Local Livestock For Empowerment

The LIFE Network
Imagine the world in black and white...

Imagine if all cows were black and white.
If all the pigs were pink.
If every sheep, and every chicken, were white.

Fanciful? Unfortunately not. Many livestock breeds are dying out. Between 2001 and 2007, 62 breeds disappeared. According to the Food and Agriculture Organization of the United Nations, the world has already lost 10% of its breeds – and that is counting only those that have been documented.

A breed becomes extinct almost every month. An estimated 20% of breeds are thought to be at risk. Pushed out by economic and social changes, they are being replaced by exotic breeds – such as those black-and-white cows and pink pigs – that produce more, but are more costly to keep.

The value of local breeds

The world has some 7,600 livestock breeds, nearly all developed by farmers and herd- ers over centuries of breeding and selection. These breeds are adapted to often-harsh conditions – deserts, icy mountains, tropical forests, drought-prone savannah. They are hardy, resistant to pests and diseases, and able to survive on meagre feed and little water. In difficult conditions, they produce a wide range of products, pull ploughs and carts, and produce dung to use as fuel and fertilizer. They are vital to the livelihoods and survival of millions of livestock keepers worldwide.

The LIFE Network

Local Livestock for Empowerment (the LIFE Network) is a network of non-government organizations and individuals who are concerned about the future of local livestock breeds, and about the people who breed these animals and rely on them for their livelihoods.

This booklet describes the work of the LIFE Network and draws some lessons from its experiences.
WHAT WOULD HAPPEN if a large number of livestock breeds were to die out? Here are some of the consequences of losing a large percentage of the world’s breeds:

Loss of ecosystems

Local breeds are part of their local agro-ecosystems, so are important links in the web of wild and domestic biodiversity. Many ecosystems depend on these breeds: without them, farming systems would become unsustainable, grasslands would turn into worthless bush, woodlands would become choked with brambles, and many rare plant species and wildlife habitats would be lost.

Poor use of resources

Unlike high-yielding exotic animals, local breeds forage on the natural vegetation and eat low-grade crop by-products such as straw and stubble. They do not need expensive concentrates or feed supplements. Replace local breeds with exotics, and it is necessary to grow fodder (which takes land and fertilizer that could be used to grow food) and transport it (a wasteful source of carbon emissions).

Food insecurity

Exotic breeds have to be pampered: without special feed, housing and veterinary care, they quickly fall ill and fail to produce. Local breeds can cope better with environmental challenges such as high temperatures and diseases. They are often resistant to infections which kill exotic breeds. For many livestock keepers, it is better to have a hardy cow that thrives on local resources and produces a little milk every day, rather than an exotic that is unviable in the long run.

Loss of breeding material

Many exotic breeds have a dangerously narrow genetic base. Local breeds contain genes that may prove vital for animal breeders in combating the next pest or disease outbreak.

Less economic potential

Raising local breeds of livestock is one of the few ways to use vast areas that are too wet, dry, hot or cold for crops. Because of their special characteristics, these breeds have the potential to produce specialty products that command a niche market – if one can be found.
Poorer ability to adapt to climate change

Unlike exotic breeds, many local breeds can cope well with high temperatures. That makes them better suited to adapt to climate changes and global warming.

Livelihoods destroyed

Over 700 million people worldwide rely at least partially on livestock for food, income, labour and fuel. As they often live in harsh environments, their animals need to be adapted to the local conditions. A herder without suitable animals has little choice but to move into the city in search of work as an unskilled labourer.

Loss of culture and knowledge

In many cultures, peoples’ lives revolve around their livestock. For a Mongolian camel herder, an Argentinean shepherd and a Kenyan pastoralist, animals are not just a source of food and income; they are a savings bank, a wedding gift, a link to a potentially hostile clan, a source of pride, a tie to spiritual roots, a symbol of identity.

Livestock keepers have detailed traditional knowledge about their animals, their behaviour, how best to keep them, and how to prevent and treat their diseases. Lose these breeds, and this rich store of wisdom evaporates.

The best way to conserve breeds

There are three main ways to conserve livestock breeds:

Cryopreservation
This involves deep-freezing sperm and eggs.

Ex-situ conservation
This means keeping breeding animals outside their own environment, for example at a research station or on a government ranch.

In-situ conservation
This enables farmers and herders to maintain breeding animals in their original environment.

While all three have a role to play, in-situ conservation is best: it enables the animals to continue to evolve and adapt to their changing environment – a feature that is particularly important as climate change becomes more pronounced.
Why are local breeds declining?

Most local breeds are kept by small-scale farmers or pastoralists. They require few external inputs, though managing them may require labour and much skill. A poor family can keep a flock of chickens or a few goats: they cost little to maintain but produce eggs, meat and milk that help the family make ends meet.

Exotic breeds, on the other hand, require expensive housing, feed, insemination services and veterinary care. To break even, livestock keepers must keep more animals – pushing livestock keeping beyond the reach of most people. The result: large, capital-intensive livestock companies that raise exotic breeds force small-scale livestock keepers and their local breeds out of the market.

Global and national policies also favour high-input, industrial-scale livestock production. So does most research on livestock. They neglect indigenous breeds and local livestock production systems that are integrated into the local ecosystem. Supermarkets demand products that conform to strict standards. Variety is out; uniformity is in.

At the same time, many policies actively discriminate against local breeds and production systems. Pastoralists are fenced out of their traditional grazing areas; misguided regulations force small-scale producers to conform to costly “biosecurity” measures; marketing and export rules discriminate against animals and products raised under local conditions.

Examples of declining breeds

Red Maasai sheep, East Africa
Raised by the Maasai in Kenya and Tanzania, the Red Maasai sheep is a hardy animal that appears to have some resistance to internal parasites (worms). It is becoming hard to find because of cross-breeding with exotic dairy cattle.

Aseel chickens, India
Aseel chickens in Andhra Pradesh are among the oldest known poultry breeds. They have huge cultural and livelihood significance for the Advasi people. Government-supported replacement with other breeds makes it increasingly difficult to find pure-bred Aseels.

Uriu cattle, Vietnam
Uriu cattle are kept by smallholder rice growers in the Nghe An region. Multi-purpose animals, they are especially used to pull ploughs. Because the soil is stony, mechanized land preparation is not possible in this area. But cross-breeding with Indian humped cattle is threatening the Uriu’s survival.

Why are local breeds declining?
The Local Livestock for Empowerment (LIFE) Network is an action research and advocacy network that aims to secure and improve the livelihoods of pastoralists and small-scale livestock keepers by promoting the sustainable use and conservation of local breeds. The network’s membership includes NGOs working at the grassroots level, herders’ associations, scientists, volunteers and individual supporters. The network was formed in 2000.

The LIFE Network sees pastoralists and small-scale livestock keepers as central actors in biodiversity conservation. It believes in using local breeds as a basis for sustainable rural development. It seeks to support production systems which benefit livestock keepers, their animals, biodiversity, the environment and the consumer.

LIFE Network goals

- Conserve livestock diversity in-situ, in their original environments.
- Empower livestock keepers who conserve biodiversity and involve them in national and international policy processes.
- Promote socially inclusive and ecologically sustainable livestock farming that is in tune with nature.
- Support the development of diverse products from local breeds through research, appropriate technologies, value addition and marketing.
- Strengthen rural income opportunities based on local breeds.
- Advocate holistic conservation approaches which preserve all components of biodiversity: wildlife, local livestock breeds or species, ecosystems, and traditional wisdom.

Activities

LIFE Network activities have focused on seven areas:

- Livestock Keepers’ Rights
- Breed documentation and biocultural protocols for livestock-keeping communities
- Awards to livestock keepers
- Marketing niche products from local breeds
- Networking
- Training and capacity building
- Advocacy and public relations.

Mobility is vital for the survival of many breeds: pastoralists are constantly on the move in search of pasture and water.
Livestock Keepers’ Rights

The 2001 International Treaty on Plant Genetic Resources for Food and Agriculture established the concept of Farmers’ Rights. These enable farmers to continue conserving and innovating crop biodiversity, and recognize and reward them for creating and maintaining crop genetic resources. The treaty allows farmers to sow and trade seed that they have grown – preventing big companies from gaining a monopoly over this vital resource.

But what about livestock? There is no equivalent international agreement to promote the conservation of livestock breeds. Livestock keepers fear that without such safeguards, local breeds will die out, and they will lose the right to breed the animals that they have maintained for centuries.

In 2003–7, the LIFE Network facilitated a series of meetings of grassroots livestock keepers from over 20 countries. These developed the concept of “Livestock Keepers’ Rights” (see box).

Livestock Keepers’ Rights

Three principles
1. Livestock keepers are creators of breeds and custodians of animal genetic resources for food and agriculture.
2. Livestock keepers and the sustainable use of traditional breeds are dependent on the conservation of their respective ecosystems.
3. Traditional breeds represent collective property, products of indigenous knowledge and cultural expression of livestock keepers.

Five rights
1. Livestock keepers have the right to make breeding decisions and breed the breeds they maintain.
2. Livestock keepers have the right to participate in policy formulation and implementation processes on animal genetic resources for food and agriculture.
3. Livestock keepers have the right to appropriate training and capacity building and equal access to relevant services enabling and supporting them to raise livestock and to better process and market their product.
4. Livestock keepers have the right to participate in the identification of research needs and research design with respect to their genetic resources, as mandated by the principle of Prior Informed Consent.
5. Livestock keepers have the right to effectively access information on issues related to their local breeds and livestock diversity.

A delegation from LIFE campaigned for Livestock Keepers’ Rights in Madrid, Spain

Camels in Rajasthan: Policy changes are needed to conserve this icon of India’s desert state

Photo: Rolex Awards for Enterprise
On the agenda, but not yet in law

The LIFE Network presses for Livestock Keepers’ Rights to be recognized by governments and in international law. Many policymakers, government officials and scientists are sympathetic, and Livestock Keepers’ Rights are now firmly on the international agenda – though there is still a long way to go before they achieve formal recognition under international law.

Meanwhile, the LIFE Network has developed a Code of Conduct (LIFE Network 2010 – see the box on the right) to act as a guide for researchers, companies and governments when working with livestock keepers. Livestock keepers can also use the Code when advocating for their rights in national policy decisions.

Lessons on rights

Specialist skills

It takes special skills and knowledge to bridge the worlds of livestock keeping and international law. The LIFE Network draws on the expertise of lawyers, policy advocates, community organizers and scientists to make the case for Livestock Keepers’ Rights.

More on Livestock Keepers’ Rights


Köhler-Rollefson, I., and LIFE Network. 2007. Keepers of genes: The interdependence between pastoralists, breeds, access to the commons, and livelihoods. LPPS.


Imagine you spend a lifetime cultivating roses. You develop the perfect bloom: it is beautiful, fragrant and hardy. Then along comes a stranger, who takes a cutting and uses it to grow and sell copies of your rose – without your knowledge or permission.

Annoyed? That is how livestock keepers feel when outsiders exploit their animals. Breeds and other animal genetic resources (such as individual genes that confer valuable traits) do not exist in a vacuum. They were developed through generations of exposure to unique environments, and years of selection and breeding by livestock keepers. But unscrupulous outsiders may “bio-prospect” genetic resources – identifying useful traits and building them into other animals, without the knowledge or permission of the originators.

Documenting breeds

To make the association between breeds and communities visible, and to put traditional knowledge on record, the LIFE Network has developed a participatory method for documenting breeds. Unlike previous methods, this is based on the indigenous knowledge of the people who raise them. Previous methods focused on the breeds’ appearance and production characteristics – not on their history, cultural associations or production system.

In Uganda, for example, the LIFE Network helped Bahima pastoralists develop a book on their Longhorn Ankole cattle. It has also used this method with pastoralist groups in India and Kenya.

Biocultural protocols

It is a further step to developing a biocultural protocol. This is a document developed by representatives of livestock-keeping communities in consultation with lawyers and specialists on indigenous knowledge. It details the community’s breeds, its traditional knowledge of the animals, and its lifestyle in relation to the environment. It puts on record the community’s role in the management of biological diversity – its livestock and its contribution to managing the ecosystem.

Preparing a biocultural protocol helps community members realize the richness of their own knowledge and culture, and learn about their rights under national and international laws, including their right to conserve their breeds. Instead of being passive recipients of outside interventions, they become active players in claiming their rights.

The LIFE Network assists livestock-keeping communities to develop biocultural protocols. It has so far helped the Raika and Lingayat in India, the Pashtoon in Pakistan and the Samburu in Kenya develop such documents.

Lessons on documentation

Listen carefully

It is necessary to listen closely to the interests and priorities of livestock keepers in order to ensure that they have a voice. Outsiders may make faulty assumptions: for example, many livestock keepers are more interested in conserving their way of life than in benefiting financially from their breeds. Frequent meetings and close collaboration with grassroots livestock keepers are vital to ensure that the LIFE Network is representing their interests.

Empowerment, not representation

Rather than speaking on their behalf, the LIFE Network aims to give livestock keepers themselves a voice. That means ensuring they are aware of the issues that affect them, and providing them with forums where they can express their views.
The contribution that livestock breeders make to the conservation and further development of their breeds is seldom acknowledged. That is why LIFE Network partners in India have begun recognizing individuals and communities for their efforts in rearing and conserving local breeds.

In 2009, the LIFE Network, in collaboration with SEVA and supported by the National Biodiversity Authority of the Indian government, presented awards to 24 pastoralists and breeders associations in eight Indian states. The awards included a certificate and Rs 10,000 in cash.

The award winners were chosen for their involvement in the conservation of local livestock breeds.

The Indian National Biodiversity Authority has agreed in principle to continue such recognition for livestock keepers every year – similar to the awards conferred on farmers who conserve native crop varieties.

The LIFE Network recognized the contribution of 24 pastoralists and breeders’ associations to conserving breeds in eight states in India.

The Chilika buffalo is adapted to feed on vegetation in the brackish wetlands of coastal Orissa.
LOCAL BREEDS HAVE often unique characteristics that can be turned into specialty products. Examples include coloured wool or hides, extra-fine fibre, and meat, milk and eggs with special tastes. These can be further processed, capitalizing on traditional processing techniques and designs. While such products may be unsuitable for mass markets that demand a highly uniform product, they are ideal for certain market segments. But they must be marketed the right way, for example by stressing local ties (since these breeds are found only in certain localities and are raised by certain ethnic groups) and ecological production conditions.

Examples of niche marketing

Argentina
The Linca sheep breed is raised by the Mapuche people in the foothills of the Andes in Patagonia. There is little demand for its coloured wool, so flocks of Linca have been declining. A network of Mapuche women has launched a community sales outlet to sell ponchos and other traditional items made from the Linca wool.

Kyrgyzstan
In the Pamir mountains, a local breed of goats produces ultra-fine cashmere. Herders currently sell the whole fleece, which has low value; they could earn more if they were to comb out the finest cashmere before shearing the fleece. A local NGO is linking them to potential buyers in Europe and North America.

India
In Rajasthan, the numbers of dromedary camels have been declining as Raika herders have been excluded from their traditional grazing grounds, and as camels have been replaced by tractors to pull carts and ploughs. New hope has come from a successful campaign by Lokhit Pashu-Palak Sansthan, a LIFE Network member, to permit the marketing of camel milk. A new range of camel-milk-based dairy products, including ice cream, has boosted the value of camels and the Raika’s interest in maintaining their herds.

Mauritania
The Tiviski dairy in Nouakchott, the Mauritanian capital, has set up a system to collect camel milk every day from herders in the south of the country, and bring it hundreds of kilometres to Nouakchott for processing. Tiviski has also developed a cheese from camel milk and is trying to export it to Europe – but has met with bureaucratic barriers from the European Union.

Promoting marketing of local breeds

The LIFE Network promotes niche marketing efforts through documenting and analysing projects, initiating and supporting niche marketing projects, and lobbying for a favourable policy environment. The goal is to help livestock keepers earn more from their existing lifestyle and conserve their breeds.

Lessons on marketing

Generating employment
Developing and marketing products from local breeds can generate employment and income for livestock keepers, processors and traders.

Benefits for women and the poor
Initiatives to develop niche markets often benefit women and the poor, since it is they who tend to keep local breeds and do work such as spinning and weaving.

Conserving breeds, environment and culture
Niche marketing of products from local breeds can reverse the decline in the breeds, and conserve both environment and cultural values.

The 2010 book Adding value to livestock diversity draws lessons from eight niche marketing efforts around the world (see details below).

More on marketing

Networking

The LIFE Network consists of a small group that links and collaborates with like-minded organizations and individuals to further the use and conservation of local livestock breeds and sustainable livestock production. Networking tools include the participation in mailing lists and networks, attending workshops, conferences, consultations and other meetings, and the organization of common activities. The network also supports and advises projects of its members and other organizations on local breeds and knowledge.

The network also facilitates interaction and dialogue between stakeholders in livestock development. It does this by organizing multi-stakeholder workshops, consultations, writeshops and training courses. Such activities often serve more than one purpose. Writeshops, for example, have the main goal of producing books or other information materials, but in addition they further information exchange and networking among participants. Multi-stakeholder workshops and training courses help raise awareness on topics addressed by the LIFE Network.

Such activities enable the network to identify committed new members, learn from others’ experience, refine its own goals and positions, and expand its outreach.

Lessons on networking

Flexibility rather than formality

The LIFE Network’s success is based on the willingness of its members to join together as required on subjects that interest them. For a small network like LIFE, a loose arrangement is more effective than a formal structure. Its activities are need-based rather than structure-driven, allowing the network to react flexibly to new situations.

Leveraging resources

The LIFE Network tries not to replicate others’ efforts. For example, it does not have its own email discussion group; members contribute to the Endogenous Livestock Development Network, which addresses a broader set of subjects.

More on networking

LIFE Network
www.lifeinitiative.net

Endogenous Livestock Development Network:
www.eldev.net

Listening to what women pastoralists have to say in India
Training and capacity building

LIFE Network members offer training on Livestock Keepers’ Rights, breed documentation, community-based breed conservation, biocultural and community protocols, and people-centred livestock development. Trainees come from livestock-keeping communities, non-government organizations, government, universities and other institutions.

Training commonly uses a mix of lectures, discussions and field activities. Besides teaching new methods, they aim to make trainees aware of the importance of local breeds and resources and the role of livestock keepers in developing and conserving these breeds. Many LIFE Network training courses have mixed groups of participants (e.g., livestock keepers and government staff) in a conscious attempt to further interaction and understanding between these groups.

The LIFE Network also provides hands-on training in advocacy: it invites a few newcomers from interested civil society organizations and universities to participate with experienced network members in national and international negotiations and lobbying activities.

Lessons on capacity building

Documentation for empowerment

In the LIFE breed documentation method, herders learn how to document their breeds from their own point of view and in their own language. Both the process and the resulting document are important for capacity building and empowerment.

Training multiple stakeholders

Involving different groups of stakeholders in training can bridge gaps between them and foster mutual understanding, respect and collaboration.

Involving women and young people

Many livestock keeping societies are highly conservative, with older men making most of the decisions. Training and capacity building must also target younger people and women, who are often the ones directly responsible for caring for the animals.
Advocacy and public relations

Publications and films
LIFE Network publications are aimed at making information on this sometimes complex subject accessible to as wide an audience as possible. Most publications are jointly published by LIFE Network members. Network members have also produced a number of films on local breeds, Livestock Keepers’ Rights and biocultural protocols.

Networking and training
The activities described on the previous two pages also raise awareness on the value of local breeds and the importance of their keepers for their development and conservation.

Lessons on advocacy

Constructive dialogue, not confrontation
The LIFE Network has developed close relationships with various government and international organizations in order to promote the concept of Livestock Keepers’ Rights.

Contributing expertise
LIFE Network members can contribute valuable specialist expertise to government delegations during international negotiations on livestock issues.

Side-events
The network organizes presentations, exhibits and debates at national and international conferences. Such forums have included the international intergovernmental negotiations on animal genetic resources of the Food and Agriculture Organization of the United Nations, the Convention on Biological Diversity, the World Intellectual Property Organization, and meetings of their subsidiary bodies. Other outlets have been scientific conferences such international conferences on animal production and organic agriculture.

More on advocacy


Films on Livestock Keepers’ Rights
Biocultural protocols and access and benefit sharing: [http://tinyurl.com/yjnrbep]
Developing biocultural protocols among the Raika (India) and Samburu (Kenya): [http://tinyurl.com/y53p3l]
The LIFE Network consists of a core group of active members and a wider network of supporting partners.

Coordination

The network has an international board, a secretariat and regional coordinators for Africa and Asia.

Supporters

The LIFE Network is grateful to the following organizations and individuals which have supported its work:

Organizations

- Bread for the World
- Christensen Fund
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- Bruno Haas
- The Stürz family

Livestock keepers are concerned about their livelihoods. Meetings, like this one in India about the Forest Rights Act, often attract large numbers of people.

In 2007, a LIFE Network delegation lobbied delegates to an international conference on animal genetic resources in Interlaken, Switzerland.
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Cover photos
Front: Documenting cattle breeds in Uganda
Back: Dancing camels are a unique part of Rajasthan’s tradition and culture.

Photo credits
Ilse Köhler-Rollefson: pages 4 (top), 6, 7 (bottom), 8, 9, 10, 11, 12, 14, 15, back cover; Evelyn Mathias: cover, pages 1, 2, 4 (bottom), 5, 13; Rolex Awards for Enterprise: page 7.