

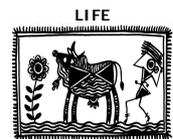


Securing tomorrow's food

Promoting the sustainable use of farm animal breeds



Issues and options



Local Livestock For Empowerment of Rural People



MISEREOR

Two breeds vanish every week...

Our farm animal breeds are disappearing at an alarming rate. Of the 6400 recognised breeds, about 1000 have become extinct in the last 100 years – 300 during the last 15 years alone. Now, it is estimated that two livestock and poultry breeds die out *every week*. These are breeds that people and the environment have shaped over the last 10,000 years.

While there has always been some loss of biodiversity, the disappearance of breeds increased dramatically during the 20th century. The Food and Agriculture Organization (FAO) warns that another 2000 breeds are at stake if no countermeasures are taken.

This alarming loss of biodiversity is linked to decreasing cultural and linguistic diversity: human cultures and languages are also vanishing rapidly. If a culture or way of life disappears, it irretrievably takes with it a wealth of traditional expertise, and the domestic animals and plants that are the basis of its food-production system.

... threatening herders and smallholders in marginal areas...

Livestock and poultry play a vital role for the world's poorest people. Seventy percent of the world's rural poor depend partially or totally on their animals. That includes 640 million subsistence farmers in rainfed areas, 190 million pastoralists in arid or mountainous zones, and more than 100 million people who do not own land.

The traditional breeds kept by pastoralists and farmers in marginal areas are well-adapted to climatic extremes. They are resistant to many of the diseases that plague "modern" breeds. They can survive without expensive feeds and inputs. They can live and reproduce under harsh conditions –

desert, semi-desert, mountains and forests. They convert natural vegetation into meat, milk, eggs, fibre, fertiliser and fuel.

But animals are more than this. For farmers and pastoralists, they also represent:

- A source of cash income.
- A source of draught power and transport.
- A form of savings – a "walking bank account".
- A buffer against crop failure and other risks.
- A means of employment.
- A way to access and use common land, community forests and other common property.
- A support for community networks and culture.

In some areas where crops cannot be grown, keeping livestock is the only way people can survive. The disappearance of locally adapted breeds directly threatens the livelihoods of people in these areas.

... and the food security of us all

Local breeds may carry genetic material of immense value. When a breed becomes extinct, the whole world loses some of its ability to react to changing environmental conditions, resist unforeseen diseases, and respond to changes in human dietary preferences. This undermines the food security of the poor – and potentially of us all.

Why are we losing animal diversity?

Our animal breeds are becoming extinct for several reasons including:

- Agriculture and animal production are becoming more intensified and commercialised.

- Uniform high-yielding breeds are being promoted, and local breeds are being crossbred with these “improved” stock.
- Policies often disadvantage ethnic minorities and smallholders, weakening their production systems and the associated breeds and knowledge.
- Many traditional breeds are confined to areas with high risk of drought, civil strife and wars. The resulting mass migration causes a further loss of breeds.
- Inappropriate development aid focuses on short-term objectives.

The intensification of animal production

As modern commercial livestock production expands, it relies on fewer and fewer breeds. For instance, Holstein cattle account for 60% of European and 90% of North American dairy cattle. Because of intensive sire selection, by 2015 the genetic diversity within this breed is projected to correspond to that of only 66 animals. If a disease to which the breed is susceptible breaks out, the economic damage would be enormous – as all animals have a similar ability (or disability) to cope with the disease. The situation is different for herds consisting of less uniform animals because some may be able to resist the disease and thereby slow its spread.

The demand for meat and livestock products in developing countries is predicted to increase greatly over the next 20 years. Unless appropriate countermeasures are taken, this will lead to the extinction of more local breeds.

Crossbreeding

In the past decades, crossbreeding with exotic breeds has been widely promoted in developing countries. But many attempts have proven unsuccessful. It is increasingly evident that crossbreeding works only in certain favoured areas.

Crossbreeds with exotic animals are often not as well adapted to local climatic and management conditions as the local pure breed. Even if a crossbreed has higher production potential than the local breed, it is unlikely to perform to its maximum under these local conditions.

Large-scale crossbreeding without appropriate measures to conserve sufficient numbers of purebred animals threatens the survival of the local breed.

Inappropriate policies

Few governments support the small farmers and pastoralists who have developed and sustained many distinct livestock breeds. Policies, incentives and subsidies commonly favour intensive, large-scale producers, neglecting the fact that smallholders do make substantial contributions to the economy. In India, for example, livestock contributes about 30% of the total farm output, and 80% of livestock products come from small farmers with 3–5 animals and less than 2 hectares of land. Nevertheless, official development strategies, such as that in the Indian State of Andhra Pradesh, favour large-scale commercial dairy and poultry complexes and promote crossbreeding.

The politics of globalisation put governments under heavy pressure to become competitive. They leave little room to support small producers. So globalisation reinforces the trend towards intensive livestock production.

How to conserve diversity

The most rational and sustainable way to conserve farm animal breeds is to maintain them as a functional part of local production systems. Measures should be comprehensive and enable communities to continue and improve their animal production.

The FAO has taken the lead in acquiring and disseminating information on local breeds worldwide. FAO has also

developed and is implementing the *Global Strategy for the Management of Farm Animal Genetic Resources* and the preparation of the *First Report on the State of the World's Animal Genetic Resources*.

These efforts are useful, but they are not enough. To stem the tide of diversity loss and to conserve farm animal breeds on a large scale, we must support the creation of economic and political conditions that support *in-situ* conservation (within the local production system). This means supporting farming and pastoralist communities to manage their own animal breeds. It also means mobilising widespread grassroots participation in this effort.

What action is needed?

International agenda

- Establish a special forum to discuss intellectual property rights related to animal genetic resources.
- Build up international framework regulations that recognise small-holders' and pastoralists' rights over the breeds they have created and promote access and the fair and equitable sharing of benefits arising from the use of animal genetic resources.
- Lobby for changes in World Trade Organization regulations to allow poor countries to protect their food producers, agricultural biodiversity and local trade.

National agenda

- Develop policies and legislative regulations which support the sustainable use of indigenous breeds.
- Involve actively farmers and small-holders in the development of breeding policies.
- Secure access for pastoralists to pasture, water and other key resources.

Community action

- Document and disseminate information and knowledge about indigenous breeds and their value.
- Raise awareness and promote networking about animal diversity.
- Establish and improve marketing for the products of indigenous breeds – which often are niche products.
- Support the development of community-based organisations and breeding organisations.

Research and training

- Support research relevant to the needs of poor livestock keepers to help them optimise the use of local breeds and fodder resources, and increase their economic returns and livelihood security.
- Develop training curricula for veterinary, animal husbandry and extension students which put stronger emphasis on the sustainable use of biodiversity and the significance of local knowledge.

This summary has been compiled by the League for Pastoral Peoples with inputs from GTZ's Agrobiodiversity Project.

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Cover photos courtesy Ellen Geerlings, Wolfgang Bayer and Ilse Köhler-Rollefson.

Please visit www.pastoralpeoples.org for an extended version of "*Securing tomorrow's food: Promoting the sustainable use of farm animal genetic resources*". This includes the sources consulted for this document, case studies, selected papers and a list of resource organisations.

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