Part 2 The role of livestock and breeding: Community presentations

Before the workshop, community participants were requested to prepare presentations about the role of indigenous livestock breeds for their livelihoods. They were asked to follow specific guidelines (below). This Part summarizes their presentations.

- Give a **short overview** about your community, its size, and geographical location.
- What **types of animals** does your community breed? Rank them in the order of prestige and status.
- For what **purposes** are the animals used?
- What is the **social significance** of these animals for your community? Are they given as dowry, bride wealth, at the time of birth, used for funeral feasts?
- Are animals used for certain **rituals**?
- What is **special** about the animals owned by your community? How do they differ from those of other communities?
- Describe what **qualities are important** in your animals and how male breeding animals are selected.
- Do you **distinguish different breeds** or types of animals within the species?
- Are there any **myths or stories** about the origin of your animals and the relationship between your community and these animals?
- Is any **crossbreeding** going on between your local animals and other breeds?
- What is the attitude of **younger people** in your community about a life based on livestock keeping?

Kawahla

Eastern Sudan

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In some parts of Sudan, one cannot talk at a public gathering unless one owns a camel as status in the community depends on the number of camels one has. Camels from the community are sold to markets in Egypt and Libya where they are valued for their strong, large bodies. Camels bred by the community also have a colour that is pleasant and well adapted to the Kawahla people's environment.

In the selection of sires for breeding, the following issues are considered:

- Milk production of the mother
- Size
- Colour
- Known progeny of the bull.

Among the Kawahla people, the continuity of livestock breeding is threatened by the exodus of the younger people to other livelihood strategies. This is leaving a rapidly shrinking older generation to sustain the animal breeding way of life.

Somali

Kenya and Somalia

The most valuable and prestigious animal is the camel. To the Somali, keeping animals is the main livelihood support strategy. Animals are used for milk production, cash income generation, agricultural activities and transportation. But beyond this, the animals have social significance and functions. They are used in the payment of fines (*diya*), for instance 100 camels are fined for killing a community member. They are also used in other ceremonies and social transactions, such as dowry payment.

In the selection of breeding animals, the community places emphasis on the male animal. Unsuitable males are castrated while young to exclude them from breeding. Within the community, there is a strong tradition of borrowing animals from other herds for breeding to improve the herd in terms of milk yield and meat quality.

The harsh terrain and difficulties associated with herding are discouraging young people from participating in the pastoral way of life. In addition, there is a threat from relief food, which is in some localities is creating a disincentive for pastoralism as people settle around relief centres and become dependent on the free food. Certain policies inhibit trade and thereby hinder development of the livestock economy. Land tenure is another problem as all the land is held in trust by the government, which inhibits the development of robust rangeland management strategies.

Karamojong cluster

Kenya, Ethiopia, Uganda and Sudan

Ebenyo Godwin
CEC Chairman Oropoi

The Karamoja cluster comprises 13 tribes speaking in a language known as Ngakaramojong. They include:

- The Nyangatom and Merille of Ethiopia
- The Topotha and Didinga of southern Sudan
- The Pokot and Turkana of Kenya
- The Jie, Pian, Matheniko, Tepeth, Dodoth, Nyaakwae, Bakora, and Pokot of Uganda.

Animal types

The communities within the cluster breed animals for the following purposes:

Cattle

- Provision of milk and beef
- Payment of dowry
- Hides for shelter and bedding
- Blood as food
- Traditional sandals
- Bedding
- Manure
- Skins for clothing (calves).

Camels

- Meat and milk for food
- Payment of dowry
- Hides for shelter
- Traditional sandals
- Bedding.

Sheep and goats

- Direct source of income for the family
- Provision of milk, blood and meat
- Payment of dowry
- Sheep's fat for medicine
- Skins for clothing.

Donkeys

- Cheapest means of transport
- Bride price
- Milk for medicines to treat tuberculosis and general chest infections

Social significance

The social significance of the livestock among the Karamojong cluster includes but is not limited to the following:

- For sacrifices as per the community's cultural beliefs
- As a source of life, without which life has no meaning
- Recognition as a member of the community
- As a measure of wealth
- Use in bull dances
- Social sharing of livestock breeds by exchanging males and females to enhance social links
- Source of dowry, bride wealth, at time of birth and other life cycle ceremonies such as funeral feasts.

The Karamojong cluster uses livestock for other rituals such as:

- Rainmaking ceremonies
- Cleansing of families, communities or livestock
- Protection against curses or disease outbreaks
- Treating sick persons
- Naming ceremonies
- Initiation ceremonies.

Unique characteristics

The animals have the following unique characteristics:

- Drought resistance and hardiness
- Disease resistance
- Meat is generally tender and tastier than that of other communities' animals
- They do not require a lot of forage
- They can survive for many days without water
- They are small in size, strong and can graze in rough terrain.

Breeding

These characteristic have been developed by selective breeding for animals that:

- Can trek long distances in search of pasture and water
- Have low feed requirements (small size)
- Can graze in all types of terrain
- Are aggressive and can fight off attacks by predators
- Are disease-tolerant, especially against tick-borne diseases
- Do not experience difficulties in calving.

To achieve this, the community selects male animals (sires) according to the following criteria:

- From a well-known lineage
- Performance of the parent animals
- Ability of the lineage to resist disease
- A lineage with offspring that remains healthy from birth to maturity.

The Karamojong cluster does not have any myths or stories about the origin of their livestock. However, they believe that God gave them cattle, sheep, goats and donkeys at the time of creation. The camels were brought to Turkana from the Rendille community through the assistance of a great seer, Mr Lokerio, who was believed to work magic. Since then three-quarters of Turkana own camels. Some of the cattle come from the Arab communities of Egypt, with whom they used to barter animals for ivory.

At the moment, there is no known cross-breeding going on between the local live-

stock and foreign breeds. But in the late 1980s and early 1990s, small and localized crossbreeding programmes existed at Kaikor and Nakwamoru centres. At the Kaikor livestock training centre, youths were trained in livestock management. Here, the small East African goat was crossed with male Galla goats. At the Nakwamoru centre, Turkana sheep were crossed with Dorper male sheep from Kitale. Some traces of Dorpers can be seen in this centre.

At Oropoi parish, Fr Bernard Ruhnau had a small crossbreeding programme for camels. Local camels were crossed with Somali and Rendille male camels and vice-versa. Traces of these can be seen at Oropoi.

For younger Turkana people, whether they live in urban centres or rural areas, it is considered mandatory to acquire and keep livestock. The reason is that most of these youths were born at the kraals and only migrated to the urban centres.

A very small group of this community who were born and brought up in towns and have not been exposed to the rural areas have a slightly negative attitude towards livestock keeping. This is due to their attending formal education and subsequent securing of jobs in towns.

Comments and discussion

- What are the status and effects of cattle rustling in the area? This occurs between communities in Uganda, Kenya and Sudan, but there are efforts underway to build peace in the region. Nevertheless, rustling has reduced cattle ownership in the area owing to fear of raiders.
- Donkeys, which were also obtained from the Arab communities, are used for transport, meat, and as a source of medicine for some diseases.
- In terms of prestige, the animals are ranked as follows: (1) cattle, (2) camels, (3) sheep and goats, and (4) donkeys.
- Efforts to address rustling and livestock-related conflict need to also look at issues of poverty, small arms, unemployment and governance in the neighbouring countries.
- Turkana animals are not small – they only seem so in comparison with exotics.

Karamojong

Uganda

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KISP is an initiative of the council of elders from the Karamoja region, Uganda, with the main objective of attaining a sustainable peace within Karamoja and the neighbouring similar pastoral groups in Uganda, Kenya, Ethiopia and Sudan. KISP also advocates for the development of the technical capacity among the Karamojong in disciplines that strengthen agropastoral livelihoods.

KISP was founded in early 1996 and incorporated in September 2000. KISP emphasizes the use of dialogue and consultation with the Karamojong people through traditional cultural institutions that have existed over the years and have cumulated knowledge and experience in solving conflict.

The 'Happy Cow Project' aims at promoting peace and development in Karamoja by enhancing animal production methods. The project believes that if the cows in Karamoja are happy, then the people will also be happy.

Introduction

Karamoja covers an area of 27,900 km^2 in northeast Uganda and has a population of about 900 000 people (National and Housing Population Census, 2002). The districts of Nakapiripirit, Moroto and Kotido make up the Karamoja region. The area generally has low, unreliable rainfall, except for higher and more reliable amounts in its northern, southern and western highland fringes. The rainfall pattern is unimodal with a clearly defined dry season (October–March) and wet season (April –September). The dominant farming system of the region is pastoralism, which is, however, undergoing transition to agropastoralism. Traditionally, the homesteads were generally established in the drier zones, while the wetter highland areas were used for grazing livestock, most importantly during the dry season. However the pattern has changed as many settlements have nucleated in the highland areas, notably for crop production as well. The basic unit in which the Karamojong lives is a village, made up of several households. Several villages form a parish, which is one of the units in a sub-county.

Despite the presence of vast natural resources in Karamoja (livestock, land, minerals, wildlife, etc.) the Karimojong remain among the poorest people in Uganda – they cannot even feed themselves. The literacy rate is only about 10%. The region has little or dilapidated infrastructure, and is grossly underdeveloped compared to the rest of the country.

The common currency and 'savings account' for the pastoral Karimojong is cattle (though the average Karimojong recognize the importance of money as an easily carried and convertible currency). The people of Karamoja are collectively called NgiKaramojong. There are some 20 main sub groups in the region (Table 1).

The Karamojong way of life

The Karamojong have a common way of life, traditions and culture. This community is a composite of many smaller communities identified not only by their common language, but also by the resources they share, namely their livestock *(ngibaren*). They regard livestock as community property to be taken care of by the community members (though each individual owns his or her own animals). This is because livestock and their products are shared in one way or another within the community; e.g., the milk when it is offered to a neighbour in need; the meat when an animal is slaughtered for elders in a given ritual or ceremony (which are not few in

number); the bride price paid in marriage, etc. The Karamojong also share settlements or villages (*ngirerya*), kraals (*ngawuiyoi*), taboos, customs (*ngitalio*), shrines (*ngakiriketa*), watering points, dams (*ngakare*, *namatatain*), pastures, farmland (*ngamanat*), and marriage ceremonies (*ekiitan*). The elders (*ngikasikou*), soothsayers (*ngimuruok*) and foretellers (*ngikadwuarak*) not only act as mediators or arbitrators on daily issues but also communicate with God on behalf of the community. Herdsboys (*ngikeyokok*) and warriors (*ngikarachuna*) defend the entire community and its resources.

All the subgroups except the NgiTobur/ Ngilabwuor and NgiTeuso (the Ik) share the same language and value animals in their daily lives. The latter groups, together with the Pokot, speak different languages, though most can also understand the Karamojong language.

Types of livestock and its uses

The Karamojong breed cattle, sheep, goats, donkeys and camels (camels are kept only by the Pokot in SW Karamoja). Livestock are one of the people's most important resources. They are used right from birth, throughout life, and at the time of death. At birth, a sheep is slaughtered to obtain a shawl to carry the baby. The animals are also meant for blessing the baby and the meat as part of the diet for the recuperating mother after labour.

Other uses of livestock include:

- **Food** Meat, milk, ghee, blood.
- **Savings account** Currency that is well known to most Karamojong and easily convertible to other forms of resources. The more animals one has the richer he /she is.
- **Bride pride** For marriage and related issues – e.g., payment for impregnating a girl.
- **Sacrifice** Slaughtered for various ceremonies e.g., cleansing ceremonies, initiation, funerals, etc. See details below under the different types of livestock.
- **Compensation** e.g. a community member injured or killed by a fellow member; 60–100 cattle are charged for compensation of a slain clansman.
- **Settling serious disputes** e.g., rape, adultery, etc.
- **Disease treatment** Slaughtering livestock on the instructions of a witch doctor.
- **Dress** Skirts for girls and women, aprons for married women, belts, sandals, blankets.

Table 1. Distribution of Ngikarimojong subgroups

District/County	Subgroup
Kotido: Dodoth	NgiMening
	NgiNyangia
	NgiDodotho
	NgiTeuso[1]
Jie	NgiJie
Labwuor[2]	NgiTobur/ Ngilabwuor
	NgiNyakwae
Moroto: Bokora	NgiBokora
	NgiMogoth
	NgiPeei
	NgiTome
	Ngimuno
	NgiMosthingo
	NgiKosowua
	NgiKaleeso
	NgiTepeth[3]
Matheniko	NgiMatheniko
	NgiTepeth[4]
	NgiMogoth
	NgiMuno
Nakapiripirit: Pian	NgiPian
Chekwii / Kadam	NgiPian
	NgiKadama[5]
Pokot	NgiPokot

[1] Predominantly gatherers
[2] Predominantly crop producers
[3] Live on the Napak mountain
[4] Live on Moroto mountain
[5] Live on Kadam mountain
Some subgroups live in more than one county; eg NgiTepeth, NgiPian and NgiMogoth.

- **Bedding and mats** Skin for sleeping, sitting on during ceremonies, at meals, or while drinking traditional brew.
- **Manure** For cultivation, especially tobacco and maize.
- **Traction** For cultivation, transport, haulage.
- **Others** Fasteners (string, rope from hides), sheaths for knives and spears, containers for tobacco made from cattle horns, and flywhisks made from tails.

Cattle

Cattle are the most important type of animal kept by the Karamojong community. The uses of cattle include:

- **Food**, milk, blood, ghee, meat
- **Marriage** and related needs.
- **Wealth store** or 'bank account' that can be converted to cash, exchanged for other items, used to pay a debt, or as compensation for an injury or death of a fellow clansman.
- **Ceremonies and rituals** These include:
  - Initiation (*asapan*).
  - Feast for elders (*akitochol*).
  - A ceremony for twins (*lorotin,* see below).
  - A feast for elders and soothsayers sponsored by the combatants for blessings prior to a cattle-rustling expedition, particularly a large and important one (*akimwaimwakin*).
  - A bull slaughtered for elders after a successful cattle raid (*lookwa*).
  - A ceremony for gathering cattle together prior to transhumance (*akiwudakin*).
  - A few bulls slaughtered as a feast for elders (*akipeyokin*).
  - A feast for elders made by an individual in his own home (*akipeyokin tamanawi*) and not at shrine, for the elders to mediate with God to solve a particular problem faced by the person offering the animal.
  - A bull slaughtered at the demand of a foreteller to foretell (*akiereor*) the situation of the land.
  - A bull slaughtered to avert a predicted bad event (*akiretakin eronet*).
  - A bull slaughtered if the bride's older sister is not married (*lodepar*).
  - A bull slaughtered at the behest of a witch doctor to cure a particular ailment (*adyak*).
- **Skins** are used for bedding, sandals, belts, ropes, bell straps, etc.
- **Status** Someone who has many cattle is respected.

Calves

Calves are rarely slaughtered for their products. However skins are taken from calves that die from disease. The skins are used to make items such as skirts for women, leather sheets or blankets, sitting mats, bags for carrying grain, flour or honey, strings, ropes, and straps to tie bells around the necks of favourite animals.

Goats

Goats are used in similar ways to cattle: for food (milk, blood, meat, ghee), bride price, sacrifices for ceremonies (e.g. initiation of young men), and in times of sickness. Goat skins are used as mats, aprons for women, and bags for carrying grain, flour or honey. Goats can be sold for cash or exchanged with other types of livestock, e.g. 10 goats for 1 head of cattle.

For some ceremonies, e.g., for a feast for elders or one particular elder, sheep and cattle are preferred over goats.

Sheep

Sheep have the same uses as cattle and goats: they provide food, meat, milk and blood. However sheep are used predominantly in cleansing ceremonies, most particularly when something strange happens in the community.

- When some mistake is made in execution of a given ritual, a sheep is slaughtered to amend the situation – for example if the milk teeth of a baby start growing from the left jaw.

- When a woman forgets her ancestral stick somewhere and spends the night without it.
- When the tongue meat of a sacrificial animal chokes an elder.
- When a combatant has kill an enemy or wild dog, to cleanse him.

Sheep skins are used for girls' skirts, sitting mats, shawls for carrying babies, or thread for other leather goods.

Sheep are slaughtered in sacrifices, e.g. at funerals, initiation of young men, or the *akitocol* ceremony (elders' feast). To approach an elder for a need, a ram is the main choice.

Sheep are also used to pay bride price, to exchange with other livestock, or to sell for cash.

Donkeys

Donkeys are predominantly used for transport e.g. to move kraal gear, to carry elderly people, children or the sick between the kraal and village using a rack (*athaja*), and to transport crops. They are also used for ploughing. They provide food, meat, and milk, though not frequently. Donkey milk is specifically used for feeding baby orphans, as the community thinks the milk has similar viscosity nutritional value to breast milk. The only time donkeys are used for sacrifice is to treat tetanus (*natelo*). The skin is used for bell straps.

Camels

The Pokot keep camels due to contact with their kin across the border in Kenya who keep camels. A few camels have been sighted in Matheniko too. Camels provide similar products to those provided by cattle**.** However the camels in Matheniko are not used for sacrifices. Some Karamojong think camel meat is a delicacy. Most Karamojong have shied away from keeping camels because they think camels bring drought.

Social significance of animals

As animals are regarded as a source of life, the more animals one owns the better. Cattle can be converted to acquire the necessities for a good life. A person with a lot of animals is rich, and his family is large; he has many children and dependants. Such a person may have several wives and households.

Every male Karamojong strives to own as many animals as possible so that his family is assured a good, happy, long life.

Karamojong men usually base their own name on the colour of their favourite bulls. Such names have the prefix *Apa*... (the owner of...). *Apa*Longor means 'the man with a brownish bull'; *Apa*Longatuny means 'the man with the bull coloured like a lion'; *Apa*Loris means 'the man with the bull coloured like a leopard', etc. The man's inferiors and colleagues use such names to refer to him. The favourite bull enjoys privileges from the owner like being adorned with a bell, getting prompt veterinary attention, clean water, etc.

A male Karamojong with a lot of cattle acquires an elephant tusk bangle that he wears on his left wrist as a sign of wealth and recognition by others. A man without animals is considered poor, and is not able to found a family. He would rarely address a gathering or comment on issues to do with livestock.

Ritual uses of animals

- **Dowry** The Karamojong do not offer dowry for marriages.
- **Bridewealth** Animals are exchanged for the bride during marriages, which is anything between 30 and 200 animals, depending on the strength of the bridegroom's family and competition for the bride. If the bride's older sister is not married, the bridegroom offers an extra bull for slaughter at the bride's home for a *lodepar* ceremony to appease the spirits.

- **Births** A (usually white) sheep is slaughtered and the skin used as strap for carrying the baby. The meat is given to the baby's mother. If a woman gives birth to twins, two sheep are killed and another animal (usually a bull) is killed at the crossroads to enable the twins to follow different paths in their later life. This ceremony is called *lorotin*.
- **Funerals** An animal is killed at the burial. Another ram is killed at the time the mourners' hair is shaved and to enable the family to open the food stores donated by neighbours.

Livestock characteristics

The Karamojong see animals as 'life', as they obtain their entire social, economic and religion benefits from them. Their animals are accustomed to the environment as they have survived the harsh climate and rough terrain over the years. The Karamojong know each animal individually. Other communities probably consider animals only in the economic context (for example, they keep animals to sell them so they can acquire other items). They seldom know each animal's individual characteristics.

The Karamojong appreciate animals of reasonable size and body weight, with good milk yield, high calf production, certain colours, and disease resistance.

Selection of males

The following characteristics are considered when selecting males for breeding.

- **Physical features** Large, good shape.
- **Active** Able to serve many cows.
- **Pedigree** The qualities of the parent in terms of resistance to diseases, milk yields, survival of calves and body size.

Breeds

The Karamojong recognize different breeds within their herds, although they do not give them specific names.

Cattle The Karamojong cattle are of the same type. Some Karamojong groups call their animals *ngalok'i*', though most describe them as 'Karamojong cattle'. The cattle are all zebu, with upward-pointing humps, large body size and weight, blunt snouts, resistance to heat, some tolerance to cold, well-developed dewlap very prominent in bulls. Their colours include white/cream, grey, roan, dark/dirty brown. Black colour is a recent development from interbreeding. The Karamojong herds have undergone a lot of interbreeding with cattle from neighbouring pastoral groups such as the Teso in the west, Sabiny in the south and Pokot in the east. Teso cattle are smaller, have pointed snouts, etc. – not desirable to the Karamojong.

The Karamojong try to maintain their breeds by some controlled breeding. Undesirable males are castrated, sold off or even used to pay a debt. It is not uncommon for one herder to borrow a desirable bull from his neighbour for breeding purposes for a few weeks.

Goats The Karamojong do not have special names for their goats. The animals have large body size and are reasonably tall. Colours include white, cream, grey, pink-brown and black. The females have high milk yields and are prolific, often delivering twins.

Sheep There are no special names for types of sheep. Karamojong sheep are fat-tailed (a quality that is much appreciated),, have a reasonable body weight, and are prolific breeders. The body is white, while the head (or only the mouth and eyes) are black (East African Black Head or Persian). In contrast breeds from Teso are long and thin-legged, with poorly developed tails, low weight and frequently hornless.

Donkeys There seems to be only one type of donkey in Karamoja.

Camels The camels kept by the Pokot and Matheniko in Karamoja originate from the Pokot and Turkana in Kenya.

Origin stories

The Karamojong are said to have obtained cattle from Arabs by bartering them for elephant tusks. The Karamojong were hunters and gathers before acquiring livestock. Groups known as Teuso in northern Karamoja still value gathering.

Crossbreeding

There is crossbreeding between local animals and other breeds. This occurs through the continual mixing of animals through interaction between the Karamojong and their neighbours. This interaction includes cattle rustling, transhumance into the neighbouring districts for pasture and water in the dry season, trade, intermarriage, friendship, and return of stolen animals. The Karamojong do not enclose their animals in paddocks; communal grazing leaves room for interbreeding.

Young people

While the youths love animals and actively participate in acquiring them, they are getting reluctant to herd them. There is a growing tendency to leave active herding to the younger members of the community (boys) while warriors devote themselves to leisure, especially during peaceful times.

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Maasai

Kenya and Tanzania

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on behalf of Maa livestock keepers in Samburu, Kajiado and Tanzania

The Maa community keeps cattle, sheep and goats, donkeys, and camels (ranked in descending order of prestige). The community keeps livestock for a number of reasons, primarily as a source of livelihood but also for prestige, bartering, medicinal uses, clothing and attire, bedding and socioeconomic security.

Social and ritual functions

In terms of social and ritual functions, animals are used for the following purposes:

- Blood to help a mother recover after delivery of a newborn
- Paying bride price
- Gifts to children as they go through the rites of passage (for instance a newly married woman must be given eight head of cattle and a bull on the morning after reaching her marital home).

Livestock are slaughtered during ceremonies, for convalescents and also for cleansing for various crimes. For instance for murder the fine ranges from 49 to 449 head of cattle, depending on the community and circumstances. Animals are also used to carry luggage, invalids and old people.

Livestock play a central role in certain prominent rituals, such as:

- When an elder has conjugal relations with his wife before their infant child has started walking (or if he sleeps with her when she is pregnant and she aborts), the neighbouring womenfolk forcefully slaughter a cow or ox. The large intes-

tines of the ox are tied around the offending husband's neck and then are pierced by women so that the contents spill out over his body.
- He-goats are slaughtered in the ceremony of *Olkiteng' 100 mbenek*.
- Oxen are slaughtered and the hide is made into a long string during the boyhood ceremony of *Enkipaaita*. The string will be safely kept by the ox-donor boy's mother, whose son is named *Oloboru Enkeene*. This hide string will be securely kept until that ceremony, eight years later when the age group goes for a rite called *Enkang'e nkeene*.
- During the rite of *Olketeng' Lool baa*, a blemished ox is slaughtered. *Enkiyieu* (*Kidari*) is shared in the ritual between the two elders of the same age-group, after which two elders call each other *Enkiyieu ai*. These two elders exchange heifers and shall never disagree for whatever reason.
- During the *Eunoto* ceremony when warrior-hood is terminated.
- Also when the rains fail for long, an unblemished sheep is slaughtered to make a burnt offering to God to come to the community's rescue with rains.
- During initiation of children, in some families women slaughter a sheep at the door of the initiate's hamlet or hut.

Among the Maa community, livestock and their products play a huge role in social relations. One can hardly speak of ones 'own livestock', since these are accessible to all community members. For instance, one is obliged to contribute livestock for slaughter at one or another ceremony or ritual. When an animal is slaughtered, the meat is allotted according to a predetermined pattern for consumption by boys, girls, women, fire-stick elders, age set, intruders, the slaughtering group, the neighbours, etc. Even milk is for everyone's consumption – all for free. Food and accommodation are supposed to be offered free of charge to visitors. Each clan has predetermined clan brand marks and earmarks which they use to identify their cattle. This helps mitigate inter-clan conflicts

Breeding and selection

The Maa are well aware of the different animal breeds, among cattle notably the Ankole, Sukuma, Kamba, Kerio Valley, Sahiwal, and different European breeds. The Maa community has a special type of the African zebu, and discerning breeders cannot only recognize animals belonging to this strain but also trace out the animals' lineage. Maa breeders have over time bred strains of livestock with attributes which the community values specifically:

- Maasai zebu cattle are resistant to drought and tropical livestock diseases in general.
- Maasai zebu livestock can stand walking long distances to watering points – in some cases 20 km.
- In drought, the livestock can survive for 15 days or more without drinking water.
- Maasai livestock are aesthetically coloured, without a single coloration predominating.
- The quality of milk is sweeter and has a much higher butterfat content than that of exotic breeds. While the quantity is lower, the quality far exceeds that of most exotic breeds.
- Red Maasai sheep are resistant to long spells of drought and to tick-borne diseases. They require little attention. The Maasai have learnt how to treat animals themselves with herbal medicine.

The Maa believe that cattle mirror the behaviour of their owner. Indeed, they hold that one can learn more about a man by looking at his livestock than by looking at the man himself, i.e. whether he is given to humility, cruelty, empathy, etc.

In the selection of breeding animals, certain qualities are sought after. The Maasai have a saying: *Meetai Olaisinani Ie Muleeni* (one is never poor simply because the livestock he owns are small).

A good bull must be in good physical health, have a good size, come from a

good lineage (in terms of milking, survival, drought resistance, and fast growth), be docile and have a good colour.

Myths and stories

According to Maa mythology, the first man prayed for livestock at night, and God granted his wish by making animals come into his compound. God asked the man to take as many as would come in. Out of curiosity, the man tried to count the number of livestock coming into his kraal and was so amazed by the numbers that he shrieked in sheer wonderment. There and then, the flow of livestock ceased. It is not known how many more livestock he stopped from 'flowing' from nowhere into his kraal by shrieking. That is why Maasai herds are limited in size. The Maasai have an adage, *Midol Kimanya,* which means one is never really conscious of his state and his possessions. (Only others know of the state of one's wealth, never oneself.)

The Maasai and cattle are inseparable. They say, *tenenyamalu inkishu nenyamalu iltung'ana* (if livestock are in trouble, so is man) and *tenenyamalu Oltung'ani nenyamalu inkishu* (if man is distressed, so are livestock). In essence, the Maasai and livestock fates are intertwined and both are bestowed with a common fate; in distress and in time of abundance, both rise and fall together.

Crossbreeding

There is a good deal of crossbreeding between indigenous Maa breeds and exotic cattle varieties such as the Sahiwal, Simmental, Friesian, Jersey, Guernsey, Kamba, Sukuma and Luo. Nevertheless, there appears to obtain a state of genetic atavism that always throws the breed back to where it came from after a few generations. This crossbreeding is not widespread, as the Maasai's critical consideration in breeding is drought resistance, which is already well inculcated in indigenous breeds.

The red Maasai sheep has also been crossed with the Dorper, and as a result the sheep are bigger and produce more meat and fat.

Young people

Young people in the community have an ambivalent attitude towards livestock keeping. Some find livestock keeping a very hard life, especially those who have gone to school. Those who never ventured to into western education in general have no qualms about maintaining the livestock breeding way of life

Other problems

Other problems faced by contemporary Maa breeders include:

- Water shortages
- Long spells of drought
- Uncontrolled livestock diseases
- Insufficient veterinary services
- Counterfeit veterinary products
- Reduction of rangeland for pastoralists
- Poor marketing channels for livestock
- Uncontrolled Tsetse fly menace
- Emerging new livestock diseases.

Boran
Southern Ethiopia and Marsabit district, Kenya

Philip Boru Halake
Pastoralist, Marsabit, Kenya

There are four major communities in this region: Rendille, Gabra, Boran and Burji. All these communities are pastoralists except the Burji, who are agro-pastoralists.

These communities reside in the northern tip of Kenya's Eastern Province, covering the region that lies between Lake Turkana to the west, and Moyale to the east. To the north, the region extends to southern Ethiopia, as far as Yavelo and Nageka. The total population in Marsabit district is estimated at 130,000 persons.

Animal breeds

- **Camels** Gabra and Rendille breeds
- **Goats** Black Headed Persian, Galla, and Small East African varieties
- **Donkeys** Breeds of Turkana origin.
- **Dogs** Shanzi dogs.

Livestock uses

- **Camels** Valued as pack animals and for tehir meat and milk; they are also used to pay dowry. The butter from camel milk is also highly valued.
- **Goats** Can be easily sold for cash as they reproduce fast; also valued for their milk, meat and hides.
- **Sheep** Valued for their fat and meat; also used for religious ceremonies.
- **Donkeys** Mainly used as pack animals; also sold for cash and bartered for other commodities.
- **Dogs** Kept for security purposes.

Social significance

To be recognized as a Gabra or Rendille, one must be the legitimate owner of a camel; each household must have a camel. To the Boran, however, camel keeping is a newly acquired practice. In Ethiopia, bush encroachment on pasturelands has reduced pasture for the cattle, and raised the importance of camels as they are hardier and more resistant to drought. They are also used for ploughing. Sheep are used by all communities in the region for various rituals such as Sorio and at the sighting of the new moon.

Male goats are slaughtered by age sets at prayers for rain, blessings, and during circumcisions.

A true Borana must have been given a few cattle by his father, eg Some Handura.

Donkeys and dogs have no social significance.

Rituals

Camels are slaughtered when a prominent old person dies in the society. No major ceremony can be conducted without camels.

Goats and sheep are slaughtered at the circumcision of age sets, prayers for peace, at the sighting of the new moon and for Sorios .

Cattle have a variety of ritual uses:

- The naming of a child
- Gadamoja ceremonies
- Payment of dowry
- Slaughtered at Gumi Gaayo conferences
- Weather prediction (by looking at the intestines of slaughtered cattle)
- Butter is used to make ointments and for anointing.

Special attributes of animals

Camels are good pack animals. They are very hardy, especially the Rendile variety. The Somali camel is less hardy.

Gabra Galla goats are very hardy and good for milk and meat production. They are able to go for five days without water as opposed to the weaker Somali Galla. The Small East Africa goat is valued for its faster breeding rate. The Black Head Persian goat is valued for its fat accumulations in the tail.

Cattle varieties such as the Boran are drought- and tick-resistant. They also have a high body conversion rate as opposed to the East African zebu.

Donkeys are very hardy. As pack animals they are able to tread where camels are unable to.

Dogs kept by the communities are also very hardy and can go for days without food.

Selection of breeding animals

The following qualities are sought in the selection of breeding animals.

- High growth rate
- High milk yield
- Adaptability to harsh conditions
- Big body size and good body structure
- In camels, the ability to carry a lot of baggage.

In the selection of the male, the following additional qualities are also sought;

- High survival rate of offspring
- Good body structure and large mature size in the offspring
- Hardiness
- High milk yield in female offspring.

The communities distinguish different types of animals, based on characteristics such as milk yield, body structure, colour, hardiness, strength, etc. There is also a good degree of crossbreeding between local and 'foreign' breeds of animals.

Young people

While livestock is the lifeline of these communities, and they cannot live without them, there is a problem of young people moving away to towns, threatening this way of life.

The communities also have varied opinions on policy matters, such as land demarcation and herd sizes, which have great implications for the viability of pastoralism. Within the community, the young people are shying away from pastoralism, leaving the old and those who have retired, to carry on.

Bahima

Uganda

Helen N Nakimbugwe
National Animal Genetic Resources Centre and Data Bank, Uganda

Charles Muchunguzi
Mbarara University of Science and Technology, Mbarara, Uganda

Indiscriminate crossbreeding of cattle in Uganda calls for an urgent need to conserve our local genetics, among which is the Ankole longhorned cattle breed. *In situ* conservation of this breed can only be successful in collaboration with the hereditary keepers of this breed *viz*. the Bahima pastoralists. It is therefore imperative that their rights as inherent breeders of the present day Ankole cattle are protected.

The Ankole cattle belong to the Sanga group of cattle that is indigenous to the central and eastern regions of Africa, and in Uganda to the western and southwestern parts of the country. It is classified as an intermediate *Bos indicus / Bos taurus* breed type, with a small cervicothorocic hump. It has a relatively large body frame and characteristically long and large horns that curve outwards and upwards and finally inwards. About 2% of the members of this breed type are thought to be polled (Sacker et.al., 1966; Kiwuwa, 1995).

The Bahima are ethnic pastoralist cattle keepers within the Banyankore tribe. They are found in the southwestern part of Uganda, in part of the cattle corridor that traverses Uganda from the northeast to the southwest. This corridor was used by pastoralists (the Bahima and Karamajong tribes) in their search for both water and pasture. The increasing pressure on land has, however, highly restricted pastoral movements within the corridor, and is forcing the Bahima to a sedentary lifestyle.

Bahima's relationship with cattle

Ankole cattle play a central role in the lives of the Bahima. Anthropologists have described the relationship between man and cattle in cattle-herding societies as the 'cattle complex' (an extensive ritual usage of cattle with an emotional attachment to or identification with cattle). One can speak of a cattle complex as being 'strongly' or 'weakly' developed on the basis of whether there is an intensive and extensive use of cattle in the promotion and satisfaction of the biological and social life of a people (Klima, 1970). Based on this description, the Bahima can be described as having a strong cattle complex.

Museveni (1997), the current President of the Republic of Uganda and a reknowned Ankole cattle breeder, describes the relationship of his tribesmen with cattle as follows:

'They are like members of our families and we treat them intimately. For instance, we have a brush called enkuyo, *which we use to clean and massage the cow, a process we call* okuragaza. *This is done for most of the milking cows, but also for favourites amongst them. It is a form of communicating with them and they enjoy it very much. A cow will follow you everywhere if you massage it with that brush. I have a great personal feeling for my cows, especially the ones whose ancestors have been in our family for a very long time. They are like cousins and sisters to me. I think if I acquired other cows they would not mean as much to me. I do not have the same feeling for the exotic breeds from Europe, but perhaps over time they will become like adopted children and we shall like them.'*

Herd management

To ease management of herds and as a form of herd recording, animals are given individual names, which precisely describe them. These descriptions are based on phenotypic characteristics (coat colour and

patterns, sex, shape of the horns, special marks or distinguishing features), behaviour, and others characteristics, including ancestry, association with a special event and mode of acquisition (e.g. a gift).

This precise description (Infield, 2003) enables a single animal in the herd to be picked out with ease. A name's prefix indicates whether an animal is a heifer, a cow or a bull. For heifers, names start with *Ka*, for bulls whether young or old with an *R*, and for cows any other letter, except for the brown-white coloured cow called *Ruhuzumu* (Table 1).

Cognition of coat colour among the Bahima is very fine. For example, names of coat colour patterns (e.g., spots or patches) are given according to size, concentration, prominence, distribution and locality. Infield (2003) notes that being able to distinguish between the light brown (*siina*) and the dark brown (*mbindi*), makes it possible for breeders to select the right cows and bulls to produce animals of the favoured dark reddish brown colour (*bihogo*).

This fine description of an individual animal makes it possible for the Bahima to trace back the genealogical relationships of their cattle as far back as ten generations.

Breeding qualities

Great care is taken in selecting the bull of the herd (engundu). Museveni (1997) points out that eating of male calves is in effect a method of breeding control as only the best males are preserved for breeding purposes. There is hardly any selection pressure on female animals. Table 2 outlines the qualities which are generally considered in selecting of a breeder bull.

Social-economic significance

The strong cattle complex of the Bahima is reflected in the various components of their social economic life.

Uses

Nutrition Cattle products play a very important role in the nutrition of the Bahima. Museveni (1997) recalls the eating habits of the Bahima during his childhood:

'Before my family became Christian, we did not eat any non-cattle products. The main staple of our diet was various types of milk – fresh milk, soured milk, and, once in a while, a kind of thick cream called eshabwe *which we would eat with steamed bananas. We also ate cattle blood – we would bleed the cattle and bake the blood into a type of cake. In my culture at that time, eating non-cattle food was considered shameful. Sometimes you could eat solid food, but you would have to wait until it was out of your digestive system before you were allowed to drink milk again. Mixing the two was supposed to be very bad for the cows! We would also eat veal once in a while, especially if the cows produced male calves. Adult cows would only be killed for a big ceremony, never for regular food.'*

Although the eating habits of the Bahima are changing, remnants of such habits are still very strong within the community.

Wealth and prestige A man who at his time of death has less than 100 animals is not accorded due respect at his burial. For every 100 animals one has, an iron bell (*omurebe*) is tied around one of the favourite animals in the herd. More bells in the herd mean more animals and therefore more wealth and prestige.

Social security To avert risk, especially during epidemics, owners give animals to friends and relatives, or lend them the animals to raise. If the owner's herd faces problems, the friends and relatives help him rebuild his herd.

Loans Cattle are used as loans. The lender can often later demand another cow in return.

Table 1. Examples of descriptive names of the Ankole cattle

Feature	Description	Heifer (name begins with *Ka*)	Bull (young or adult, begins with *R*)	Cow (begins with other letter)
Phenotypic description				
Colour	Dark reddish brown (favourite colour)	*Kahogo*	*Ruhogo*	*Bihogo*
	Light brown with black and brown stripes (associated with taboos in some clans e.g. Abasingo)	*Kagoobe*	*Rugoobe*	*Ngoobe*
	White	*Kasa*	*Rusa*	*Kisa*
	Very black (least favourite)	*Kozi*	*Rwozi*	*Kyozi*
Colour patterns	White patch/spot on forehead	*Kaasha*	*Rwaasha*	*Kyaasha*
	White patch over mouth	*Kashomero*	*Rushomero*	*Kishomero*
	Single white patch on udder	*Kahuuga*	*Ruhuuga*	*Mpuuga*
	Small spots distributed allover the body	*Kayenje*	*Ruyenje*	*Mayenje*
Form	Big hump	*Kabango*	*Rubango*	*Ibango*
	Long umblical flap	*Karomba*	*Ruromba*	*Kiromba*
	Wide head like of a buffalo	*Kabogo*	*Rubogo*	*Mbogo*
Shape of horns	Large white horns from base to tips	*Kashunga*	*Rushunga*	*Bishunga*
	Horns curve in tightly	*Kakome*	*Rukome*	*Kikome*
	Loose horns falling downwards	*Kashara*	*Rushara*	*Nshara*
	Small, slightly protruding horns	*Kakurura*	*Rukurura*	*Bukurura*
Marks – natural or man made	Polled – no horns	*Kakungu*	*Rukungu*	*Nkungu*
	Horns broken at the tips	*Kachweka*	*Ruchweka*	*Kichweka*
	Branded on side of face	*Karanga*	*Ruranga*	*Kiranga*
Character or behaviour				
Animal with many desired traits, e.g. good temperament, graceful gait, good fertility etc.– almost perfect		Kashemeza	Rushemeza	Ishemeza
Feature	Example of name	Meaning		
Ancestry	*Kahogo ka Ibango*	*Kahogo* (dark red brown heifer), *ka* (from/of/born to), *Ibango* (cow with big hump) (ie, Dark red brown heifer born to cow with a big hump		
Mode of acquisition	*Kahogo ka Nuwenkunda*	*Kahogo* (dark red brown heifer), *ka* (from/of), *Nuwenkunda* (name of a person) ie, Dark red brown heifer from Nuwenkunda. This heifer might have been given to the owner by Nuwenkunda as a present, on a loan, etc.)		
Event	*Gaaju ga kyarwenkuba*	*Gaaju* (light brown), *ga* (of), *kyarwenkuba* (heavy rainfall/ thunderstorm) (ie, Light brown cow born or acquired during times of heavy rainfall or thunderstorm)		

Table 2. Selection criteria of breeding bulls

Feature	Desirable characteristics	Remarks
Horns	Large, long, heavy, well balanced, wet glow on them, white all the way to the tips, graceful curving (outwards and upwards and finally inwards – *Orukondo*)	However perfect a cow may be in other regards, if it does not have good horns it cannot be considered beautiful. Black cows are avoided because it is almost impossible for them to have glowing white horns
Colour	Varies but the favourite one is dark reddish brown – *bihogo*	Ideal is a single, unbroken colour
Body	Big and tall	
Neck	Big	
Dewlap	Big	
Chest	Wide, straight, firm	
Hump	Small	Belief is that the bigger the hump the more feed is wasted by being stored there
Coat colour	Not dry, smooth, shiny	
Rump	Wide and beefy	
Hooves	Big	Belief that animals with big hooves give high milk producing offspring
Legs	Long and big	Able to move long distances
Testicles	Big and equal in size	Bull with one testicle highly valued because of belief it will have many female offspring
Penile sheath	Big	
Rudimentary teats of the bull	Big	Believed to produce offspring with high milk production
Temperament	Good	
Milk production	High	On basis of pedigree
Milk quality	High butterfat	On basis of pedigree

Building materials Cow dung and hides are used in building of huts.

Feasts and recreation Animals, especially bulls, are slaughtered during feasts or celebrations. It is believed that when the head of the family dies he must die with his big bull in the kraal. So during the funeral feast the bull is slaughtered and feasted on by the mourners.

Songs, recitals and dances depicting love for Ankole cattle are a must. The most popular song is the *Akahogo* (*Kahogo* is the favourite dark reddish brown animal). Singers sit in a linear form facing in one direction with arms raised upwards and slowly moving them forward in a movement which depicts the preferred shape of horns of the Ankole animal (*Orukondo*).

Poetry recitations always depict the value and significance of the cow to the Bahima. In a rhyme tone one recites the lineage of the cow that brought wealth to his family or a cow that was got from a true or close friend. The art of wrestling is also an imitation of bull fighting.

Medicine and detergent Various concoctions of cattle products are used as medicine for man. For example cow urine mixed with milk (*kashumba*) is used as a laxative. Morning urine (*amaganga*) from cattle is used as a detergent to clean milk pots, in concortion with herbs as a mouth wash, for skin infections, etc.

Clothing and bedding Use of hides as clothing has completely died out. Their use as beddings, however, is not uncommon.

Settling disputes Cattle is used as a form of compensation to the offended party (*empongano*).

Gifts Most gifts given out to friends and relatives, or at special occasions like birth of a child and marriage, revolve around cattle. For example *Omugamba* – a special marriage present – which is given to the bride by her parents must include a wooden bucket for fetching water from the well to the cattle trough, a large calabash for storing fermented milk which is churned to produce ghee, milk pots equivalent to the number of cows paid as bride price, and a ceramic pot with a special type of grass (*obwitizo*) whose smoke when burnt gives a good aroma to the milk pot.

Bride price Bride price is paid in form of in-calf heifers or cows which have had at least one calving. This is to ensure that the animals received are fertile. Bulls are not accepted.

Rituals and religion Examples of rituals associated with cattle include a spiritual ceremony comparable to baptizing babies. A baby boy sits on a cow with a bow, arrow and a rope (*okuta aha mugongo*). It is believed that this imparts warrior qualities in the boy.

Communication with ancestors to give blessings to the family herd is very important. Milk from the cow of a family's deceased father is put in the household shrine built next to the main house. The following is recited: 'See the milk of the cow, father. You should give your cows a chance to produce, multiply and become many.'

Myths

There are numerous myths related to cattle. One is the story of the creation of Lake Nyabihoko. There once lived a man called Mutomo who had many herds of cattle. An epidemic struck and killed all his cattle except one of his heifers called Kayenje. Mutomo walked it to distant places so that it could conceive. Kayenje, whose name later became Mayenje, had many offspring, which restored Mutomo's wealth. One day Mayenje called Mutomo and told him that if she were to die, she should be buried and not eaten. But Mayenje died when Mutomo was away visiting his friend, Mwamba. Mutomo's family never heeded Mayenje's instructions, and started to eat her. Suddenly the whole of Mutomo's land turned into Lake Nyabihoko and his family and all his property drowned.

Customarily it is not considered right to slaughter and eat an animal which has given many offspring. Such animals are left to die of old age and are just buried.

Future of the Bahima

The rising pressure on land due to growing populations, coupled with government policies which advocate sedentarization and conservation of wildlife in traditional pastoral areas, are a great threat to nomadic pastoral production systems. The general apathy of the youths towards this form of lifestyle aggravates the situation. Infield (2003) notes that it is sad but perhaps inevitable, that young Banyankore/Bahima today are less interested in the beauty of their famed longhorned cows than their parents are. Many cattle keepers are worried that the loss of their pastoral culture will eventually lead to the loss of the longhorned Ankole itself.

The cow in Runyankore is called *ente*. The interpretation of the word is synonymous with a Runyankore word *Entahabi* ('it takes me to difficult places/situations'). This refers to the demands the cow puts on its owner. Today's chips-and-chicken generation that has been exposed to city life in pursue of formal education cannot accept to be subjected to the demands of looking after the Ankole cow.

Internationally, the Bahima are not accorded much attention as pastoralists in comparison to their contemporaries the Karamajong. This is reflected in the lack of comprehensive pastoral development pro-

grammes in the part of the cattle corridor in which they live in.

Breeding rights

The Bahima by ancestry identify themselves with the Ankole cattle and have contributed a lot in developing this breed. But how should their rights be protected? Who should protect them? Section 35(1) of the Animal Breeding Act (2001) states that

'Any person who sells for breeding, any breed or genetic material under a description other than its patent name, commits an offence.

Section 35(2) defines *patent name* as the name given to a specific variety of breed or genetic material by its originator or discoverer. In the case of the Bahima, can they be considered as the originator of the breed? If a scientist discovers a unique gene in the Ankole, can he/she claim rights to this gene alone? What legal options would best protect the rights of indigenous livestock keepers and breeders? Is it through an intellectual property rights regime or a *sui generis* system? Although Uganda has moved further than its neighbours in regard to genetic material rightsin by having an Animal Breeding Act in place, there are still a lot of unanswered questions and issues to be addressed.

Collaboration with institutions

In the face of neo-liberal policies like privatization, the Ugandan government in conjuction with other stakeholders deemed it necessary to entrust an institution (the National Animal Genetic Resources Centre and Data Bank, or NAGRC&DB) with protecting and guarding the national interest in animal breeding. This is more so especially as regards the conservation and utilization of local genetics which in the short term are not profitable and so are not attractive to the private sector.

Through its Ankole Open Nucleus Breeding programme, which is to involve Bahima pastoralists, NAGRC&DB is spearheading efforts to conserve the Ankole cattle which are under threat from massive crossbreeding with exotic breeds. The programme involves the multiplication of superior animals at a central farm, the Nshaara Ranch. These animals will then be distributed to farmers. The farmers' best animals are to be brought back to the central farm for further breeding. The best bulls will then be recruited for semen production in the bull stud. *Ex-situ* conservation of Ankole cattle in form of semen storage is already going on at the Centre.

Conclusion

As with many other indigenous livestock breeders, there is an urgent need to safeguard the rights of the Bahima people whose essence in life revolves around the Ankole. Their contribution to the development of the Ankole cattle is undisputed, and they are major stakeholders in the conservation of this breed. However, market forces are forcing the Bahima to look beyond the beauty of their cattle, prompting them to allow into their herds more productive exotic genes in terms of meat and milk. Unfortunately, this on-going indiscriminate crossbreeding with exotic breeds poses a major threat to the revered longhorned cattle. Through NAGRC&DB, the government of Uganda is making efforts to cater for all interests related to the conservation, utilization and profitability of the Ankole cattle.

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Comments and discussion

- Land tenure within the community is communal, but more and more is being surveyed and individual title deeds granted. Within this process, some community members have been given small plots because they have under-reported the size of their herds.
- Those animals not eaten by the community are kept for food for visitors from communities with no objection to eatig them.
- President Museveni's love for cattle has aided the cause of the pastoral communities, but they still face problems associated with sedentarization.

Orog Nuur
Mongolia

Mendbaatar Osorjin and Dashdamba Damdin

Mongolia's 1 565 000 km² are home to 2.6 million people and 26 million livestock. From an early point in history Mongolian herders have been mobile and herding five kinds of animals (horses, cattle, camels, sheep and goats), according to natural conditions (pasture growth, drinking water and climate).

The Orog Nuur herders' community is located in Bogd soum, Bayankhongor aimag. This region is desert and mountain steppe. The community has 35 members. The community's objectives are to protect nature and improve their habitat, improve their livestock quality, livelihoods and work together, and to improve their skills and knowledge about nature protection.

The community's main problems include:

- Lack of information, cooperation and coordination, local institutions
- Lack of opportunities for processing and value addition
- Lack of access to services, credit, and markets

Community members work together to prepare for the winter, hay making and fodder gathering, the selective use and protection of pasture land, and the repair of wells and protection of the water supplies and springs .

There have been five recent historical periods in livestock development:

- Pre-1921 revolution
- Revolutionary period and the development of animal breeding until the Second World War (1921–40)
- Collectivization movement (1941–59)
- Collective and state farm period (1960–90)
- Present and future status of animal breeding after privatization.

Breeding and selection

The herders use both crossbreeding (horse–donkey, cattle–yak) and pure breeding methods. Selection criteria for males include the following:

Local Mongolian bulls

- **Hair** Dark brown and very dark in some body parts
- **Tail** Long and thick
- **Skin** Thick
- Short **body** and wide **muzzle**
- **Horns** Thick, strong and short
- **Neck** Strong, wide and with very well developed muscles
- **Breast** Wide, deeply positioned
- **Crest** Structured, straight and long
- **Head** Straight and high
- **Thigh** Thick shaped
- **Abdomen** Strong and well-muscled
- **Testicles** Well positioned.

Stallions

- **Skin** Dark black, dark brown is most suitable
- **Tail** Wide and hair long and thick
- Top of the **head** wide and wide **nostrils**
- **Ears** Long, eyelashes thickened
- **Eyes** Open, bright and dark
- **Neck** Thick, sternum lifted
- **Chest** Well muscled and strong
- **Withers** High positioned and strong muscled
- **Ribs** Round shaped
- **Rump** Well muscled and a bit bulging, not flat
- Wide **hips**, long **penis**.

Camels

- **Hair** Deep reddish or dark brown hair
- Good, muscular **body**
- Long thick **body hair**, strongly developed **knees**

The body shape and general outlook play important role too. The main characteristics are:

- **Breast** Wider than the general body shape
- **Head** Strong and carried high
- **Teeth** Strong and well presented
- **Neck** Strong and wide, strong muscles on front side of neck
- **Eyes** Big, round shaped and with a soft outlook
- **Tracks** Should be equal and have clear and clean outline
- **Hooves** Strong, thick structured and have a dark colour
- **Front legs** Strong and wide, shaped straight with well developed muscles
- **Testicles** Well developed and positioned
- Base of **hump** should be wide, humps should be far apart, and proportionately not too high, strong abdominal muscles.

Goat bucks

Adult males must be at least 1.5 years old before they are used for breeding. Old animals, or new animals without a breeding history, should not be selected. The main reason is because such animals are slow to gain weight and grow, so they weaken the herd structure. Young males to be selected for future breeding must receive the full amount of the mother's milk, so the mothers are not milked. Male goats cannot be used in breeding in one herd for more than 3 years.

Sheep

The wool structure of selected sheep must be fine, evenly distributed and curled. Mongolian sheep have fat tails. The tail has to be wide, big and long (almost reaching the hollow behind the knee joint). The animal must be healthy and strong so it has good chances of survival.

Environmental changes

- Degrading pasture
- Sand movement
- Falling lake levels
- Rivers drying up
- Change in local weather patterns.

Strengths and weaknesses of livestock

- Breeding methods
- Low inputs
- Ecologically pure products
- Livestock raw materials
- Selective use of pasture
- Dependence on nature and vulnerable to disaster
- Limited possibility to increase livestock productivity
- Pasture degradation.

Government and other support

The government recently took the initiative in livestock breeding, organizing breeding programmes, making investments, passing resolutions and laws, and so on. In April 1993, the parliament passed a law on the 'Protection of the health of Mongolian livestock and its gene-bank'. This sets down key points for the regulation and organization of animal breeding in Mongolia. According to this law, existing highly productive nucleus herds are to be kept under government control, and nucleus herds of indigenous livestock are to be restored.

National government programmes aim to protect livestock health and improve the quality of livestock and breeding services. The government implements many projects for improving livestock quality and livelihoods.

Our project uses a participatory, people-centred, process-oriented approach to empower local communities to build sustainable livelihoods, and to develop stakeholder consensus on sustainable, collaborative management of natural resources.

Raika
Western India

Hanwant Singh Rathore
Lokhit Pashu-Palak Sansthan, India

The Raika/Rebari are the largest pastoral group in western India (about 1.5 million people in Rajasthan). They breed camels, sheep, goats and cattle. They are largely landless, relying on short- and long-term migration to seek pasture for their animals. They live mostly in Rajasthan and Gujarat, but also migrate into other states (Madhya Pradesh, Uttar Pradesh, Punjab).

Our research is mostly with Godwar subgroup in Pali and Sirohi district, Rajasthan.

Livestock

Camels The Raika originally looked after the camel breeding herds of the Maharajahs. They believe they were created by Lord Shiva to take care of the first camel.

The Raika in Sirohi district have developed the 'Nari',cattle which had not been documented by scientists. Nari cattle defend their calves against leopards and know practically no diseases.

Sheep The Raika are breeders of the Boti sheep (scientific name: Marwari breed) which can endure droughts and always keep walking (even on three legs).

Goats The Sirohi goat (locally called Majetti) is also associated with the Raika community. It was recognized as more productive than exotic goats from Switzerland in the Indo-Swiss goat project.

Social and ritual meaning

The Raika give animals as dowry (*dhamini*). Traditionally, female animals were never sold, only exchanged at the time of marriages or during crises. Male breeding animals are often shared. During marriage ceremonies, the bridegroom has to sit on a camel.

Crossbreeding

Nari cattle are kept pure. It is felt that crossbreeding (with other local breeds) will affect their drought resistance.

There is a lot of crossbreeding of sheep between local breeds, but it is recognized that higher productivity is at the expense of drought resistance and makes the herd more vulnerable.

Young people

Many young men are attracted by the city, but they have problems finding employment. They sometimes come back and start a herd. There are also some very dedicated breeders among the young people.

Activities of LPPS

LPPS's activities include:

- Standing up against corruption.
- Public interest litigation against the Forest Department (the camel is becoming a threatened species).
- Linking issue of wildlife conservation to conservation of indigenous livestock.

Problems

Because they have no land, the Raika are most dependent on forests for grazing. But foresters see the Raika's sheep, goats and camels as destructive – although it is the two-legged animal that causes most damage. According to the management plan, the Forestry Department wants to prohibit grazing during the rainy season, when the Raika have no other place to go.

External benefits of pastoralism

Local non-pastoralists benefit from the Raika in various ways:

- Camels are important means of transportation for many of the most marginalized social groups, and an ecologically friendly source of draught power.
- The agricultural productivity of the area outside sanctuary depends on dung from pastoralists' herds.
- Nari cows and bulls are sought after by small farmers.

Making life difficult or impossible for pastoralists will have negative effects beyond the boundaries of the pastoralist society, and will have a negative impact on other rural people, on domestic biodiversity, and on national economies.

Alsipura Statement

Issued by the Indian Pastoralists and Herders Association on 23 March 2002

Members of pastoral communities from all over India, including Changpa, Raika/ Rebari, Gujjar, Toda, Dhangar, Malaimadu cattle breeders, Kurma sheep breeders, Vembur sheep breeders, Andhra Pradesh Sheep and Goat Rearers' Association as well as national and international NGOs seeking to protect the interests of pastoralists and other livestock rearers, met at the Training centre of Lokhit Pashu Palak Sansthan in Alsipura (near Sadri, District Pali, Rajasthan, India) on 22–23 March, 2002 to discuss their mutual problems and exchange experiences about their situations.

Pastoralists play an important role in the ecology of India. Their production of organic manure contributes to the maintenance of soil fertility. Their grazing controls invasive exotic species. Contrary to their reputation, pastoralists have many traditional practices for conserving vegetation, for instance by rotational grazing.

Pastoralists play an important role on the conservation of indigenous livestock breeds (such as one humped camel, Toda buffalo, Nari and Malaimadu cattle, Deccani sheep), while Adivasis conserve valuable poultry genetic resources (Aseel chicken). These breeds harbour a wide variety of adaptive traits, being able to cope with harsh climates and landscapes and resisting diseases that affect crossbred animals. It is imperative to conserve them.

Livestock breeders
Tamil Nadu, southern India

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SEVA, India

This paper describes four local breeds of cattle, two sheep breeds and a buffalo breed in Tamil Nadi.

Umbalacherry cattle

Umbalacherry cattle are spread throughout Nagapattinam, Thiruvarur and Thanjavur districts of Tamil Nadu. This breed has four district biotypes: Attukkari madu, Ganapathiyan madu, Venna madu and Sorriyankattu madu. These names reflect the person or families' maintaining the purity of these breeds over 3–4 generations. The estimated population is 20,000.

Origin myths Once upon a time a yogi was in deep meditation. A farmer of that village had a cattle, and he had coolies to look after the cattle. One day when the cattle were brought to the shed for the night one, cow was missing. This cow usually came to the shed an hour late. The coolie was concerned about what the cow did in this hour and the next day he followed it to find out. The cow went straight to the yogi in meditation and fed the yogi with its milk. The coolie who saw this was frightened. On noticing this, the yogi caught hold of the cow's forehead and blessed the cow saying. 'Since you have fed me with your milk and taken care of my hunger, from today your breed will spread from Umbalacherry. The world will speak of your name and fame.' That is why the cattle of Umbalacheny have a white mark on the forehead, the place where the yogi blessed the cow.

Characteristics This breed has white forehead, curved horns, short tail, white hooves and large stomach. It is noted for its strength and sturdiness. This breed is suitable for marshy rice fields of the Cauvery Delta region. It has a medium sized bullock with compact body and short legs. The udder is not well developed. The animal yields up to 3 litres of milk per milking with a lactation period of 6–10 months. The animal requires minimal maintenance and it thrives on paddy straw. It is a hardy, drought- and disease-resistant animal.

Uses Umbalacherry bullocks are used for wetland ploughing and transport of material through bullock carts. The animals are allowed to graze on paddy stubbles in harvested fields. During the off-season (when there is no crop in the field) the animals are herded in open pasture and penned at night to gather manure for the fields. Typically, a herdsman will look after a herd of 400–500 animals on terms mutually agreed between the animal owner and the herdsman. The owner also pays a charge of about 1 rupee to the landowner for use of his pastures and pens.

Factors affecting cattle population Access to drinking water and grazing lands are major problems. For example, in the Thalaignayiru block of Nagapattinam district, cattle ponds that were created for watering animals are uncared for or have been encroached on.

Grazing land land is being encroached by local farmers. Mechanization of tilling, the cost of maintaining bullocks and high wages threaten the existence of the breed.

Kangeyam cattle

Kangeyam cattle are a well-known draught breed from Tamil Nadu. The breed was developed by crossing local cattle with Amrith Mahal and Hilari breeds from Mysore. This was a systematic breeding effort during the 1900s by an individual family, the Pattagar of Palayamkottai (Nallathambi Sarkarai Mandradiar) near Kangeyam village. Later, the breed became popular with farmers belonging to the Gounder community in Kangeyam, Dharapuram, Vellakoil,

Kangeyam Thirupur, Palani, Karur, Perunthurai and Aravakurichi areas of Tamil Nadu. Many of these farmers have now switched to sheep and goats.

Only about 60 breeding bulls true to type are left now, compared with 2000 bulls during the 1950s. These bulls are maintained in Nathakadayur village by Pattayakar families. The total Kangeyam cattle population is estimated to be 470 000.

Special qualities Kangeyam bullocks were used earlier for drawing water from open wells for irrigating garden crops. They are now used for ploughing and carting farm produce. Since the cows are low milk yielders, they are invariably crossed with Jersey to improve milk yields. A pure Kangeyam cow yields less than 2 litres of milk per day. It is usually culled after 12 lactations. This breed is allowed to graze in *korangadu* pasture land.

Korangadu is a silvipasture system that covers thousands of acres and has existed for centuries. It is a typical grass+legume pasture of mixed annuals and trees. It has the following species:

- *Velamaram* tree (*Acacia leucophloea*)
- *Kolukottai* grass (*Cenchrus ciliaris*)
- *Vennampul* (*Trachys muricata*)
- *Ottanpul* (*Seltaria vericulata*)
- *Kurutupul* (*Cholris barbata*)
- *Cholapul* (*Chrysopogon montanus*)
- *Naripayathankodi* (*Phaseolus trilobus*)
- *Seppunerinji* (*Indigofera enneaphylla*)
- *Savarikodi* (*Merremia tridentate*)
- *Poonapudukukodi* (*Crotalaria globosa*)
- *Dadara* (*Borreria hispida*)
- *Hariali* (*Cynodon dactylon*)

The entire *korangadu* pasture land is fenced with thorny shrub *mullukiluvai* (*Commiphora berryi*). The land is ploughed only every 3 years. The seeds of annuals are not sown each year, but only once when the land is newly converted into *korangadu*. Four acres of *korangadu* is enough to maintain two adult cows and four calves or 20 sheep. Animals kept on this land will not have infertility problems. The *korangadu* pasture land provides grazing from November to January due to growth of grass during the northeast monsoon showers. When there is no grass in the pasture land during March to June, the cattle feed on the pods of *Acacia leucophloea*.

Social significance The cattle are gifted as *Achi koduthal* during the wedding of sisters' daughters. During the time of *Poo Pongal* festivals, milk and curd are taken in new pots, and during *Pattipongal* festival, cattle, goat, grains, sugarcane and new pots are exchanged among relatives.

Rituals Local people worship the cows at the time of giving birth of young ones. Cattle shandy (*Mattuthavany*) is held annually once in Kannapuram village. It coincides with the 'temple car festival' (*Therthiruvila*) of Mariamman Temple on *Chithrapournami* day – the full moon day of the Tamil month of *Chithirai* (April–May).

Selection Selection of bulls is based on the pedigree and phenotype of animals. When they are born, calves are red in colour, but they later change to grey. The horns are long and curve outwards and backwards. One pair of bullocks can pull a cart loaded with about 2 tons of agricultural produce.

In males selected for breeding, the tail should reach below the hock of the hind legs, the horns should be long, and the testicles located close together.

Male calves from cows in their 5th and 6th lactations are preferred for breeding. Only calves with good growth rate are allowed to become bulls; others are castrated. Castration will be performed in the Tamil month of *Karthikai* (November–December) when the *korangadu* pasture land is green with grasses and pods of *Acacia leucophloea*.

Crossbreeding For higher milk yields, farmers have their cows inseminated with

Jersey/ Holstein Friesian semen. Due to increasing use of tractors and farm mechanization, draught bullocks are rarely used.

Young people The younger generation is not interested in maintaining traditional breeds of cattle. Some are using their pasture to rear sheep and crossbred milch animals.

Role of government The announcement of a land ceiling has discouraged farmers from keeping large areas of grazing land, crucial for sustaining the cattle breed. A calf-rearing scheme for providing young calves at subsidized rates has also been withdrawn.

Toda buffaloes

The Toda buffalo breed is associated with the Toda tribal community in the Nilgiri Hills of Tamil Nadu. There are 1200 Toda families living in the Nilgiris, and they keep about 1500 Toda buffaloes. This breed survives the cold climate with temperatures of 0–20°C at an altitude over 1500 m above sea level.

Toda buffaloes are medium-sized animals with short legs and long horns. The horns are usually set wide apart and are curved inwards to form a semicircle. Females yield 2–3 litres of milk per day.

Social significance Buffaloes are given as a gift to brides. Buffaloes are treated as family wealth and are passed on to sons and daughters. At funerals, buffaloes were sacrificed as a gift to the dead person. It is believed that the soul of the buffaloes would accompany the dead person to the next world.

Rituals Buffalo ghee (clarified butter) is used as oil for lighting temple lamps. At the first new moon after childbirth, during the child's naming ceremony, and during the salt-giving ceremony to children, the presence of buffaloes is auspicious. Buffaloes are essential for the spiritual world and the social life of the Toda people.

Selection Male animals for breeding should have stout and short legs, thick hair, a wide forehead, long curved horns, long tail, and display wild behaviour.

Origin myths The goddess Tickirse created Toda buffaloes with a stick. When people were praying, buffaloes emerged out of ponds. According to the legend, only buffaloes with a certain horn form were domesticated, while other types were left in the forest.

Crossbreeding Crossbreeding with the semen of Murrah is practised, although the Toda are not convinced that the crossbred animals can perform adequately in the Nilgiri climate with its low temperatures and high rainfall.

Young people Young people show little interest in buffalo rearing due to their preference for modern lifestyles, shrinking pasture land, and lack of income from buffalo rearing.

Role of government The Forest Department has promoted plantations of eucalyptus trees, which have encroached on about 25 000 ha of pasture land. Wild animals prey upon buffaloes, and heavy mortality has been recorded due to conservation project for wild animals in the Nilgiris (Mudumalai wildlife sanctuary and Mukurthi National Park). The government has opened milk-procurement centres in a few locations. The mortality of young calves and non-availability of breeding bulls cause difficulties for the Todas.

Malaimadu cattle

The Malaimadu or Hill cattle breed is reared by the Konar, Thevar, Naickers and Moopar communities in Madurai, Virudhunagar, Theni, Dindigul and Karur districts of Tamil Nadu. Around 1200 families maintain about 30 000 cattle in a tropical zone where the temperatures ranges from 25 to 40°C and annual rainfall amounts to 800 mm.

Table 1. Malaimadu body colour and vegetation type

Type of terrain and vegetation	Body colour of animal
Nagarai river forest	Reddish brown (*Sembarai*)
Uduppu Parai forest	Grey (*Mayilai*)
Pullipathi forest	Red/brown spots (*Sembor*)
Kovilmalai forest	Light black spots (*Kadukkai por*)

Table 2. Rotational grazing for Malaimadu cattle

January–March	Plains
April–June	Hills
July–September	Plains
October–December	Hills

Population About 30 years ago, the cattle population was said to be more than 300 000. This reduction is due to various factors, including the non-issue of grazing permit by forest officials, and a lack of labour and tractorization which have decreased the demand for draught animals.

Use and characteristics Animals of the Malaimadu breed are small, sturdy and resistant to many diseases. The bullocks are useful for ploughing in the wetlands. The main reason for keeping these cattle is to pen them so they manure the fields. During the northeast monsoon in October–December, the cattle are sent to the forest for grazing. In the off-season, after harvesting of the paddy crop, the cattle are let into the fallow lands for penning and grazing.

Malaimadu draught bullocks are known for their strength, stamina and loyalty to their owner. The animals are said to attack enemies or thieves ferociously.

Cows and calves are given as dowry to brides. The dowry animals are identified by cutting or shaping the ears with a 'moon' or semicircle.

Cattle owners are respected because their animals supply manure. The manure sustains soil fertility for 3 years. Dung is also used in bone-setting.

Selection Male calves for breeding are preferably obtained from the third lactation. The bull's mother should be a high milk yielder. Other desirable traits include:

- **Horns** Straight or tilted forward.
- **Skin colour** *Vellai* (bright white), *mayilai* (milk white), *sembor* (red dots on white background or white dots on brown or red) or *karumbor* (black dots on white or white dots on black).
- **Tail** Short and thin and end above the hock.
- **Dewlap** Small in the neck region.
- **Chest** Wide and the body frame long.
- **Face and ears** Short, with projected eyes to add the attraction of the face.
- **Testicles** Small.
- **Skin** Pliable, soft and thin.

In addition, the bull must be ferocious in nature and taller than all other animals in the herd. It must have leadership capacity, able to lead the herd while grazing in the forest, and to save the herd from the attack of wild animals. The parents, especially the mother, should have bright skin colour, such as *vellai*, *mayilai*, *karumbor*, *sembor* and even *karumayilai* (grey).

Crossbreeding Malaimadu bulls are mated with local Jersey and Holstein Friesian crossbreeds. The offspring will be less prone to mastitis and able to withstand hot temperature and rains. The fat content of milk will also be improved.

Kachakatty Black sheep

Katchakatty Black is a sheep breed conserved by pastoral communities, including Konar, Mooppar, Pallar and Panyan, in Vadipatti block, Madurai District, Tamil Nadu. It is a completely black sheep known

for sheep fighting and amenable for penning to provide manure for local farmers. This breed has been maintained by 13 families. The sheep population is 538 animals. About 25 years ago, the population was about 3000, but it has now fallen drastically due to problems with forest grazing and occurrence of disease.

These villages are situated around the Vaguthumalai Hills in Vadipatti Block, Madurai District. The sheep are taken to the hills to graze. The families also raise a few goats along with their sheep flock.

The communities maintain the sheep flocks to support their livelihood. They earn income by the selling female and male lambs, and by penning the animals and providing manure to the fields.

The rams are known for sheep fighting. This is a sport practised during temple festivals. For sheep fighting, Katchakatty rams are preferred. Three-month-old rams are sold for approximately Rs 2000. From penning, the income is Rs 0.50 per sheep per day. To manure a 1-acre field, 100 sheep must be penned for 5 days. A jute-bag filled with manure produced by one sheep during a month sells at Rs 6 per bag.

Social significance Farmers give sheep as dowry. People from Thevar community are proud of giving black sheep as dowry. The society respects owners of black sheep because the animals are good for penning in the fields. Black sheep are also considered auspicious.

Black sheep with horns are preferred by Muslims for slaughter for the *Ramzan* feast. Black males are preferred for dedication to folk gods or as 'temple sheep' (*koil kida* in Tamil).

Characteristics The skin is completely black. The ears are small and appear underdeveloped or a vestiges (¾–1" in length). Females have horns in 10–15% of cases. The forehead should have a shallow cavity-like depression.

Selection Breeding rams are selected from the offspring of females in their third lactation. The rams should have short, stout legs, elongated horns, a wide head and elongated body. For a herd of 35 sheep, farmers maintain one ram.

Origin About 4 generations ago, different types of sheep were kept in Kachakatty village. Farmers at that time preferred black sheep as they are amenable for penning. The sheep have the habit of staying put for a longer time after sunrise. Other breeds will be get restless after sunrise and have to be taken for grazing. However the Kachakatty black sheep will sit for 2–3 hours longer at this time in the morning. This characteristic increases the dung quantity during penning. After noticing this, herders selected for black colour. In Tamil, *karuppu* means black, so the breed is named 'Kachakatty Karuppu'.

Crossbreeding To ensure the purity of the breed, crossbreeding is discouraged. Breeding occurs with the sheep of migratory pastoral communities who regularly visit during certain periods of the year.

Young people Uneducated youths or school dropouts in the same communities are interested in continuing their traditional lifestyle as sheep herders. However, they feel that officials insist on the herders' obtaining permission to graze animals in Vaguthumalai Forest.

Role of government The Department of Animal Husbandry has organized animal health camps (under pressure from SEVA and herders). Tamil Nadu Veterinary University is showing interest in *ex-situ* conservation of this breed.

Pulikulam cattle

Pulikulam cattle live mainly in the Sivagangai, Virudhunagar and Ramnad districts of Tamil Nadu. The cattle are maintained by local communities belonging to Thevar and Konar.

Origin myth The existence of the breed can be traced back 500 years. The present village of Pulikulam was once full of jungle. One day, a tiger came to a pond to quench its thirst. It was trapped by bushes on the banks of pond, so people named the pond the 'Tiger Pond' The cattle found in that village became synonymous with Pulikulam breed. The cattle are also known as Palingu Madu, Nattumadu or Manimadu.

Characteristics Pulikulam cattle have moderately long face and fine muzzle. The forehead is fairly broad, and the horns narrow and 2–2.5 feet long. The animal has a short, stout neck. The hump is short in the female and well-developed in the male. The body is compact and well-ribbed. The tail is long and has a tuft of black hair. The legs are strong, short and set well apart. The colour is usually grey and white.

Uses These cattle are usually used for penning in farmland. A herd usually contains 300–400 cattle. The bullocks are used for ploughing. The herders earn income by selling 6-month-old male calves at over Rs 2000 each. The Pulikulam breed is known for bull riding (*jallikattu*).

Problems The drinking water ponds in Manankathan and Pulikulam villages need to be desilted to provide drinking water for the cattle. During the months of Iyppasi and Karthigai (October–November) there is no space for penning the cattle in the Koomapatti area due to planting of paddy in the plains. Forest officials have prevented cattle from entering the forests since it was declared a sanctuary area. Those caught grazing there are threatened or fined heavily.

Forest officials are restricting access to pasturelands without considering the herders' need for pasture. Pathways that provide access to drinking water and grazing that cross the lower lands and the adjoining Western Ghats are also problematic. Sites such as the eastern part of Thaniparai up to Mavutru, which were pastureland, have been blocked by the Forest Department. Ponds in the foothills (Nagamma Dorani, Papparathan oorani, Sevittukilavan koil oorani, Tharmamkathavar ootru, Thaniparai otru, Karukkupathai oorani, Thottichi oorani) are also out of bounds for cattle. Forest guards impose fines if they catch animals watering at ponds in the forest.

Vembur sheep

We have identified 22 villages around Vembur, Pudhur block in Thoothukudi District where this breed is found. The estimated population of Vembur sheep is 2000.

Factors affecting population During the dry months there is acute water scarcity, while the rainy season brings torrential rains that make the herds vulnerable to diseases such as foot-and-mouth and rinderpest. The mortality rate rises as high as 12% in the wet months. The sheep require dry shelter during the nights in the wet season.

Comments and discussion

- The afforestation policy has greatly contributed to lack of interest among the youth in animal breeding.
- There has been a decline in the number of indigenous livestock breeds due to changing breeding practices, policy changes, education, climate, globalization, etc.

Fulani
Burkina Faso

Hedy Bühlmann
World Herders Council, Switzerland

The Fulani people perceive the cow as the mother of humankind. They believe that one can read information on future events such as danger, harsh weather ahead from certain signs (hair) on the animals. The Fulani are good breeders and they have a strong breeding tradition, which gives emphasis on good colour. Much of the breeding information is kept as a group secret.

Akamba
Kenya

Rebecca Musyoka
Kenya Small Farmers Union

The Akamba people live in the dis tricts of Machakos, Mwingi, Kitui and Makueni in Kenya's Eastern Province. They depend mainly on livestock since crop farming is risky because of harsh climatic conditions in the area.

Main types of livestock

- **Cattle** Zebus, Orma Boran, Sahiwal and crosses.
- **Goats** East African goats, Galla and crosses.
- **Sheep** Red Maasai and Black Persian.
- **Chickens**
- **Donkeys**

Uses

- **Cattle** Used for ploughing, transport, food, milk, dowry, hides and skins, manure and cash.
- **Sheep and goats** Used for milk, cash, food, feasts, festivals and dowry.
- **Chicken** Used for food, cash and gifts.
- **Donkeys** Used for transport and ploughing.

Special characteristics

Zebu cattle are resistant to tick-borne diseases. Orma Boran cattle yield a lot of milk, grow fast, have a high mature weight, and tolerate trypanosomiasis. They can withstand harsh conditions, prolonged heat, poor pastures and scarce water.

Selection

The Akamba select against black colour because this attracts pests and tsetse flies. They select male breeding animals for size, strength, new blood (i.e. animals from

other herds), white and brown colour, and a lineage that frequently gives birth to twins. They select female breeding animals for their twinning ability, milk, colour size and conformation. The distinguish types and breeds through the animals' colour, shape, conformity, growth rate, ears and horns.

Crossbreeding

The follwoing crossbreeding is practised:

- Between Zebu, Sahiwal, Oroma Boran and exotic breeds.
- East African goat and Galla, and soon the Toggenberg.
- Red Maasai and Black Headed Persian sheep.

Myths

- You cannot mix milk from a mother and daughter in the same container.
- If your sheep gives birth to twins, you have to give one to your nephew.
- You cannot sell an animal with physical deformities.

Attitudes to livestock

The Akamba value livestock as their main source of income. The animals also provide status and a pastime.

Government policies

The government has neglected dry areas in its breeding support programmes. The focus of the government is on production, and there is no biodiversity conservation policy. There is a shortage of grazing land.

Mbororo
Cameroon

Ali Aii Shatu
Mboscuda, Cameroon

The Mbororo are originally a nomadic and pastoralist people. They are ethnically diversified into three major subgroups (the Jafun, Aku and Wodaable), who are found in Cameroon. The majority of the Jafun and many Aku are semi-sedentary, but still principally grazers. They entered Cameroon through Adamawa from northern Nigeria in the early 20th century, and some settled in Sabga in North West Province of Cameroon by early 1905.

The Mbororo are a significant minority in Cameroon. They are found in Adamawa, East, North West, North and West provinces, and in almost all divisions in these provinces. In the Centre Province they are in Mbam and Inoubou divisions. In the Littoral Province they are in Mongo Division. In the South West Province they are found in Akwaya and Maga in Lebialem.

With a population of 1 920 000 people they compose almost 12% of Cameroon's inhabitants. In the North West Province their population is estimated at above 250 000 people. The Mbororo rear cattle, and to a lesser extent horses, sheep, chickens and goats.

Social significance

Their animals are a form of prestige to the Mbororo. They are also needed for the community's livelihood and survival. They are the source of milk, meat and family income, and are used for social aspects. Cattle are of great social importance in the Mbororo community whose whole lives revolve around cattle. These animals are used for dowry, bride wealth, child naming at birth, religious feasts, gifts, entertainment of guests, and during traditional ceremonies.

The Mbororo see their animals as clean, pure and upright, with dignity, and confer ingstatus on the owners (compared to livestock such as pigs raised by other communities). The animals are regarded as members of the family and are treated as such, even though they also provide economic sustenance. Other communities, on the other hand perceive their animals merely as a source of family income and protein.

Selection and breeding

Criteria for selecting male breeding animals include:

- Progeny with good milk and beef production
- Body conformation
- Colour
- Type of breed
- Calm and gentle behaviour
- Health status.

Cattle breeds kept by the Mbororo community include:

- **Red Fulani** (Mbororoji) Red in colour, long horns and very beautiful.
- **White Fulani** (Akaji) Smaller in size, white in colour, most often with a black nose. This breed is very resistant and adaptable to poor grazing areas.
- **Gudli** Multicolored (reddish, black, white, spotted, etc., large in size and produces a lot of milk.

Origin myths

The sea god summoned the leader of the Mbororo and taught him a song. After the leader sang the song, cattle started coming out of the sea towards him. The god instructed him to lead the cattle without looking back. Along the way, the man was terrified by the large herd behind him. He defied the god's instruction and looked behind just as a very big bull was coming out of the sea. At this, the bull mooed and retreated to the sea. Thus cattle are part of the Mbororo person's life, and much time is devoted to cattle. Prestige and honour lies in the number of cattle one has in one's herd. The nomadic nature of the Mbororo is caused by their allegiance to cattle.

Crossbreeding

Crossbreeding is done between local breeds and exotic breeds. The local breeds are bred with exotic breeds from Europe and America such as Holstein Friesians, Jersey, Brahma and Boran.

Young people

Most youths in the Mbororo community tend to divest from cattle and invest in other businesses, though they reinvest profits from such enterprises in cattle rearing.

Comments and discussion

Pastoralists share many similarities:
- They have a strong attachment to their livestock.
- They have similar uses for their animals, and keep them for similar reasons.
- They have similar criteria for selection for breeding.
- They suffer similar threats.

The initial recognition of the group should assist livestock keepers and safeguard them from risks.

Interest among young people in livestock is dwindling because of urbanization and modernization.

Government policy neglects pastoralists. They should assess impacts of donors – counterproductive objectives.

Nevertheless, it should be possible to sustain the pastoralist lifestyle. Pastoralists are a group that deserves recognition, since they have a place in the future. Middle-aged people have experienced both lifestyles and should be able to sustain the pastoralist lifestyle.