, provided methodological backstopping to the student and participated the feed back seminars with the livestock keeper communities held during the same period of his visit.	
Kenya Research Team National Meeting at Egerton University	4.2.1
The Kenya Research Team national meeting, organised by the NPO Dr. Kahi was held at Egerton University on September 27 th , 2005. The meeting was attended by 40 participants - the Kenya research team, Egerton University scientists and students, KARI and ILRI scientists, and IVP-GTZ experts and ministry (MoLM) staff. After an opening welcome by the Deputy Vice Chancellor Research of Egerton University, Prof. Abdulrazak, an introduction and project overview was given by Dr. Kosgey. Dr. Köhler-Rollefson of the League for Pastoral Peoples introduced the participants to the activities and the working approach of the League in her keynote address. This was followed by five presentations held by the PhD student Harun Warui and the M.Sc. students Mbuku, Omondi, Juma and Tura, on their respective research projects, their approach, experiences and preliminary results. The contributions were discussed in open panel and the necessary steps for the next project phases were devised.	
Developing M.Sc. proposal 03 - Immaculate Omondi	3.1.1; 3.1.2
During May and June 2005 Mrs. Omondi of Egerton University has developed a proposal for an M.Sc. research entitled "Economic analysis of indigenous small ruminant breeds in the pastoral production system: a case of sheep and goat in Marsabit, Kenya" under the supervision of Dr. Gideon Obare of Egerton University and of Dr. Baltenweck of ILRI. Mrs. Omondi successfully defended her proposal at the faculty of Agriculture of Egerton University on 9 th November, 2005.	
Developing M.Sc. proposal 04 - Gentrix Juma	3.1.1; 3.1.2
During May and June 2005 Mrs. Juma of Egerton University has developed a proposal for an M.Sc. research entitled "Analysis of market mechanisms and consumer behaviour of indigenous small ruminants influencing conservation and sustainable use of animal genetic resources: Marsabit-Kenya" under the supervision of Prof. Gideon Obare and Dr. Baltenweck Isabelle. Mrs. Juma successfully defended her proposal at the faculty of Agriculture of Egerton University on 1 st December, 2005.	
Drought in Northern Kenya	n/a
A severe drought hit the study area in North Kenya. The expected rainfall during the short rainy season in 2004 (October-December) had failed and the 2005 long rainy season (March-May) was characterised by scattered showers only. The 2005 short rainy season (October-December) failed completely and the district was most severely affected by forage and water shortage culminating in early 2006. This resulted in high livestock deaths. The Ministry of Livestock and Fisheries Development reported 50%, 70% and 30% of sheep/goats, cattle and camels respectively. Resource use conflicts between different communities aggravated the situation and long distance movements	

in search of pastures negatively affected the body condition of livestock – posing a drawback to the fieldwork activities. End of April 2006 the situation improved with the onset of the long rains.	
LoA signed between Hohenheim and KARI	n/a
The draft LoA for the project specific partnership between KARI and the University of Hohenheim was modified and signed by the representatives of the two organisations in July 2006.	
Research stay of PhD student Harun Warui in Hohenheim	2.1
Between October 2005 and March 2006, the PhD student Mr. Harun Warui was in Hohenheim for the input, consistency check and analysis of data from the first fieldwork phase of his PhD research. During this period, results on the research were presented in a public seminar at the Institute of Animal Production in the Tropics and Subtropics. A report detailing the materials and methods used and results mainly on the functions of different sex and age classes of sheep and goats, and on the traits of preference was submitted to Prof. Valle Zárate. Based upon these findings, mature female goats were selected as priority livestock species/category for the second research phase of breed characterisation. Priority characteristics to be investigated in more detail were identified – among others - as hardiness, fitness and milk production.	
Between January and March 2006, Mr. Harun Warui developed the plan and schedule for the data collection during the second field work phase in Kenya under the guidance of Dr. Kaufmann. During this phase, data will be collected on pure bred goat populations in the Gabra and Rendille area – but excluding conflict prone sites - with the aim of characterising the goat breed. The data collection plan and schedule were presented to Prof. Valle Zárate and Dr. Kaufmann and discussed among the staff of the Institute for Animal Production in the Tropics and Subtropics at Hohenheim.	
Between November and March 2006, Mr. Harun Warui accomplished further coursework prescribed at the University of Hohenheim in the course of his PhD studies. Mr. Warui successfully passed the exams for the modules entitled “Quantitative Statistics in Biosciences”, “Rural Communications and Extension”, “Methods of Scientific Writing”, and passed the prescribed Test of English as a Foreign Language (TOEFL).	
Field trip of Dr. Kaufmann to Marsabit	2.2.1
From April 24 th to May 5 th , 2006, Dr. Kaufmann visited the project area in Marsabit District. A meeting with the Senior National Researcher, Mr. Haro, was held, where the impact of the drought on livestock keepers in the project sites and in Marsabit District as a whole was discussed. In Malabot and Farakoren, the two project sites, implications of the previous drought on earlier envisaged project activities, possibilities of establishing livestock keeper groups as community based organisations (CBO) and the utilization of community funds were discussed.	
Field work planning by PhD students, MSc-students and supervisors	n/a
On May 4 th , 2006 all PhD and MSc students and their respective supervisors of the Kenyan research team met at ILRI in Nairobi for a fieldwork planning session. The meeting was attended by Dr. Workneh Ayalew, Dr. Isabelle Baltenweck, Dr. Okeyo Mwai, Dr. Isaac Kosgey, Dr. Brigitte Kaufmann, Dr. James Njanja, Ms. Immaculate Omondi, Ms. Gentrrix Juma, Mr. Samuel Mbuku and Mr. Harun Warui. The respective research plans of each of the students were discussed in the group and cross-commented and modified accordingly.	

The schedules of field work of the different students were discussed and planned so as to warrant the optimal allocation of project resources (transport, enumerators / translators, etc.).	
Finalisation of MSc Thesis of Samuel Mbuku	2.1.5
In June 2006, MSc student Samuel Mbuku under the supervision of Prof. Kahi and Dr. Koskey of Egerton University submitted his M.Sc. thesis entitled "Characterization of pastoralists' breeding practices of sheep and goats in Marsabit District" to the Egerton University Graduate School and subsequently successfully defended his thesis on August 9 th , 2006.	
Finalisation of MSc proposal 02 - Isako Tura	2.1.4
During April – August 2006 Mr. Isako Tura developed a proposal for an M.Sc. research project entitled "Herds history and social networks – Breeds as result of socio-cultural practices, entailing determination of the history of the local breeds and the rules and norms governing the breeding system and isolation of local breeds". The proposal was developed under supervision of Prof. Aboud and Dr. Kosgey, and with feedback from the Hohenheim project staff. Mr. Tura successfully defended his proposal at the faculty of Agriculture of Egerton University on September 6 th , 2006. His fieldwork is to begin in early October 2006.	
Development and pre-testing of data collection sheets for phase 2	2.1
During April 2006, Mr. Harun Warui started the second phase data collection for his PhD research with developing and pre-testing the questionnaires and data collection sheets in the field. Pre-testing was done with eight (8) livestock keepers from May 29 th , to June 6 th , 2006. Based on the nature of information obtained, the data collection sheets were modified and re-tested on 32 livestock keepers, from June 8 th to 10 th , 2006.	
Training of research assistants	2.1
Research assistants recruited during the testing phase of the data collection sheet, were trained on June 19 th , 2006 for the Rendille area, and on July 6 th , 2006 for the Gabra area. They were introduced to the traits being assessed in the study and on the information being sought in each question in the interview section of the data sheet. They were also facilitated to coming up with different ways of phrasing the questions to elicit their meaning to the livestock keepers without purporting specific answers.	
PhD data collection - field work phase 2	2.1
Required sample sizes in different target research sites were calculated on June 14 th to 16 th , 2006. Data collection started on June 20 th , and is currently on-going. In the event that home based flocks are available at the target sites, sampling of the goats is carried out in settled camps; and when absent at the mobile camps (fora based camps). From each of the sampled goat, data is principally being generated by way of taking milk, linear and weight measurements, and assessment of body condition. In addition, the livestock owner is interviewed on the progeny history of the sampled goat, mainly to assess traits on fertility and survivability of kids.	
Assessment of group evolution process at Malabot and Farakoren	2.2.1
During May and June 2006, Harun Warui assessed the evolution process of the two newly formed livestock breeder groups at the project locations in Malabot and Farakoren. Constraints that the groups were realizing in the formation process were discussed. Such constraints include internal conflicts e.g. non-group community members feeling alienated from sharing of benefits from the project, registration fee defaulters etc. and external	

problems like the inability to officially register the group with government due to infrastructure related problems. Possible solutions to these problems were discussed and agreed upon. The groups had elected officials, who had been able to convene a series of meetings, and developed draft constitutions.	
Progress briefing meeting at KARI Marsabit	n/a
A progress briefing meeting was organized by Harun Warui with the Centre Director KARI-Marsabit and held at KARI, Marsabit on June 2 nd , 2006. During the meeting it was agreed that a presentation focusing on the activities already undertaken will need to be given at the centre, preferably during the Centre Advisory Committee meeting, which is due in October 2006. It was additionally noted that Mr. Michael Ngutu, a KARI staff at the centre would be prepared to offer his expertise in Participatory Action Research to the project activities.	
M.Sc. 03 - Immaculate Omondi data collection	3.1.1; 3.1.2
During the period May 28 th until August 31 st 2006, data collection was carried out in both Rendille and Gabra communities in the sub-locations of North-Horr, Kalacha, Korr, Illaut, and Ngurunit of Marsabit district. The data collected included herd sizes and perceived values of small ruminants and other livestock, livestock and livestock products sales and utilization, data for choice experiment and other socio- economic characteristics of households. Data analysis started in September 2006 and is on-going.	
M.Sc. data Collection of Gentry Juma	3.1.1; 3.1.2
During the period May 28 th until August 31 st 2006, data collection was carried out in both Rendille and Gabra communities in the sub-locations of North-Horr, Kalacha, Korr, Illaut, and Ngurunit of Marsabit district. Data were collected on marketing channels, volume and prices of small stock, marketing costs, consumer demand and willingness to pay for small ruminant meat. Analysis of the data started in September 2006 and is on-going.	
Workshops – Group formation	2.2.1
In July and August 2006, formal group formation training workshops for the two livestock breeders groups were held in Farakoren from (July 28 th -30 th) and in Malabot (August 2 nd - 3 rd). Active participation was promoted by the facilitators through dialogue during the training, where aspects of group dynamics, sustainability and development of implementation plans of activities were covered. In addition to the members of the Kenya research team, Mrs. Esther Chiwe (District Social Services Development Officer, Ministry of Gender, Sports, Culture and Social Services) and Dr. J. C. Njanja (Veterinarian/ Livestock Scientist- KARI) took part as facilitators in the group formation workshops. The following topics were covered in each project site: <ol style="list-style-type: none"> 1. Group Formation and Development 2. Objectives of a group 3. How formal groups are formed 4. Guide on constitution formation 5. Characteristics of a successful group 6. Generating group activities 7. Ranking of group activities 8. Developing of Tasks Implementation Plan 	
Group registration and opening of bank accounts	
The two livestock breeder groups were registered with the with Department of Social Services, of the Ministry of Gender, Sports, Culture and Social Services, under the following names “Farakoren Ramati self-help group”, on July 31 st , 2006 and “Malabot Small Ruminant Improvement self-help group”	

on the August 11 th , 2006. Each group has opened a bank account at the Kenya Commercial Bank, Marsabit.	
Development, monitoring and assessment of community based management programmes	2.2
In September 2006, Mr. Michael Ngutu of KARI has started to work on "Development, monitoring and assessment of community based management of animal genetic resource frameworks for pastoral livestock keepers" under guidance of Prof. Lelo and Dr. Kaufmann. The research will have a methodological focus on participatory action research and will entail the scientific backstopping for the facilitation of the process of group formation, organisation and up-keep for the livestock breeder groups, the documentation of the process, and the assessment and reflection of the process (necessary steps, problems, solution, site specific problems and solutions, generisable problems and solutions) in order to identify possibilities to improve livestock keepers monitoring capacities and to setting-up, assess and reflect exemplarily a collaborative learning approach with pastoralists. As practical result, the study is to yield a manual or guide including recommendations and a checklist for group formation organisation and up-keep.	
Stakeholders planning meeting	2.2.1
During August 2006 a stakeholders meeting, to plan for second set livestock breeder groups' capacity building workshop, was organised by Mr. Guyo Haro and Mr. Harun Warui, and held at the GTZ conference hall on August 29 th , 2006. The topics to be covered during the workshops were agreed as follows: group governance, financial management, development of detailed budgets, and setting up of a monitoring and evaluation system. The meeting was attended by the same facilitation team that participated in the group formation workshops and by Mr. Meshack Owuor (Cooperative Development Officer, Ministry of Cooperative Development and Marketing).	
Forthcoming: Workshop – Group support	2.2.1
Workshops are planned with the newly formed livestock keeper groups in order to facilitate and support the ongoing group formation process during October 2006. Funds for this activity have been transferred to IVP-GTZ.	

Activities and Milestones as per the Kenya Country Workplan

Activities completed are shaded in blue

Activities started and still ongoing are shaded in tan

Activity (codes to tally proposal)	Milestone	Scheduled	By whom
1 Identification of communities, priority breeds/species and realisation of PRA surveys			
1.1 Collect and analyse existing secondary data	Information on Somali goats and Black head Persian sheep reviewed and compiled (in Germany and in Kenya) by March 2005	10/04 – 03/05	Warui
1.2 Initial survey and selection of Management unit	Information on pure breed animals and where they can be found collected in Marsabit District and possibly neighbouring districts and at least two sites are selected as per survey findings by end of December 2004.	10/04 – 12/04	Warui advised by Haro
	Introductory meetings of the project are held at the selected sites by end of January 2004	10/04 – 03/05	Warui with Tura and Mamo
1.3 Obtaining insight into the small ruminants' husbandry system, their contribution to livelihood and marketing at the household level.	Taking into consideration the different gender, age and wealth classes, through the use of participant observations, determine current management practices of the small stock, by end of February 2005 Preliminary indicators for assessing ex- and post-ante contribution of smallstock to household livelihood developed by end February 2005 Required information on economics of production and marketing of small ruminants at household/herd level determined by February 2005	10/04 – 03/05	Warui & Mamo advised by Pattison
1.4 Holding of community based stakeholders' level planning workshops	Workshops with livestock keepers in the selected management units held and at least 20% (max. of 10 villages) per management unit are selected based on the defined criteria by February 2005	10/04 – 03/05	Village leaders with Haro, Warui, Tura, Mamo
	Mutual agreement on common goals and procedures for collaboration with community (Prior informed consent) are drafted/reached by February 2005	10/04 – 03/05	Village members with Haro, Warui, Tura, Mamo
1.5 Identifying the participating herd owners	At least one willing herd owner and community representative per village identified by February 2005	10/04 – 03/05	Village members with Warui, Haro

Activity (codes to tally proposal)	Milestone	Scheduled	By whom
2 Community-based action research			
2.1 Characterisation of livestock resources in a production systems context			
2.1.1 AnGR characterisation training	Members of the research teams from Ethiopia, Benin and Kenya will have received training on the methodology of "Characterisation of livestock resources in the production system context following the cybernetic control loop"	01/05 - 03/05	Warui with Ayalew
2.1.2 Developing and pre-testing survey instrument for the baseline survey ("Characterisation in the system context" and "Livelihood indicators")	Survey instruments are developed as per the appraisal of husbandry practices and tested by February 2005	10/04 – 03/05	Warui and Mamo
2.1.3 Training of enumerators	At least 2 enumerators are trained on the survey instruments by March 2005	10/04 – 03/05	Warui
2.1.4 Establishing herd histories to obtain breed genealogies and information on socio-cultural practices related to breeding stock	The origins of the animals (breeding females and males) in at least 10 herds are recorded by May 2005. Social networks, including institutions (e.g. rules), for exchange of breeding animals and breeding practices are established by May 2005	01/05 – 06/05	Isacko Tura support: Warui, superv.: Aboud, backst.: Kaufmann, Köhler-Rollefson)
2.1.5 Characterisation of the Breeding Practices of Sheep and Goat Keepers	Pastoral animal identification systems and actual and theoretical pastoral selection practices for breeding bucks or rams, as well as identification of the factors that bring about the differences between the actual and theoretical selection practices are described.	01/05 – 06/05	Samuel Mbuku support: Warui, superv.: Kahi
2.1.6 Carrying out baseline survey ("Characterisation in the system context" and "Livelihood indicators") 3 month data collection	Data on functions of livestock, traits and trait expression, breeding and selection system, livestock keepers assessment of traits expression Livelihood indicators and economic of production are collected by June 2005	01/05 – 06/05	Warui with enumerator
2.1.7 Preliminary analysis of survey data	Preliminary survey report prepared for discussion in feedback seminars with the test livestock keepers by August 2005	01/05 – 09/05	Warui (assisted by Pattison)

Activity (codes to tally proposal)	Milestone	Scheduled	By whom
2.1.8 Conducting feedback seminars for the participating livestock keepers	At least 2 feedback seminars are conducted per study site to agree on traits for characterisation and the methods of how to be done in their herds by August 2005	08/05	Warui responsible (Haro, Mamo, enumerators and the participating herders)
w/o number Data Analysis	Data collected within the Breed characterisation fieldwork (PhD project Warui) are analysed	11/05 – 02/2006	Warui supervised by Kaufmann
w/o number Characterisation of goats	In each the Rendille and the Gabra areas, a representative sample of animals from the respective goat populations are characterised in terms of quantitative traits	05/06 – 11/06	Warui supervised by Kaufmann
2.1.9 Facilitating herder to collect data for characterisation	1 household member (preferably 16 year old children) identified and trained on regular data collection by August 2005	07/05 – 09/05	Warui and enumerators
2.1.10 Data collection from the herds	Data on the traits agreed are collected over a period of three months by December 2005	07/05 – 12/05	Household data monitors (assisted by Mamo and enumerators)
	Additional data collection on traits relevant to herders but easily measured continue from January 2006)	07/05 – 12/05	Enumerators (assisted by Warui)
2.1.11 Analysis of data collected by herder	Preliminary report on the characteristics of the breed prepared by February 2006	07/05 – 03/06	Warui
2.1.12 Feedback of the results of the characterisation (average performance plus variation in performance)	2 feedback seminars in order to identify management practices leading to high or low performance levels conducted for the participating herders including other members of the selected villages in the management unit by February 2006	01/06 – 03/06	Warui
2.2 Development, establishment, monitoring and assessment of CBM frameworks			
2.2.1 Development an action plan building on the outputs form the feedback seminars	At least 5 herders per site agree to try out identified promising management practices by April 2006	01/06 – 06/06	Willing Herders

Activity (codes to tally proposal)	Milestone	Scheduled	By whom
2.2.2 Monitoring	Household data collectors (e.g. about 16 years old) continue to collect data on trait expressions (and indicators) by April 2006	01/06 – 09/07	Household data collectors
2.2.3 Supervision of monitoring	Once a month all household data collectors were visited by enumerators/monitors	01/06 – 09/07	Enumerators
2.2.4 Assessment of result of the trials	Collected data are analysed and the suitable management practices identified and recommended for scaling up in the management unit by May 2006	04/06 – 09/06	Mamo, Isacko support: Warui
2.2.5 Sharing of results among livestock keepers of the different sites	At least three stakeholder meetings for information sharing between the sites conducted	08/05 08/06 05/07	Haro assisted by Warui, Issako, Mamo)
2.2.5 Support promotion of suitable management practices as per recommendation	Herders in each site are assisted to disseminate the suitable management practices for instance through field days (at least 2 field days per site) and exchange visits by June 2006	04/06 – 09/06	Herders assisted by Mamo
2.2.6 Institutionalisation of support for the participatory monitoring, evaluation and dissemination	Until at least end of the project Facilitate stakeholders workshop for sharing research results for up-scaling of best bet practices	01/06 – 09/07	Herders support: MLFD staff lead by Mamo; N.N. stakeholders
2.2.7 Preliminary impact assessment	Collection of livelihood indicators and establish changes of livelihood indicators over baseline status	07/07 – 09/07	Isacko Tura superv.: Pattison
3 Analysis of the economic, market and policy factors influencing the conservation and sustainable use of AnGR <i>(influencing the outcome of the smallstock husbandry on household level)</i>			
3.1 Economic and market analysis			
3.1.1 Survey on market organisation and alternative markets for livestock and livestock product	Literature review and collaboration with other stakeholders eg LINKS, PARIMA etc. is important Data on market organisations and alternative markets for livestock and livestock products are collected and analysed by June 2006..	01/06 – 06/06	MSc student (supervised by Girma and Drucker)
3.1.2 Consumer surveys	Data on consumer preference / competitive advantage for livestock products from Blackhead Persian and Somali goat from Marsabit district are collected and analysed by June 2006	01/06 – 06/06	MSc student superv.: Drucker, Baltenweck

Activity (codes to tally proposal)	Milestone	Scheduled	By whom
3.2 Institutional and policy analysis			
Identification and assessment of policies governing the livestock marketing	Policies documented by June 2007	04/07 – 06/07	MSc student superv.: Drucker, Baltenweck
4 Capacity building and dissemination			
4.1 National capacity building			
4.1.1 Ph D Student	1 PhD student		
4.1.2 MSc Student	At least 3 MSc students		
4.1.3 Training courses	Farmer Field Schools TOT; Characterisation of animal genetic resources within the production system context following the cybernetic control loop	02 - 03/05	ILRI Team, Warui, Ayalew, Kaufmann
4.1.5 Annual review & planning workshop	Addis Ababa, all research Teams	09/05	Drucker, with all research teams
4.2 Dissemination of research results			
4.2.1 Kenya National level workshop	Information is shared with staff of Ministry of Livestock, KARI, University of Egerton, IVP, Hohenheim University and other interested stakeholders, e.g. organisations supporting livestock production (possibly in combination with the CRAC –KARI meeting)	09/05 02/06 02/07	Kahi, with Kenya research team
4.2.2 Scientific papers, etc.	Results are presented in National and international level conferences, scientific papers		
4.2.3 Reporting	Annual & final reports	08/05 08/06 08/07	
4.2.4 Report for community preferably in local language	Information collected and knowledge elaborated during the project documented and translated	08/05 08/06	
4.2.5 Dissemination workshop	Principal partners of the project of each country plus international organisations and donors	07/07 – 09/07	