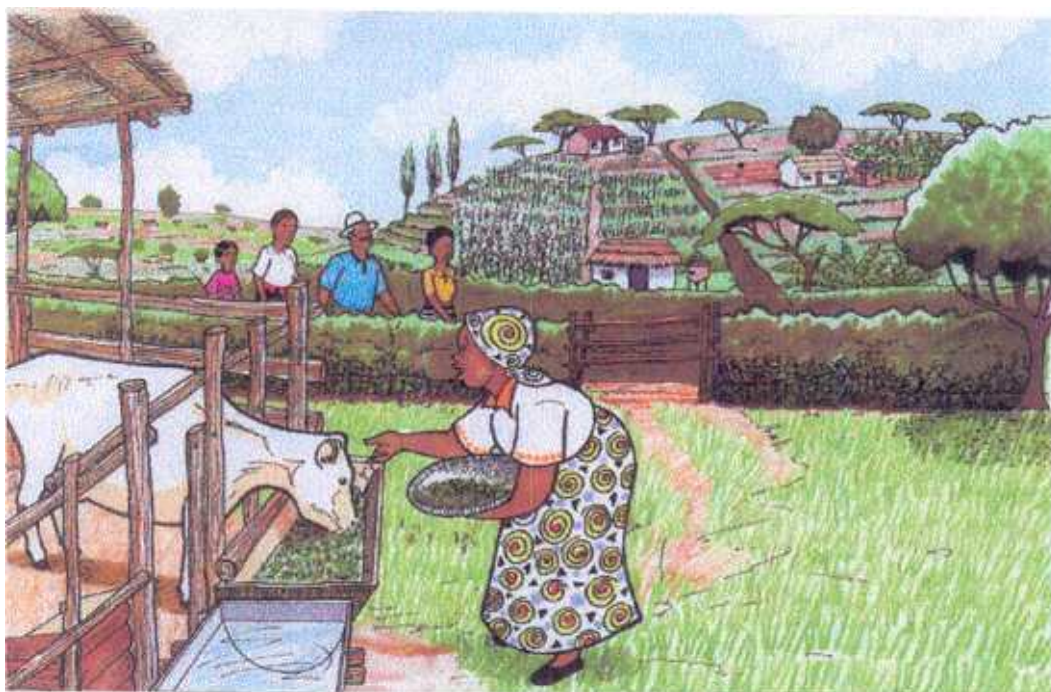


# **Department for International Development Livestock Production Programme**

## **Development, validation and promotion of appropriate extension messages and dissemination pathways**

**Ministry of Agriculture, Agricultural Information Centre  
Mediae Trust**



### ***Livestock Information Needs Assessment, Media Pre-Release Survey Design and Implementation in Kyeni Division, Embu District, Kenya***

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## Objectives of Mission in the Context of the Overall Project Design

The overall objective of the Project is to research the effectiveness of comic-strip booklets and their distribution pathways in delivering livestock-related information to rural populations in the highlands of Kenya. As the first part of this research the specific mission of the Field-Team reported here **was to:**

1. Ascertain current crop and livestock information delivery pathways and determine household preferences for information delivery mechanisms in this area (Kyen Division, Embu District).
2. Establish the livestock information needs of poor rural communities in a densely populated, agriculturally high potential area of Eastern Province, Kenya (Kyen Division, Embu District).
3. Design and implement Stage 1 of an Extension Media Impact Assessment Study (Media Pre-Release Survey).

Shortly after conducting the Pre-Release Survey, three comic-strip booklets, previously prepared by the Project-Team for similar farming systems in Kenya, will be released into communities in Keny Division though the channels identified in this report (Stage 2).

Four weeks after the release of these booklets Stage 3 of the Extension Media Impact Assessment Study (Media Post-Release Survey) will be carried out in Keny Division to assess the efficiency and cost effectiveness of the distribution pathways and the effect booklets have upon farmers' technical knowledge.

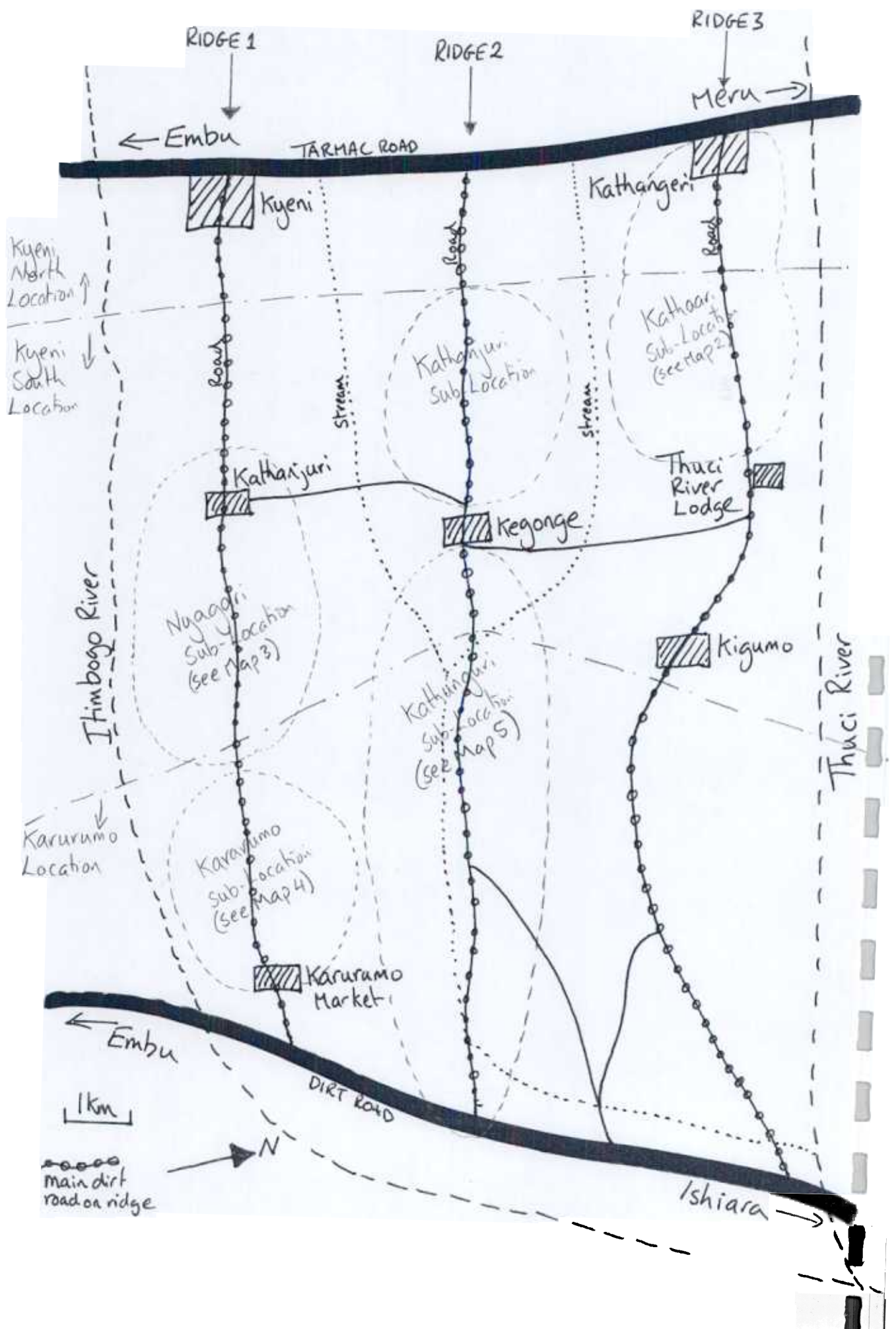
Establishing the livestock information needs of the communities in Keny Division will allow six more booklets to be prepared on issues identified by Keny communities. The impact of these booklets on farmers knowledge and attitudes will also be tested by the Project.

## Rationale for Choosing the Research Site

Embu District was selected for this study since it is a benchmark research site within the African Highlands Initiative (AHI) and therefore has social and climatic characteristics representative of a large areas of the East African Highlands. The overall goal of the AHI is to "sustainably enhance productivity within intensive land-use systems by working with farmers to evolve policies and technologies based on a better understanding of the natural and socio-economic environment, and in collaboration with the local communities". The Purpose of the present Project, "to develop and promote appropriate extension messages and dissemination pathways" through "the production of illustrated stories and other participatory media judged useful for dissemination through primary schools or other groups", is therefore entirely commensurate with efforts to attain the overall goal of AHI.

Keny Division and, in particular, two administrative Locations within the Division were chosen for the present Project; Keny South and Karurumo Locations. These Locations typify the main coffee growing zones in the East African Highlands lying at an altitude between 1400 and 1800 m, annual mean temperature between 18.9

Map 1: Road, River and Settlement Layout of Study Site



and 20.1 °C and bi-modal rainfall averaging annually between 1200 and 1800 mm. Population density in the Division is high, averaging 670 persons per cultivated km<sup>2</sup>, and therefore mean farm sizes are small (<1 ha/household). Kyeni North Location, the third Location of Kyeni Division, which is in the Tea zone was excluded from the Project.

Kyeni Division was also selected as an area where families, rendered landless through intergenerational sub-division of farms and finding no off-farm employment, are known to be emigrating to lower potential, semi-arid Districts nearby in search of land (IT-Kenya Pers. Comm.). Other research by IT-Kenya in Embu District indicates that ownership of livestock can sustain the viability of the smallest land units by providing a source of income (milk sales) and maintaining soil fertility (through manure) making emigration less of an imperative. Therefore, efforts to more effectively provide information to raise the productivity of livestock in Kyeni Division should assist in securing the livelihoods of the poorest families.

### Geographical, Agricultural and Social Overview of the Research Site

Map 1 shows that general road layout of the research site. The site is bounded by the Embu-Meru Road (tarmac) and the Embu-Ishiara Road (dirt road) and the Itimbogo and Thuchi Rivers.

Three dirt roads running along parallel ridges for approximately 11 – 16 km connect the two main roads and represent the basic units for the research:

**Ridge 1 (R1)** runs from Kyeni to the Ishiara Road;

**Ridge 2 (R2)** runs from the Embu-Meru road (near Mofu) to the Ishiara Road;

**Ridge 3 (R3)** runs from Kathangeri to the Ishiara Road.

In general, cropping systems along the first 8 km of each ridge are typical of the main coffee zone with the following crops predominating: coffee, maize, beans, bananas, cassava, paw-paw, passion fruit, mango, vegetables and napier grass. Eucalyptus and Grevillea trees are planted on the boundaries of fields. The remaining distance along each ridge road to the Ishiara road is drier. Pigeon pea and cassava become dominant crops. Population density in these drier areas tends to be lower along all three ridges.

The Ministry of Agriculture (MoA) Divisional Office in Kathanjuri provided the following statistics concerning the whole of Kyeni Division (comprising Kyeni North, Kyeni South and Karurumo Locations):

Area of Division	97 sq km
Cultivated area	79 sq km
Public land	114 ha
Swampy area	45 ha
No of households	8629
Population	53,000
Average household size	6
No of Administrative Locations	3
No of Administrative Sub locations	10
No of rivers	5

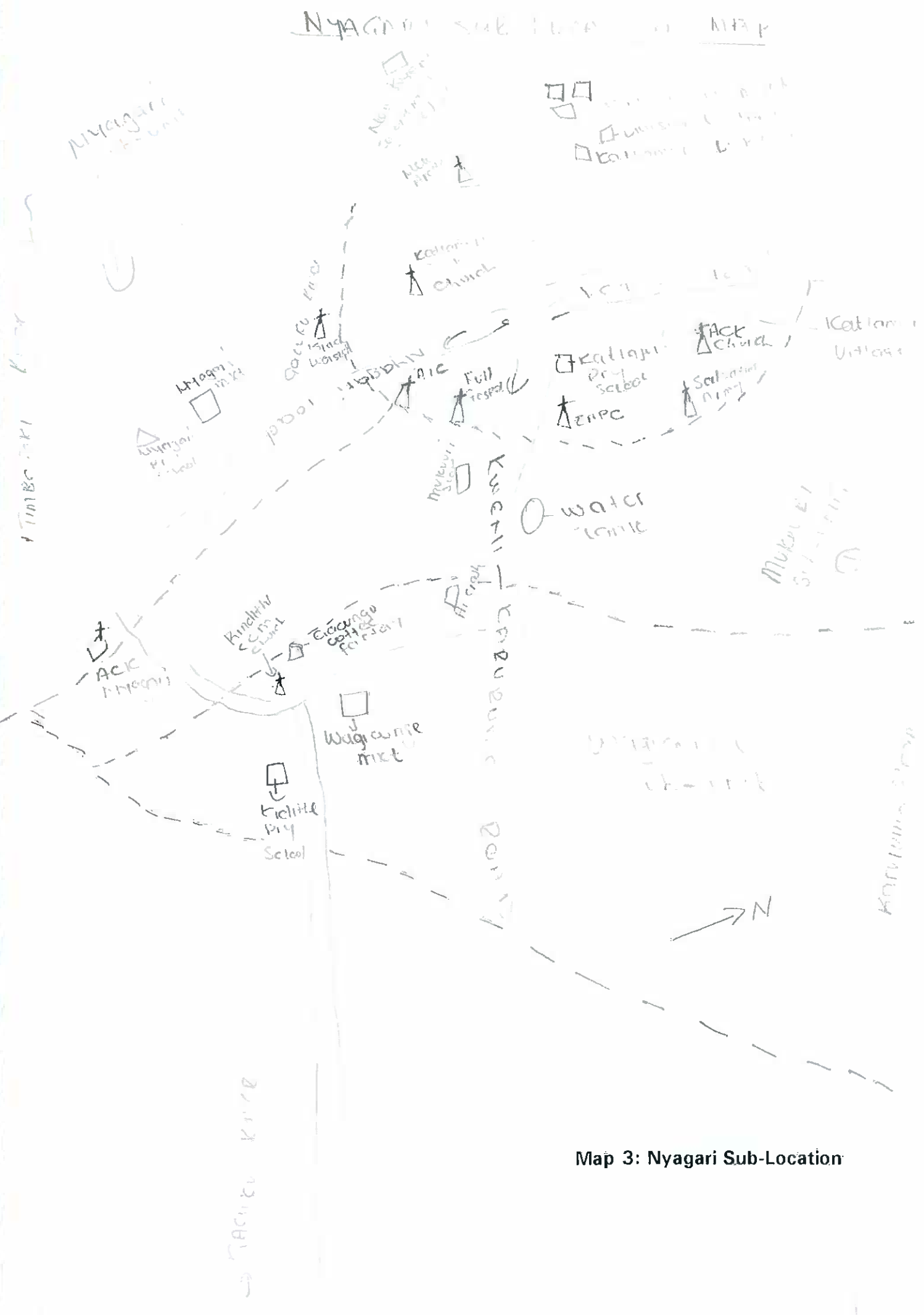
KA<sup>+</sup> HAKI SUB-LOCATION  
THUC RN

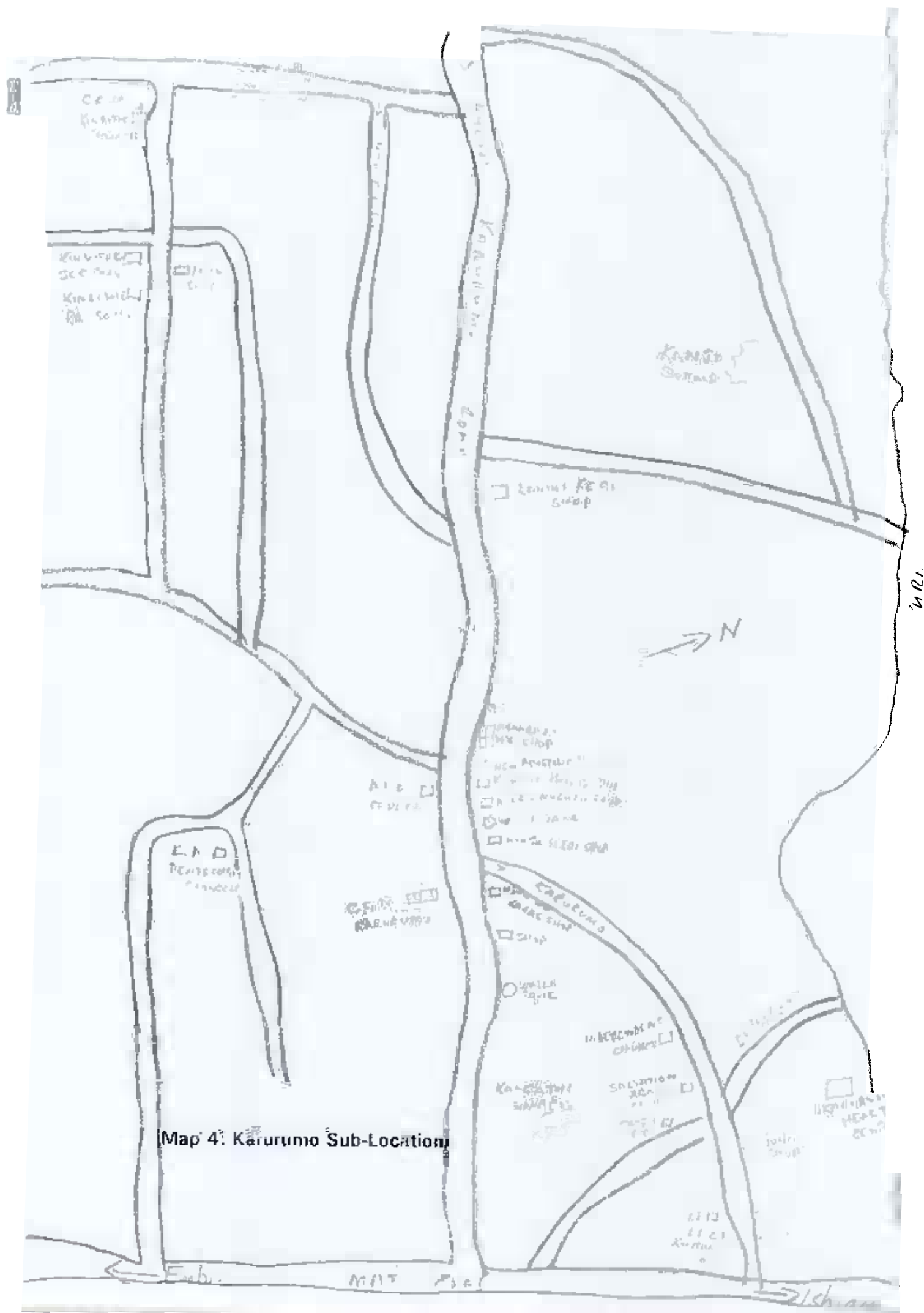


### Map 2: Kathaari Sub-Location

↑ NORTH











The most numerous livestock category in Kyeni Division is poultry. MoA statistics for 1998 estimate 22,000 birds in the Division. Local goat breeds and cross-bred cattle (mainly Ayrshire crosses) dominate amongst ruminants. In 1998 there were 3550 goats and 2700 dairy cows (figures were not available for local breeds or cross-bred draft bullocks, which appeared numerous). Sheep and pigs are few in number by comparison, only 630 and 480 respectively. In the drier areas towards the southern end of the ridges, bee keeping was more prevalent with 790 hives in total. Numbers for rabbits and other poultry were not available.

The population of the three ridges was ethnically mixed with Embu and Meru as the major groups. Most households encountered spoke KiEmbu, KiMeru and KiSwahili. Young adults and school-aged children spoke English.

A general observation of the research team was that wealth gradients (rich to poor) ran from R3 to R1 and from the Embu – Meru Road down to the Embu – Ishiara Road. An interesting observation was that the active farming community was composed of young and old alike. This contrasts with many rural communities where young adults are notable by their absence through migration to urban areas.

## Methodology

For the purpose of the current mission six Focus-Group discussions with communities were conducted at five different Sub-Locations in Kyeni South and Karurumo Locations. Meetings were held at Nyagori, Karurumo, Kathunguri, Kathanjuri Sub-Locations and two meetings were held at Kathaari Sub-Location. The two meetings at Kathaari comprised a group from that Sub-Location followed by a group from Kigumo Sub-Location. Map 1 indicates where five of these Sub-Locations are approximately sited. The boundaries of Kigumo Sub-Location (bottom right-hand corner) are not shown due to lack of information.

Groups either formed informally or, in two cases, made up of women's groups, were well attended by numbers ranging from 8 to 26 participants. The Field-Staff felt that a good balance of wealth, gender and age had been attained even though the groups were formed with only one day's notice.

The activities performed and discussions held by the Focus-Groups is outlined in Appendix 2. The first activity was to map the area represented by the Focus-Groups to show key geographical features and infrastructure. Maps 2 to 5 show attempts made by the Groups to map four areas. These approximated to Kathaari, Nyagari, Karurumo and Kathuguri Sub-Locations. The map drawn by the Focus-Group in Kathanjuri was unintelligible and so not included in this report. Although representatives from Kigumo Sub-Location were included in discussion groups a map was not drawn of the area.

Discussions and mapping exercises covered most of the study area. Thus the Field-Team were confident that information needs and delivery issues pertaining to farming systems in Kyeni South and Karurumo were well captured. The experience of the Field-Team in conducting these exercises enabled the concerns of less prominent members of the Groups to be heard. This ensured that information delivery issues of relevance to women and the poor were also considered.



## Objective 1 - Ascertain information delivery pathways and household preferences for information delivery mechanisms

Focus-Groups were asked to list all actual and possible sources of information on crops and livestock available to them in Kyeni South and Karurumo Locations. These are detailed below:

**All Sources:** Figure 1 shows that the communities could list 23 actual or potential sources of information. Each information source is shown on the diagram as a circle. A wide range of information suppliers were identified. Tables 1-5 provide listings of the MoA staff, crop/livestock Self-Help groups, churches, other social groups (including womens' groups) and primary schools in the Sub-Locations. Other sources of information include, *inter alia*, the Chief of the Location, agro-vet companies, agro-vet shops, radio and neighbours.

**Past and Potential Sources:** Five sources of information shown in Figure 1 in green: primary schools 4K clubs, Train and Visit Contact Farmers (T&V), Farmer Training Centres (FTC), human health clinics and coffee/dairy cooperatives were considered to have been important in the past (4K, T&V and FTC) but were now not functioning whilst clinics and cooperatives, although present in the area, had yet to become significant information sources for the poor.

**Actual Sources:** Orange and red circles indicate functioning sources of information. Those with close proximity to the centre of the diagram indicate those considered to be the most important sources of agricultural information to the poor. By comparing the size of circle this gives a rough idea of the relative importance of each source.

**Preferred Sources:** (In pale yellow shaded area) Most preferred were considered to be womens' groups, ACK (Anglican Church of Kenya) and CCM (Catholic Church Mission) demonstration plots/AI/vet services<sup>1</sup>. Church discussion groups, although not noted as an active source of farming information were considered by all groups to have great potential for this purpose. The popularity of womens' groups as a source of information is probably related to the fact that these groups were numerous in the Division and the majority of households were members. Note that most arrows in the diagram are green, indicating a flow of agricultural information. However, the very thick, two-way arrow between womens' groups and households is black. This is because, although a preferred source of information, this pathway is not usually used for agricultural information but is valued as a route by which households obtain knowledge on family health and nutrition.

CCM pamphlets were deemed useful but too costly at KSh 30/each. MoA Field Staff were assigned high value but it was felt that Field Staff tended to associate more with the wealthier sections of the community rather than the poor. MoA field days were more useful to the poor in gaining information from the MoA. However, because of reduced funding these were now infrequent (N.B. communities felt that three field days per year would be desirable. Currently they received one/year at

<sup>1</sup> ACK and CCM livestock services were considered important even though their geographical coverage was limited. It was assumed that this was due to the perception by the community that this form of information delivery pathway was likely to be the most effective if the Project was seeking to promote information delivery mechanisms.

best). Radio could be useful as long as money was available for batteries and only when the household knew that relevant programmes were scheduled (few households could purchase a newspaper with gave KBC scheduling). The Chief's Baraza is considered to be a useful channel for information. Despite this, the Chief's views were that since the advent of multi-party-ism in 1992 the attendance at barazas had declined. One Chief said that he could no longer coerce communities to attend implying that people disliked the meetings. These opinions appear somewhat contradictory.

**Less-preferred sources:** In similar studies conducted elsewhere poor farmers identify neighbours as a valuable source of information. However in Kyeni Division where MoA Field Staff tend to favour the wealthier households and where Focus-Groups talked of limited contact between the rich and poorer sectors of the communities farmers felt that there was little neighbour-to-neighbour transfer of information.

Focus-Groups were suspicious of representatives from agro-vet companies and agro-vet shop keepers as they felt that their advice was biased.

KARI Embu and Church Heifer-on-Loan schemes were considered by some to be doing useful work in the area but that they were involved with too few households.

MoA Divisional Staff were known by households to exist but were rarely seen by the poorest households. This is because, as they explained, budgetary constraints prevented direct farmer-contact. Most of their work was claimed to be effected through Womens' Groups and Self-Help groups.

Self-Help Groups were thought to be an ineffective delivery pathway since these were often only formed when community participation was required for a specific task eg road maintenance.

The Embu Agricultural Society of Kenya Show (ASK) was said to be too expensive to poor households to attend.

School curricula could be an effective method for transferring new knowledge to rural communities but it was felt that, at present they were inadequate being too much oriented towards theory and not practice.

Secondary School Young Farmers Clubs (YFCs) still existed in some schools but were very weak and not thought useful as a means of transferring information to households.

**Direction and Strength of Information Flow:** Communities expressed a preference for information sources with which they could interact. The direction of arrows in Figure 1 shows how communities perceived the direction of flow of information. Two-way arrows indicate where farmers felt they could actively discuss problems with experts. One-way arrows indicate where the flow of information was one way – from source to the farm. Heavy arrows show where the flow of information was considered strongest. ACK/CCM Crop Demonstration Plots/Livestock Services and Womens' Groups were the sources from which information flow was considered strongest. The fact that these were also "interactive" sources of information and readily accessible to most people also explains why these were considered the favoured sources. Dotted arrows show varying degrees of weakness in flows from

other sources of information. It is worth noting that even though a source of information can be "preferred" it may not currently be strong source of information eg Chief's barazas and MoA field staff.

Some sources of information did not contact farmers directly. For example Agro-vet companies exploit rare MoA field-days to transfer information to households. This is advantageous to the company because not only is this a logistically simple way to access many farmers the presence of MoA staff serves to endorse (perhaps unwittingly) their product.

**Preferred formats for printed information:** In anticipation of the planned release printed material into the community by this Project the Focus-Groups were asked in which languages should the material be produced. Groups said that they gave first preference to english as there were usually young people in the household conversant in this language. Second choice was given to kiswahili. The Groups thought the material should be well illustrated with simple line drawings, widely available and not costing more than KSh 10 each.

**Table 1. MoA Divisional and Locational Staff in Kyeni South and Kararumo Locations, Kyeni Division**

Administrative level of MoA Staff	Number of staff and subject matter covered	Transport available
Kyeni Division	5 Divisional Staff covering crops and livestock	2 motorcycles
Kyeni South Location	6 Field Staff covering crops and livestock	Few bicycles
Karurumo Location	5 Field Staff covering crops and livestock	Few bicycles

**Table 2. Crop and livestock organisations in Kyeni South and Kararumo Locations, Kyeni Division<sup>2</sup>**

Organisation	No. of members	Location
Mbukori Self-Help Group (crops group)	46	Kyeni South
Mgambari Self-Help Group (crops group)		
Mwitheria Self-Help Group (crops group)		
Progressive Women's Group (crops group)		
Gititou Self-Help Group (crops group)		
Karai Self-Help Group (crops group)		
Karungu Womens' Group (dairy group with own AI and Vet Service)	37	Kyeni South
Kathegeri Self-Help Group (dairy group)	58	Kyeni South
Njuki Sekf-Help Group (dairy group)	31	Kyeni South
Private vet (Dr Runyenjes) provides AI (mainly through Karungu Womens' Group) using semen provided by American Breeder Services (ABS)	Unknown number of customers	Whole of Kyeni Division
AI also provided by Embu Catholic Mission (ABS-sourced semen)	Unknown number of customers	Whole of Kyeni Division
Karurumo Polytechnic School bee-keeping group	Unknown number of members	Karurumo

<sup>2</sup> The communities expressed a strong interest in dairy goats but as yet none were to be found in the two Locations. Interest stemmed from the Integrated Small Livestock Project (GTZ, based in Nyeri) which had established a dairy goat group in Kyeni North.



**Table 3. Churches in Kyeni South and Karurumo Locations and congregation size**

Location	Sub-Location	Church	Congregation
Kyeni South	Nyagari	Kathanjuri Catholic Church	1000
		New Apostolic Church Kathanjuri	?
		ACK Kathanjuri	150
		EAPC Kathanjuri	100
		The Salvation Army Kathanjuri Corps	60
		AIC Kathanjuri	40
		Kathanjuri Baptist Church	
		Full Gospel Churches of Kenya	50
		The Christian Worship Church	50
		Jehovah's Witness (Kingdom Hall)	30
		ACK Nyagari	100
		CCM Kinthithe	500
		CCM Thau	
		New Apostolic Church Thau	60
		NICA Thau	?
		Grace Bible Church	?
		Israel Worship Church	30
		Pubtist Church	30
		New Testament Church	30
		Church of God	50
		Redeemed Church	30
Kyeni South	Kathanjuri	NICA Kathanjuri	?
		New Testament Church of God Kathanjuri	?
		Redeemed Gospel Church – Kathanjuri	?
		ACK Karungu	?
		ACK Gakwegori	/
		SA Kathariro	?
		Theosophical Church – Kathanjuri	?
		AIPCA	?
		SA Corps Kyeni	?
		Karungu Angelic Church of Kenya	200
		Kathanjuri Catholic Church	150
		New Apostolic Church	100
Kyeni South	Kigumo	Bapatist Church Ngurukiri	?
		ACK Nguyori	?
		New Apostolic Nguyori	?
Kyeni South	Kathari	Kenya Redeemed Church	40
		National Independent Church of Africa	80
		Faith Homes	
			15
			20
		Glad Tidings, Evanguari	5
Karurumo	Kathunguri	Catholic Church	300
		ACK	300

**Table 4. Social Groups in Kyeni South and Karurumo Locations and active membership**

Location	Sub-Location	Group	Membership
Kyeni South	Nyagari	Nyagari Youth Self-Help Group	30
		Ariagiciku Women's Group	25
		Kameme Women's Group	30
		Gwakameme Women's Group	30
Kyeni South	Kathanjuri	Karungu Women's Group	50
		Kyeni Ongia Women's Group	50
		Murugi Women's Group	22
		Uturiri Women's Group	30
		Kyeni Thayo Women's Group	120
Kyeni South	Kigumo	No data	No data
Kyeni South	Kathari	Karyana Women's Group	25
		Kandara Women's Group	30
		Mukugi Women's Group	40
		Kanyaga Women's Group	15
		Kathi Mbogo Women's Group	30
		Wambugi Women's Group	20
		Kathaari Christian Women's Group	50
		Kambokia Women's Group	20
		Kathari Women's Group	100
Karurumo	Kathunguri	Kamutai Women's Group	25
		Ndumoita Women's Group	16
		Askii Women's Group	20
		Kathunguri Women's Group	45
		Mwikuri Self-Help Group	25
Karurumo	Karurumo	Karigiri Self-Help Group	32
		Ngambari Women's Group	27
		Karari Women's Group	20
		Kindithe Women's Group	25
		Marathon Women's Group	15
		Kamabindi Mwitethia Self-Help Group	30
		Kamabindi Umenyereri Wa Michi	20
		Kagumori Self-Help Group	100
		Karai Ka Mutua Mathaga Self-Help Group	30

**Table 5. Primary Schools in Kyeni South and Karurumo Locations and number of pupils (1999)**

Location	School	Total number of pupils
Kyeni South	Karago	105
	Karungu	173
		431
		475
		491
Karurumo	Kariru	429
	Kabeti	257
	Kiamboa	331
	Kathunguri	227
	Kinthithe	658
	Karurumo	663
	Kasafari	164
	Kandete	211
	<b>TOTAL</b>	<b>5973 pupils in both Locs.</b>

## **Objective 2: Establish livestock information needs**

The following is a list of issues (by order of species) derived from discussions with the Focus-Groups. Alongside the consideration of each species is a note as to whom the issues were the greatest concern to and the area where these concerns were most significant.

### **Bees (mainly the concern of women in Karurumo Location)**

How to attract and retain a swarm  
 Alternative feeds now that flowers are less in number than 15 years ago  
 Best honey harvesting regimes  
 Identifying and breeding docile bee types  
 Improved hive construction  
 Honey processing  
 Hive spacing

### **Poultry (concern of the whole community in both Locations)**

How to establish cockerel-exchange programmes and how to select superior birds  
 Pest/Disease diagnosis, control and treatment using locally available medicines  
 Alternative feeds for improved breeds  
 Housing improved of local breeds for improved productivity

### **Rabbits (mainly the concern of the youth in both Locations)**

- Disease control
- Identification of improved breeds
- Feeding practices to avoid toxicity

Housing for improved productivity  
Promotion of rabbit consumption so as to stimulate market

**Goats** (mainly the concern of poorer households in Karurumo Location (drylands))

How to upgrade local goats for better milk production (using "Group Approach")  
How to milk local goats without compromising kid survival and growth  
Planted fodders and better housing types for dryland areas (since free-range grazing is increasingly being forbidden farmers are adopting cut-and-carry feeding)  
Diagnosis, control and cure of pests and diseases using locally available medicine

**Sheep** (not considered a priority species)

Prevention of diseases causing diarrhoea (farmers believe sheep to be the most disease prone animal)

**Pigs** (mainly the concern of men in Kyeni South Location)

- Promotion of pig meat consumption so as to stimulate market
- Viable local alternatives to expensive commercial feeds particularly for sows
- Better breeds to suit local conditions
- Improved housing to improve productivity

**Draft Cattle** (men in both Locations)

Better harnessing for exotic (humpless) cattle

**Dairy Cattle** (all sectors of the community in Kyeni South)

- Disease identification and prevention  
Alternative (local medicines) pest and disease control particularly for FMD, ECF and Helminthosis
- Control of causes of mastitis and lameness
  - Strategies to reduce transmission of zoonotic diseases eg brucellosis
- Viable alternatives to AI for upgrading dairy cattle
- Merits of suckling versus bucket feeding for calves
  - Drought tolerant fodders (alternatives to napier grass)
  - How to make better use of maize stover as a feed

**Prioritised Issues:** The Field-Team discussed the issues raised by the Focus-Groups and attempted to prioritise issues for each of the species/categories of livestock given above. The following are suggestions for the topics for the next six illustrated pamphlets to be produced by the Project:

- **Bees:** Bee management focussing on how to attract and retain swarms in areas where flower numbers are declining.

**Rabbits:** Promotional literature of the multifunctional uses of rabbits (eg culinary and skins) so as to stimulate the local market.

**Poultry:** Exploiting local cures and indigenous preventative medicine /management for local and improved birds.

**Goats:** Upgrading strategies for local goats so as to improve milk yield for human consumption.

**Sheep:** Prevention of and local cures for diseases causing diarrhoea.

**Pigs:** Alternative feeds (ie not commercial feeds) for improving sow performance

**Draft cattle:** Better harnessing for humpless cattle.

**Dairy cattle:** Disease prevention and diagnosis.

### **Objective 3: Design an extension media Impact Assessment Study and train MoA Field Staff in the implementation of Stage 1 of this Study**

In order to assess the impact of releasing three, previously prepared illustrated booklets covering 1) dairy cow health and feed management, 2) sheep health and 3) manure management (see Introduction) the Project set out to assess the level of knowledge already existing within the communities on these subjects. To do this a "Pre-Release Survey" was designed as the first stage in an Extension Media Impact Assessment Study.

A short questionnaire was drafted and tested by the Field-Team (see Appendix 3). The questionnaire is divided into four sections:

- A. Household and Farm/Livestock Information (to assess wealth rank and agricultural endowments)
- B. Household affiliations (linkages with formal and informal organisations)
- C. Sources of Farming Information (where do households currently get farming information from and which do they perceive as their most preferred sources)
- D. Pre-release Knowledge Testing.

Sections A, B and C are self-explanatory and are included in an attempt to gather data on factors upon which information uptake by a household may depend eg membership of organisations and wealth rank *inter alia*.

Section D consists of a series of eight questions pertaining to the information contained in the three existing booklets: dairy cows (Questions 1 and 2), sheep (Questions 3, 4 and 5) and manure (Questions 6, 7 and 8). (Despite the fact that the booklets were not prepared specifically for Kyeni Division the nature of farming systems in the area make the information in the booklets and the questions in the pre-release survey relevant to the majority of households in the two Sub-Locations). Answers are provided in the adjacent columns and a space is given for any other (definite) answer given. The enumerators were sensitised to the range of possible answers that might be interpreted as the set-answers given as opposed to radically different answers that should be entered into the (penultimate – "Any other answers given" column). If the respondent could give no answer then the



enumerator was permitted to prompt the set-answers marking the fact that the answer was obtained by prompting in the last column.

The correct answers to each of the eight questions can be obtained by reading the text in the three booklets. It was hypothesized that when the booklets are released into the community (through the various channels shown in Figure 1) the impact on community-knowledge will be measurable by asking the same questions again to households in the Study Locations in a post-release survey (assuming that knowledge was less than perfect prior to the booklet release).

**Implementation of the Pre-Release Survey:** The questionnaire was administered to 60 individual households per Ridge (180 households in total) over the space of 1 week by sampling approximately every 3<sup>rd</sup> house on the right hand<sup>3</sup> side of the Ridge road starting 2-3 km in from the main Embu-Meru Road so as to avoid the influence of the urban areas clustering around the tarmac road. The enumerators moved down the Ridge roads in the direction of the Ishiara Road and were trained to take into account households located off the main ridge road within the sampling frame. Adopting this methodology enabled the enumerators to interview households in all Sub-Locations covered in the Focus-Group meetings.

#### **Proposed Strategy for Phase II – Release of Livestock Media**

Media (three pre-prepared booklets) should be released through various organisations along the three ridge-roads in the Sub-Locations covered by the Focus-Group discussions and the Pre-Release Survey.

**QUESTION:** Through which organisations should the media be released and how many booklets are required?

**ANSWER: THROUGH PREFERRED SOURCES:**

Womens' Groups (30 Groups) – Table 4 lists 25 womens' groups in 5 sublocations. No data exist for womens' groups in Kigumo Sub-Location. However based on the mean number of womens' groups in the other five Sub-Locations one can assume there are 5 womens' groups in Kigumo.

The average membership of these groups is 35. For 30 groups this would require a total of 1056 of each booklet

**Churches (81 churches)** – Although data in Table 3 are incomplete, church membership figures however do exist for 52 churches. In these, average membership is 145. This average figure multiplied by 81 churches comes to 11,745. Households may be represented several times where all adults in the household attend churches. As a rough estimate, assuming that two adults per households attend church, then 5880 households (11,745/2) might be attending churches in the two Sub-Locations.

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<sup>3</sup> Note that the Post-Release Survey should therefore be conducted on the left side of the Ridge roads (moving from the Meru road down to the Ishiara road)

An alternative way of calculating this is to use figure of 8629 households in Kyeni Division. If 45% of these households are in Kyeni North (Chief's estimate) this leaves 4746 households in the other two Sub-Locations. If the opinions of key informants are accepted, that "all households belonged to a church", then there is a discrepancy of about a 1000 between both estimates of the number of church-going households 5880 versus 4746). A halfway figure of around 5300 copies of each booklet might be required for church distribution.

**MoA Field Days:** these were occurring too infrequently for them to be targetted as a release-pathway for this Project. See MoA Field-Staff below

**Radio:** not applicable for the needs of the Project

**Chief's baraza:** Baraza's are infrequent. It is suspected that the Chief's office, if supplied with extension booklets would pass them to the MoA Divisional Extension Staff in an adjacent office for this reason there is probably no point in targeting the Chief's Office as a release-pathway.

**MoA Field-Staff:** MoA staff state that they are increasingly working through community groups such as women's groups. However, where Field-Staff still have individual contact with certain farmers they report being able to contact approximately five per day. Given that community groups will be supplied with the booklets directly by the Project it is suggested that the 11 field staff in Kyeni South and Karurumo Locations be supplied with total of 1650 copies of each booklet to test the effectiveness of the individual contact approach (30 days between release of booklets and post-release survey x 5 farmers per day x 11 staff = 1650). Booklets should be supplied to the Divisional Office in Kathanjuri (as the official route for delivery of material to field-staff) with the recommendation that 150 copies of each booklet be supplied to each member of the field staff.

## **ANSWER: ALSO THROUGH LESS PREFERRED SOURCES**

**Schools:** Since the booklets were originally intended to be aimed at pupils in Standard 4 the number of booklets required for schools can be estimated by taking the total number of pupils given in Table 5 (5973) and dividing by 8 (primary schools are composed of 8 grades). Thus the 16 schools should be supplied with a total of 750 – 1000 copies of each booklet.

**Self-help groups:** Average membership of self-help groups is 40. Table 2 and 4 list 16 self-help groups thus requiring a total of 640 of each of the booklets

**KARI Embu:** A total of 150 of each of the booklets (similar to the MoA Field Staff) should be delivered to the ICRAF extension specialist based at KARI (Charles Wambugu)

**Agro-vet Companies:** None were identified as being active in the area suggesting that no booklets need to be supplied.

**Church Heifer-on-Loan Scheme:** See booklet allocation to Churches above

**Agro-vet Shops (or other shops):** Time was not available for collection of figures on the total number and type of shops in the Sub-Locations. Maps 2 – 5 indicate the sites of some individual shops but also the locations of markets containing a multitude of shops. For distribution of the booklets the Field-Team might arbitrarily pick 10 shops per Sub-Location at which to deposit 50 copies of each booklet for free distribution. Total 1000 copies.

**MoA Divisional Staff:** See above (MoA Field Staff)

The following Table provides a summary of the numbers estimated above and, in addition, suggests to whom the booklets should be distributed.

**Table 6. Summary of booklet distribution points, numbers to be distributed and to whom.**

Distribution Point	Total number of each booklet to be distributed in Kyeni South and Karurumo Locations	To whom should the booklet be distributed
1. Womens' Groups	1056	Chairperson
2. Churches	5300	Minister/Priest
3. MoA Field Staff	1650	MoA Divisional Office
4. Primary Schools: 4 <sup>th</sup> Grade	1000	Headteachers or Standard 4 teachers
5. Self-help Groups	640	Chairperson
6. KARI Embu	150	KARI Extension Specialist
7. Shops	1000	Shopkeepers
<b>TOTAL of each booklet</b>	<b>10,796</b>	

#### Concluding Point for Discussion by the Project Team

**PROBLEM:** There is concern that 32,388 (3 booklets x 10, 796) booklets released in two Locations with a total of only 8,629 households represents extreme oversupply in terms of what could be feasibly achieved by MoA or other local suppliers of information. Such a "campaign" approach cannot fail to have some impact. The question remaining then would be has the Project demonstrated a sustainable information supply strategy. (Additionally, the Project has only budgeted for a total of 6000 copies of each booklet to be printed).

The number of booklets could be reduced using several strategies:

- 1 By concentrating on organisations and households in Kyeni South Location only for distribution and the post-release survey. Each organisation would still receive the number of booklets to match its membership or clientele. (Kyeni South is the obvious choice since it is a High Potential farming area and the contents of booklets released in this part of the study have more relevance there than in Karurumo (dryland farming)).

2. By reducing the number of booklets provided to each of the distribution points in both Locations in proportion to the current allocation given in Table 6.
3. By giving equal but reduced numbers of booklets to each of the seven distribution points given in Table 6.

Strategy 1 will still result in the swamping of Kyeni South with booklets. Strategy 2 will leave all distribution points undersupplied with booklets. Strategy 3 will drastically under- or over-supply distribution points.

**THE PROJECT TEAM URGENTLY NEEDS TO DECIDE WHICH OF THESE STRATEGIES (OR PERHAPS ANOTHER) TO ADOPT.**

## Appendix 1: Itinerary

Date	Activity
23 <sup>rd</sup> August	<b>Nairobi:</b> Meeting with Rose Kinotti (AIC) and David Campbell (Mediae) – Nairobi. David Campbell seeking GoK MoA clearance
24 <sup>th</sup> August	<b>Nairobi:</b> Meeting at Kilimo House (Ministry of Agriculture) with Mr Wanga (Senior Deputy Director (Extension) MoA to explain mission and brief Permanent Secretary.
25 <sup>th</sup> August	<b>Nairobi:</b> Awaiting GoK clearance for Project. Completed editing draft of Wambui #3 with Dev Comm
26 <sup>th</sup> August	<b>Embu:</b> Meeting with Provincial Director of Agriculture and Livestock Extension (Deputy) Mr D.K.Waithaka. Meeting with District Agriculture and Livestock Extension Officer Mr D.M. Mwaniki. <b>Chuka:</b> Meeting with with Divisional Agriculture and Livestock Extension Officer Mrs Esther Mugambo <b>Meru:</b> Meeting with with District Agriculture and Livestock Extension Officer Mr Ngitha. Travelled to Meru South, Central and North Districts to alert Project Field Team (#6 MoA frontline extension staff) and the Divisional Agriculture and Livestock Extension Officers of work programme.
27 <sup>th</sup> August	<b>Embu:</b> Field site (Kyeni South and Kararumo Locations, Kyeni Division, Embu District) reconnaissance with Mr Mburu and Mrs Kinotti (AIC). Meeting with Field Team at Izaak Walton Inn, Embu
28 <sup>th</sup> August	<b>Kyeni South Location:</b> Individual farm PRAs
29 <sup>th</sup> August	<b>Embu:</b> Preparation of PRA Notes and draft Pre-Release Questionnaire
30 <sup>th</sup> August	<b>Kyeni Division:</b> Meet Chiefs of Kyeni South and Kararumo Locations. Organise Focus-Group Meetings with communities.
31 <sup>st</sup> August	<b>Kyeni Division:</b> Hold six Focus-Group Meetings
1 <sup>st</sup> September	<b>Embu:</b> Focus-Group feedback session with Field Team. Re-drafting of Pre-Release Questionnaire
2 <sup>nd</sup> September	<b>Embu:</b> Test Pre-Release Questionnaire with Field Team <b>Nairobi:</b> Final briefing meeting with Mrs Kinotti. Collection of penultimate version of Wambui #3 from Dev Comm.
3 <sup>rd</sup> September	Leave for UK (KQ116)



## Appendix 2: Focus-Group Notes

### MoA Agricultural Information Centre (AIC) Information Needs Assessment PRAs in Kyeni North and South Divisions, Embu District (30/8/99 – 2/9/99)

#### Objectives:

1. To find out the livestock information **needs** of the communities
2. To find out **where** they get livestock information
3. To find out **how** they prefer to get livestock information

#### Activities:

Field staff (Kenneth, Lucy, Jewa, Tabitha, Obeid and Mercy) will be allocated in pairs to one of the three roads leading from the main Embu-Meru road to the Ishiara road.

In pairs, the field staff (x6) will hold two focus-group meetings (on Tuesday 31<sup>st</sup> August ) at two points along the road they have been allocated to. One of these meeting points will be about 3 km in from the main road the next will be about 3 km further down.

(Groups and meeting points will be decided in consultation with Rose Kinotti).

*(Please make note of the composition of the group (gender, age categories and wealth)*

**The information below is only a checklist to assist you in the discussion. Please do not feel constrained by the list – allow the discussion to cover all issues the community feels is relevant**

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During the group meetings the following things need to be achieved:

#### 1 Draw a community map showing:

- Roads and Rivers/Streams
- Villages
- Administrative offices
- Schools/colleges
- Churches/Mosques
- Clinics/hospitals
- Dukas/shopping centres/markets
- Cooperative societies/produce collection centres (eg for tea, coffee, milk macademia etc)

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#### 2. Ask about:

- The sizes of schools and which areas do they serve
- The size of the church congregations

- The areas served by clinics and the type of people they serve (children, mothers or all the community)  
What proportion of the community are active cooperative members  
The number of informal groups (eg womens' groups, self-help groups) in the community and the names/adresses of the chairpersons. Find out how big the groups are.

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**3. Draw a diagram/make a list showing where the community currently gets farming (crops and livestock) information from**

As a check you may need the list below.

- Government Agricultural Officer
  - Government Livestock Officer
  - Government Veterinary Officer
- (If these are considered important sources of information find out whether information comes directly from frontline staff or the Divisional staff (DLPO, DAO or DALEO))*
- Cooperative Extension Officer
  - Other Co-operative staff
  - AI staff
  - KARI staff
  - NGO staff (eg PLAN, FARM-Africa)
  - Private agricultural/veterinary company sales people
  - FTC's
  - Agro-vet duka
  - Schools
  - Churches
  - Clinics/Hospitals
  - From womens' or self-help groups
  - From the newspaper
  - From radio
  - From TV
  - From neighbours (informal discussions)
  - From community "expert farmers" (informal consultations)

Indicate on the diagram which sources they **prefer** to get agricultural information from and **why**

Find out whether they use any of these sources **specifically for livestock** information

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**4. Find out the ways/formats in which they have received farming information recently:**

**The key issues:**

- Are the communities passive receivers of information or do they actively go out and seek it?
- Do they feel well served by the information providers?

Do all members of the community have equal access to information?

**Suggestions as to the ways/formats they receive information might be:**

- Individual visits to farms by GoK extension workers
- Individual visits to farms by Co-op extension workers
- Individual visits to farms by representatives of private companies
- Training courses at FTCs
- Field days for groups of farmers run by GoK, Coops and/or private companies
- From visits to the agro-vet duka
- From visits to the co-operative society
- Discussions/field days organised by self-help or women's groups perhaps to which extension workers have been invited
- From schools through information given to your children by teachers
- Through church meetings
- From TV or radio
- Receiving printed material (find out where it came from, what form was it in).

**How could information supply to the area be improved? LOOK FOR SUGGESTIONS particularly from the poorest members of the groups**

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**5. Find out which livestock problems they have in the area and which of these they most frequently seek information on.**

Cover:

- Bees
- Poultry – Chickens, Turkeys and Ducks
- Doves
- Rabbits
- Pigs
- Sheep
- Goats
- Cattle

Checklist of issues may relate to

Disease (new diseases, local cures, modern drugse etc)

Feeding (growing fodder, using concentrates, giving minerals etc)

Reproduction (poor performance, AI services, access to bulls, rams etc)

Replacement animals (high costs, lack of supply)

Manure production (quality and quantity)

Marketing of **products** (no markets, delayed payments, problems with hawkers, preservation of products)

**Draft power** (poor harnesses/carts).

**6. What, in particular of these issues would the group like to receive information on?**

If they were to receive printed information on these issues in which language would they prefer it, in which format (text or illustrated) and through which channels should it come to them to make sure that they all get it?

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**APPENDIX 3: MoA Agricultural Information Centre – Livestock Media Pre-release Questionnaire**

**A. Household (HH) and Farm/Livestock Information**

Name of HH head								
Name of respondent and relationship to HH head	(If the Respondent is the HH head, write 'SELF')							
Location of HH	Sub-Location:	Location:	Division:	District:				
HH wealth rank (circle)	1 (poor)	2	3	4 (wealthy)				
No of children in education (If none, write '0')	Primary:	Secondary:	Training college:	University:				
Do your HH have access to a TV or radio?	TV Yes	TV No	Radio Yes	Radio No				
Farm size	acres							
Numbers of animals owned	Dairy cattle	Draft cattle	Sheep	Goats	Pigs	Poultry	Bee hives	Rabbits

**B. Household affiliations**

Are you or any members of your household **ACTIVE** members of:

Organisation	Yes	No	Which organisations and nature of affiliation
Schools	(√)	(X)	
Church groups			
Co-operative Societies			
Self-help groups			
Womens' groups			
Others			
Others			



**C. Sources of Farming Information**

Over the last 12 months where has your HH obtained farming information:

From	Yes (√)	No (X)	How often in year?	On which subjects (crops/livestock)?
Private visits from MoA frontline staff				
Private visits to MoA frontline staff				
Private visits from cooperative extension staff				
Priv. visits to cooperative extension staff				
Priv. visits from private agro-vet company				
Private visits to private agro-vet company				
Priv. visits from NGO extension staff				
Priv. visits to NGO extension staff				
MoA-run field days				
Agro-vet company-run field days				
NGO-run field days				
Self-help group meetings				
Church group meetings				
Womens' group meetings				

Enumerator \_\_\_\_\_ Date \_\_\_\_\_

Site No R \_\_\_\_\_ Questionnaire No. \_\_\_\_\_

From (continued from previous table)	Yes (√)	No (X)	How often in year?	On which subjects (crops and livestock)?
Schools				
Chief's baraza				
Discussions with neighbours				
Leaflets/ pamphlets				
Newspaper/ magazine				
Posters				
TV				
Radio				
ANY OTHERS? -----				

Rank your HH three (1 = best) most preferred ways to receive farming (crops and livestock) information?

From	Rank
Private visits to MoA experts	
Private visits from MoA experts	
Private visits to other experts (eg co-op or NGO or agrovet rep.)	
Private visits from other experts (eg co-op or NGO or agrovet rep.)	
MoA field days	
NGO, co-op or private company field days	
Chief's baraza	
Discussions in community groups	
Churches	
Schools	
Leaflets/pamphlets	
Posters	
Newspaper/ magazines	
Radio	
TV	
Neighbours	
Other (specify .....)	
Other (specify.....)	

If you receive written material which language do you prefer it to be in? (circle)?

KiEmbu      KiMeru      KiKuyu      KiSwahili      English

If you receive aural material which language do you prefer it to be in? (circle)?

KiEmbu      KiMeru      KiKuyu      KiSwahili      English

**D. Pre-release Knowledge Testing (give only one answer to each question)**

Question	Circle, if any of these answers are given: (Note: interviewees will not use the precise wording, so use your discretion)				Any other immediate and definite answer given by the respondent? (write in)	Did you prompt (√ or X)
How much water (in debes per day) should a milking cow be given?	1	2	3	4		
How often in a year should you deworm a milking cow?	0	1	2	3	4	
What sort of walls should a sheep boma have?	Open walls		Solid walls			
When should sheep go out to graze in the morning?	Before milking the cow		After breakfast	Once the day has warmed up		
What causes a sheep to have diarrhoea?	Worms		A dirty, wet boma	Too little food		
When is the best time to apply cattle urine or slurry to Maize ?	At planting		Just after emergence	When it is at least 1 foot high		
What should the best manure look like?	Well rotted, but has been left out in the sun and rain		One that is well rotted, black and is fine so that it falls easily between the fingers	Coarse, so that you can still see the maize stover and other plant constituents		
What is the best way to fertilise maize?	Use fertiliser only		Use manure only	Use manure in combination with small amounts of fertiliser		