

PASTORALISM INFORMATION NOTES

This series of Pastoralism Information Notes was prepared for DFID under the overall supervision of John Morton of the Natural Resources Institute, University of Greenwich. The views expressed are not necessarily those of DFID.



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PASTORALISM INFORMATION NOTE 1: OPPORTUNITIES FOR PASTORALIST DEVELOPMENT

Pastoralists across the world suffer serious problems of poverty, vulnerability to shocks and political marginality. This series of Information Notes outlines the major challenges to development of and for pastoralists. It identifies six areas where action by development donors, governments and NGOs can contribute to pastoralist development.

Policy lessons

Donors and governments need to recognise:

- The importance of pastoralists as a significant group of people with specific needs for development assistance
- The positive contribution of pastoralists to national economies and to environmental conservation
- The real possibilities for contributing to poverty reduction and growth through working with pastoralists.

There are significant possibilities for successful development assistance to pastoralism under the following broad headings:

- Rights, Governance and Voice
- Improving Risk Reduction and Relief-Development Linkages
- Climate Change
- Pastoralist Education
- Entry into World Markets
- Livelihood Diversification.

Pastoralists are people who depend on livestock or the sale of livestock products for most of their income and consumption, whose livestock is mainly grazed on communally-managed or open-access pastures, and where there is at least some propensity for households or individuals to move seasonally with livestock. With such a loosely defined category of people, people who live scattered in remote areas and move within and between countries, estimating global numbers of people is exceptionally difficult, but several international bodies¹ make estimates of up to 200 million people.

Pastoralists are spread across around 40 countries, in the Horn of Africa, the Sahel, the Middle East, South and Central Asia, Mongolia, China and elsewhere. Some of the countries with large pastoralist populations are among the poorest in the world. Within those and other countries, pastoralists own herds that are very large in absolute terms and very significant at the level of national economies.

¹ The World Initiative on Sustainable Pastoralism, IFAD and the donors involved in the Livestock, Environment and Development Initiative.

Poverty, vulnerability and marginality

As this last fact suggests, the question of pastoralist *poverty* is a complex one. Some pastoralist households at any point in time may be very visibly non-poor in terms of assets or income: owning large herds of livestock and living off the direct or indirect proceeds. There are huge differentials within pastoral communities, where rich and poor pastoralists may live side by side, between communities in the same country, and between countries.

But equally important is the issue of *vulnerability*. Pastoralists in most parts of the world can be considered highly vulnerable to herd losses caused by:

- disasters, pre-eminently drought but also flood, snow disasters and epizootics
- policy-related shocks, such as the intermittent closure of Gulf markets to East African livestock exports
- individual risks such as non-epizootic animal disease, predation and poor management decisions.

All around the world, but particularly in Africa, such vulnerability can all too easily reduce large numbers of pastoralists to destitution, and sometimes cause a large-scale exodus from pastoralism (often only to low-grade urban employment or long-term relief dependency). Evidence of this vulnerability is found in a long record, since the 1970s, of catastrophic droughts causing mass mortality of livestock. Pastoralists, especially in the Horn of Africa, continue to be victims of recurrent droughts, and large-scale international food-aid continues to be necessary in response to those droughts (see Pastoralism Information Note [PIN] 2).

Pastoralists are not just poor and vulnerable, they are also *marginalised*. Pastoralists generally live geographically distant from national capitals and regions where economic activity is concentrated. In most African countries pastoralists belong to ethnic minorities and not to the politically, economically and culturally dominant ethnic groups. Many major pastoralist groups spread across national boundaries, which further renders pastoralists marginal and politically vulnerable in the political cultures of nation states. Africa's pastoral zones have been referred to as "languishing in the margins of the state and society... and ignored by the emerging African political class" (Markakis 2004). This marginalisation is discussed in detail in PIN 3. The situation in Asia is more complex and variable, but with the exception of Mongolia, pastoralists are minorities and pastoralism is not well-served by policy.

Understanding pastoralism

During the 1990s, understanding of the environmental basis of pastoralism, especially in Africa, greatly improved (Behnke, Scoones and Kerven 1993). The implications of that analysis for understanding and working with pastoralism as a livelihood were also set out (Scoones 1995). Some of the key messages, which remain valid, are as follows:

- The concepts of “overgrazing” and “carrying capacity” are problematic in tropical rangeland ecosystems, which are subject to high temporal and spatial variability.
- Traditional pastoralism in these areas is a very rational and efficient system of production in need of few technical innovations.
- Following from the above, what pastoralism and pastoralists most need are enabling *policies*.
- In particular, communal management of range resources, and pastoral mobility, are essentially rational responses to an arid and variable environment, responses which should be supported rather than curtailed.
- Pastoralists in most cases depend on trade in livestock for cash with which to buy cereals: but they trade in ways that fit with family consumption of milk and maintenance of herds during drought.

These ideas have become mainstreamed in the programmes of donors and NGOs, though much less so in the policies of national governments. However, they are increasingly challenged by concerns about the sheer persistence of vulnerability and marginality, and threats of climate change and population growth (see PIN 2).

Ways forward

Despite a renewed pessimism on pastoralist development in some quarters, there are several reasons for donors to intensify development aid to pastoralists, and several areas in which progress can be made.

Support for pastoralists is justified not only by humanitarian need, but by:

- The fact that pastoralists form a significant proportion of the world’s poor and vulnerable, with specific needs and constraints on their development; without addressing that population and those constraints some of the Millennium Development Goals and other international pledges will not be met.
- The economic contribution of pastoralists, which is becoming more apparent with new forms of economic valuation (see PIN 3), and which can be increased with the right policies on trade and marketing.
- The fact that poverty and environmental change in pastoral areas are interrelated in complex ways with violent conflict; pastoralism must be understood and pastoral poverty must be addressed if these sorts of conflict are to be managed.

Some of the most important areas for research, investment and action are:

- Rights, Governance and Voice (including land issues and conflict issues)
- Improving Risk Reduction and Relief-Development Linkages
- Climate Change
- Pastoral Education
- Entry into World Markets
- Livelihood Diversification.

These areas are discussed further in Pastoralist Information Notes 3-8.

Key references

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PASTORALISM INFORMATION NOTE 2: CHALLENGES TO PASTORALIST DEVELOPMENT

Despite improved understanding of pastoralism as a livelihood and a form of land-use, pastoral development is still faced by major challenges. These are evidenced by continued vulnerability to drought, dependency on food-aid and exposure to armed conflict. They can be explained by appeals to demography and environmental pressures, but equally or more importantly by the persistence of inappropriate policies, which in turn directs attention to governance and to rights.

Pastoralists have long faced various challenges of various sorts, from the natural environment and from governments. Some hoped that the emergence of new research and the adoption of new approaches by NGOs and donors, from the early 1990s on, would overcome these challenges. But pastoralism, particularly in East Africa and in the Sahel, seems still to face many of the old challenges, with new challenges added, and new questions about its sustainability.

Evidence of vulnerability: continued drought, food-aid dependency and conflict

The most striking evidence that pastoral development has not succeeded is the recurrent collapse of pastoralist livelihoods brought about by drought and other climate disasters, particularly but not solely in East Africa. Droughts appear to be becoming more frequent and more severe, but pastoralists also appear to be becoming more vulnerable to shortfalls in rain. This leads not only to the need for food-aid during droughts but also to the long-term destitution of some pastoralists who seemingly become dependent long-term on food aid or on irregular opportunities for casual labour.

Alongside drought is the threat of conflict. Conflict in pastoral areas has been growing in intensity since the late 1970s. In East Africa pastoralists have been caught up in complex conflicts that incorporate aspects of civil war, large-scale criminality, and patterns of traditional raiding, the whole fuelled by the greater availability of firearms. In Darfur, Sudan and neighbouring regions of Chad, pastoralists have featured heavily among the belligerents in recent conflicts. In the Sahel there have been armed insurgencies of pastoralists against national governments. Elsewhere pastoralists have been caught up in wider conflicts. Drought and conflict interconnect: drought and collapsing livelihoods fuel conflict, but conflict puts valuable rangelands, livestock, markets and other resources beyond the reach of pastoralists.

Pastoral vulnerability is not only evidenced by dramatic scenes of destitution. Elsewhere in the world pastoralists are involved in slow processes of settlement and incorporation into agricultural economies, not on their own terms and often with negative results on their livelihoods and dignity.

Interpreting vulnerability: thinking about population

Interpreting this continued vulnerability has led some researchers to a renewed questioning of the sustainability of pastoralism. In particular there has been a renewed interest in human population growth in pastoral areas. The claim has been made² that there is in principle a level of livestock holding per person that can be regarded as a subsistence threshold for pastoralists; and that the rangelands that remain, following various forms of encroachment on them, cannot support the livestock population for the growing human population at this subsistence threshold. As a result, in many areas there are too few animals to support pastoralists above the subsistence threshold, and in other areas livestock are distributed inequitably, in both cases causing widespread and structural poverty, and posing serious questions about the future of pastoralism. Such claims have generated forceful counterarguments, but also served to highlight the views, shared by “optimists” and “pessimists” alike, that what is needed is:

- Investing in livelihood diversification, both directly and in the longer term through pastoral education (see PIN 6), and
- Improving the policy environment for pastoralism.

Interpreting vulnerability: the persistence of unfavourable policy

The importance of supportive policy - on land tenure, on markets, on mobility, on conflict - has long been recognised by researchers, donors and NGOs. But developing country governments have appeared remarkably resistant to adopting such policies. Pastoral rangelands continue to be encroached upon, by commercial agriculture particularly in riverine areas, by parks and protected areas, and increasingly by mineral exploration. While there are exceptions, the importance of the collective management and flexibility that are features of traditional tenure fails to be recognised in law. Some governments persist with the rhetoric of settling pastoralists. There is a failure to invest in the public infrastructure needed to encourage marketing of livestock, and, at an international level, a failure to evolve international trade regulations to facilitate trade from pastoral areas. Some governments have failed to manage armed conflicts within their borders, have come dangerously close to making pastoralists scapegoats in the “war on terror”, or worse have incited pastoralists to become involved in conflicts within and across borders.

In debates on the sustainability of pastoralism, these failures of policy have been highlighted at least as much as demographic, environmental or climatic factors. The question must now be asked: why do governments persist in poor policy? The answers must be found in the way pastoralists are represented (or not) in the processes by which policies are made and implemented, in other words in governance and in rights (see PIN 3).

² Stephen Sandford (2006), see also the responses

A new vulnerability: climate change

The droughts and other climate disasters of recent years are increasingly seen as manifestations of global climate change, and increased awareness of future climate change now is now becoming a key issue in pastoralist development (see PIN 5). This awareness is double-edged: it can focus too much attention on the potential catastrophes facing pastoral areas, and not enough on the fact that much of what will stop pastoralists adapting to climate change are the same problems of policy and governance that have blocked pastoral development up till now.

Key references

Sandford, S. (2006) *“Too many people, too few livestock: pastoralism in crisis?”*
Available with responses by various authors at http://www.future-agricultures.org/EN/e-debates/Pastoralism/pastoralism_debate.html

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PASTORALISM INFORMATION NOTE 3: RIGHTS, GOVERNANCE AND VOICE

The persistence of poverty, environmental degradation and conflict in many pastoral areas is in large measure a direct result of inappropriate policy and development interventions. Enduring perceptions of pastoralism as an economically inefficient and environmentally destructive land use system continue to drive rangeland and livestock policy, especially in much of Africa. Yet, none of these policies are evidence-based. They are not informed by past failure or current scientific knowledge of the dynamics of dry land environments and livelihood systems, nor are they designed with the participation of pastoral communities. Governments' poor understanding of pastoralism combined with the inability of pastoral groups to influence the decisions that affect their lives and to hold government to account is perpetuating a vicious circle of pastoral poverty and conflict, thereby reinforcing the very preconceptions that pastoralism has no future and has to be modernised or replaced. These are failures of governance. Building the capacities of both pastoral communities and their advocates to challenge these perceptions and participate more effectively in decision-making to shape policy and realise their rights is thus critical for future development and peace in the drylands.

Policy lessons

- If they are to improve their livelihoods, pastoral people have to master the policy process, putting themselves at the centre of local and national debates designed to address their priorities and needs.
- Secure land tenure is a prerequisite to sound and profitable rangeland management.
- Pastoral policies and laws must accommodate environmental variability by promoting livestock mobility, and negotiated and reciprocal access rights to resources that sustain high livestock productivity.
- Governments need to have a sound understanding of the significant economic returns from land under pastoralism compared with other land use systems.

While there are similarities in the ways governments deal with pastoral populations across the world, there are also profound differences, influenced by history, levels of development, geo-politics and whether pastoralists represent significant proportions of the population. The rest of this Note will focus on Africa, where government perceptions of pastoralism, and limited pastoralist voice, are particularly constraining.

Understanding and valuing pastoralism

Overcoming ingrained prejudice and misunderstanding of pastoralism as a land use system is a fundamental prerequisite for greater participation by pastoralists in national and local decision-making processes. Until governments better understand the rationale and recognise the significant

contribution of pastoralism, they will see no value in engaging with pastoralists.

Two dominant narratives continue to shape policy even though there is little or no evidence to support their premises with respect to pastoralism. These need to be challenged. First, the “tragedy of the commons” thesis contends that environmental degradation is inevitable where lands are held in common while livestock are privately owned. Despite being discredited, it still influences governments’ attitudes to customary pastoral land tenure systems, prompting proposals to control stocking levels and privatise pastoral land. Second is the widely held belief that mobile livestock keeping is backward, wilful and, crucially, less productive than alternative land uses such as commercial ranching or agriculture. Such views fly in the face of a growing body of evidence showing the very significant economic contribution pastoralism makes to national and regional economies and how it is considerably more productive per hectare than settled commercial ranching in similar environmental conditions. Making the economic and environmental arguments for pastoralism is of increasing urgency for pastoralists as governments throughout Africa have embarked on an agenda of institutional reform centred on the modernisation of the agricultural sector as the pathway out of poverty. Within this, the replacement of pastoralism either by a livestock sector based on commercial ranching or alternative land use systems such as commercial farming is promoted as a key objective.

Box 1: Persistent perceptions

One of the weaknesses of communal land tenure is that it does not confer adequate incentives and sanctions for efficient utilisation and management of common property resources, which leads to what is commonly referred to as the “tragedy of the commons”. (Republic of Kenya Draft Policy on Arid Lands, 2005, p.7)

We are producing little milk, export very little beef, and our livestock keepers roam throughout the country with their animals in search for grazing grounds. We have to do away with these archaic ways of livestock farming. (Hon Jakaya M. Kikwete, President of Tanzania, Press Conference on 4th January 2006).

Reconciling power imbalances

Although information is a central element of policy-making, it is not necessarily enough to induce positive change in favour of pastoralism and pastoral rights. Policy design is essentially a state-driven political process aimed at reconciling the divergent needs of multiple stakeholders. As with all processes involving conflicting and diverging interests, it is those that are backed by political and/or economic power that prevail.

Whereas twenty years ago, well-meaning northern NGOs and research bodies largely drove pastoral advocacy, today there is an increasingly active and vocal national pastoral civil society movement in East and West Africa. Through their efforts, pastoralism is rising up the national agenda - e.g. Pastoralist Day in Ethiopia, Pastoralist Week in Kenya, the establishment of

Pastoral Parliamentary Committees in East Africa, influencing the design of pastoral legislation in the Sahel, and formal recognition of pastoralism in certain national PRSPs. These achievements, while modest and largely involving an urban-based pastoral elite, are to be celebrated for they represent an important milestone in the struggle for pastoral participation in the design of development policy. But they are insufficient.

Pastoralists need to build on these foundations through greater involvement of local pastoral communities and better organisation at local, national and regional levels in order to create a critical mass with sufficient political clout to effect policy change. Pastoral groups need to become more adept at articulating the rationale and economic benefits of their livelihood and land use systems. However, it would be naïve to suggest that pastoralists are merely victims of external power relations. Divergent interests based on a mix of clan-based affiliations and shifting multi-party politics, combined with increasing differentiation within and between communities along lines of wealth and education all serve to make finding a “common pastoral voice” problematic. Yet, if they are to create a broad political constituency that government will have no alternative but with which to engage, they will need to address such internal divisions while forging alliances with other livelihood groups. Critical to building critical mass is the need to strengthen links between customary institutions and the very many organisations that advocate in support of pastoralism, but which are not necessarily rooted in or accountable to local pastoral people. Building the capacity of ordinary pastoral people to hold their leaders, customary or otherwise, to account is critical.

Securing land rights

Securing pastoral land rights is a crucial component of ensuring the good governance of pastoral lands and full participation of pastoral citizens in the development of their countries. After decades of neglect, government commitment in Africa to protecting pastoral land rights has improved considerably in the past 15 years.

In West Africa, this has consisted of passing pastoral laws with specific provisions for providing greater tenure security over the control and use of the commons and for securing livestock mobility both within and cross-border. Varying attention is also given to providing for compensation in the event of losing lands to public interest needs and to recognising customary tenure arrangements and institutions and traditional conflict management processes.

In East Africa, progress has not been as significant although there are some gains on which to build. The Constitution of Uganda is unique in East Africa in being the only one that vests the land in the citizens, thereby providing a strong foundation for communities to secure their land rights. It also recognises customary land tenure and devolves the administration of land to the district government. The Constitution of Kenya recognises customary land rights but not customary institutions, vesting customary land, including the land of pastoralists, in county councils to hold in trust for the benefit of the

communities. In practice, county councils have tended to abuse this trust and have not protected the customary land rights of communities including pastoralists. Tanzania's Village Land Act while providing for the titling of village land and recognition of customary rights, also vests huge powers in both the President and the Commissioner for Lands, including the appropriation of titled village land for investments of national interest. Such provisions have been used to dispossess pastoralists of their land for commercial farming, mining or tourism.

There are promising developments at regional level too with recognition and support for livestock mobility by ECOWAS (e.g. the Cross-border Transhumance Certificate) and moves by COMESA to adopt similar provisions, while the African Union is developing a continent-wide pastoral policy framework, which is likely to support a more positive attitude towards pastoralism.

These provisions go a considerable way to providing an overarching framework for securing pastoral land. But policy and legislation alone will not protect pastoral land from alienation or encroachment. Pastoralists need to be legally "literate" with the knowledge and confidence to exercise their rights as stipulated by law. Programmes building their capacity to exercise their rights can include such activities as the dissemination of key legal provisions through local language broadcasts on rural radios, workshops, community meetings and the training of para-legals from within the community. Laws also need to be backed by procedural law specifying how provisions within substantive legislation will be addressed including how to hold government to account, and how to apply penalties and sanctions for infringements of provisions detailed in the law.

Managing conflict

A governance agenda requires attention to conflict prevention. Exclusion from normal political processes, and erosion of access to natural resources, are key contributors to some of the conflicts in which pastoralists are involved, though most conflicts are very complex in their causes (see Box 2). Donors should assist the strengthening of conflict management processes, and the dissemination of good practice on conflict management, while also funding work on the underlying causes of conflict. In addition, donors and international bodies involved in understanding and managing conflict must be aware of the specific issues related to pastoralists' participation in conflicts, and be able to apply this awareness systematically, for example in conflict assessments.

Box 2: Pastoralists and conflict in Darfur

Camel pastoralists, and the Northern Rizaygat tribes in particular, have been key actors in the tragic conflict in Darfur since 2003, playing a role in the notorious *Janjaweed* militias. Research by Tufts University has used a livelihoods lens to examine the “complex interactions between people, the environment, and institutional and policy processes” that led to many Rizaygat joining the Government’s counterinsurgency against the Darfuri rebels. Some of these elements are:

- Neglect by successive governments of Darfur within Sudan, and pastoralists within Darfur
- Impacts of recurrent droughts on livelihoods and on institutions
- Changing patterns of land use, expansion and commercialisation of agriculture
- The weakening in recent decades of long-standing systems of land tenure and natural resource governance, that were themselves inequitable to pastoralists, particularly the closure of traditional migration corridors, thereby denying pastoralists access to seasonal pastures crucial for breeding and livestock health.

These elements combined with local inter-ethnic conflicts and international tensions with Chad and Libya to deepen Rizaygat vulnerability, leaving them “in a state of deepening frustration, hopelessness and desperation, fearing for their survival”.

The researchers do not excuse or justify individual acts of violence by Rizaygat, or deny the perpetrators’ responsibility. They point, however, to a general lesson: unable to practice traditional livelihoods effectively or access alternatives, people turn to maladaptive coping strategies, which often depend on violence and generate further conflict or alternatively destroy the environment. In Darfur recent conflict and the ‘war economy’ has destroyed livelihoods and restricted mobility. To break out of this vicious livelihoods-conflict cycle and to promote peace in Darfur, pastoralist issues must be addressed within peace processes and humanitarian responses, and in relation to climate adaptation and natural resource management.

Source: Young et al. 2009: comments made by Helen Young at DFID-AFD Drylands Workshop 3rd June 2009.

Ways forward

Challenging perceptions and making the economic argument

Empowering pastoralists to influence decisions that affect their lives will require a strong political constituency, concerted support and co-ordination between governments in Africa. This is a major challenge. Despite the existence of a broadly enabling policy environment in some countries, and a regional commitment to support pastoralism, the overriding perception of pastoralism among African decision-makers is negative. The growth in numbers of national legislature members representing pastoral areas is encouraging, as is the formation of committees of members of parliament devoted to pastoral reform. National legislatures are probably one area where campaigners can make some progress in changing attitudes and policies towards pastoralism.

Changing policy-makers' perceptions of pastoralism will involve improving their understanding of its dynamics and economic benefits - particularly the comparative advantages of mobile livestock-rearing over alternative land uses in a context of increasing climate variability expected from global climate change. There is an urgent need to develop a dynamic economic model that can track and assess pastoralism's full and varied contribution to society and national economies, as a pre-requisite to promoting any programme seeking to promote pastoralism.

Strengthening civil society

Strengthening pastoral and other civil society organisations is essential. Pastoral communities need better to understand their rights and responsibilities, and how to assert their rights within existing policy and legislation. They also need to understand the issues at stake and learn how to engage in policy debate and decision-making fora that have a bearing on their lives. At the moment, these are still dominated by government officials and economic elites, due to substantial gaps in education, information, income and wealth. Addressing this imbalance (through training and other forms of capacity building), and finding ways of giving a real voice to people whose views may not be well-formulated and who are usually not listened to, are thus critical.

This too will take time and require long-term commitment and creativity, particularly since pastoralists are not a homogenous group. As a consequence, there is not necessarily wide consensus on what constitutes "the interests of pastoralists", let alone what needs to be done to protect those interests. Adopting a process-driven approach to develop internal capacity among all categories of pastoral people (e.g. men and women; rich and poor) is thus essential to building broad consensus.

Responding to pastoralists' immediate needs

Poverty and conflict are endemic in many pastoral areas and this requires immediate attention if local people are to subscribe to more strategic, longer-term and intangible issues such as "empowerment". It is also important to recognise that pastoralism is a dynamic system evolving in a broader social, economic and political context that itself is constantly changing. This demands that the definition of the "pastoral problem" and its solutions must also constantly be adapted and updated through participatory action-research activities.

Building the capacity for self-determination among pastoral groups in Africa is a long-term process that will span at least one or two generations (15 to 20 years if not more). Yet, it is the only acceptable and long-term solution for until pastoral citizens have the skills and confidence to define and defend their own vision for their own development, they will remain vulnerable to other people's interpretation of what is best for them.

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PASTORALISM INFORMATION NOTE 4: IMPROVING RISK REDUCTION AND RELIEF-DEVELOPMENT LINKAGES

Pastoralists, especially in the Horn of Africa, continue to be victims of recurrent droughts. Large-scale international food-aid continues to be necessary in response to those droughts. There are a number of practical approaches governments, donors and NGOs can adopt to reduce the impacts of drought, and to smooth the transition back from relief to development.

Policy lessons

Donors should continue to support:

- Safety net programmes, tailored to pastoralist livelihoods, as an alternative to emergency relief
- Improved co-ordination between relief and development programmes
- Increased awareness of pastoral development issues among humanitarian practitioners
- The improvement and better management of early warning information appropriate to drought and famine in pastoral areas
- The piloting of disaster insurance for pastoralists
- Development and dissemination of emergency interventions specific to pastoralism.

Introduction

Pastoralists, especially in the Horn of Africa, continue to be victims of recurrent droughts and other disasters, and large-scale international food-aid continues to be necessary in response to those disasters. For example, the Horn of Africa drought of 2006 affected 11 million people. Of these, pastoralists were the largest and worst affected group, with high malnutrition levels (ODI 2006). This continued vulnerability to drought remains the case despite the much greater understanding of pastoral livelihoods and the body of experience in pastoral development that have developed in recent years.

Drought has both direct and indirect impacts. Direct impacts include:

- losses of livestock through mortality and forced sale; pastoralists in Southern Ethiopia lost an estimated 50-75% of all livestock and a higher proportion of cattle, in the drought of 2006
- decreased purchasing power to buy grain and other necessities of life
- famine, human suffering and long-term destitution with dependence on food aid.

Indirect impacts include:

- reduced willingness to invest in improvements in livestock production, such as animal health services
- uneven and unpredictable flows of animals to market, preventing development of exports

- increased conflict, which may in turn exacerbate the impacts of drought by denying pastoralists access to fall-back grazing areas
- overgrazing and desertification, at least on local scales.

The recurrence of drought has raised fundamental debates on whether pastoralism is a viable and sustainable livelihood. Some of these debates see current droughts as manifestations of longer-term global climate change, which can only get worse in future (see PIN 5). But the question is not only about the frequency and severity of drought, it is about the social, economic and policy trends that make pastoralists *more vulnerable* to drought. One of these is growing human population in pastoral areas (see PIN 2). Others are the encroachment on grazing lands and the failure to recognise collective forms of natural resource management, armed conflict, underdevelopment of markets, and behind them all political marginalisation (see PIN 3).

Whatever relative weight is given to climate change, demography and poor policy in the problem of drought and its continuing impacts, improved risk reduction and relief-development linkages must be part of the solution.

Experiences of drought management

Since the late 1980s donors, national governments and NGOs have sought to develop and mainstream approaches to drought and other disasters in pastoral systems that go beyond food relief:

- Early warning systems that can inform governments and donors of risks faced by populations. Typically these involve regular collection of defined and easily collectable indicators, of both grazing availability and livelihoods, to assign at-risk populations to stages of “alert”, “alarm” and “emergency”.
- Linked to these, systems of decentralised drought contingency planning, where indicators of alarm and emergency can trigger appropriate and timely local responses.
- Interventions for drought and drought onset that specifically support livestock-based livelihoods. These include emergency feed distribution and emergency animal health measures, and most notably forms of emergency purchase of livestock, sometimes called “destocking”.
- A realisation that the task of reducing risk *ex ante*, or helping pastoralists become more resilient to drought involves many of the components of general good practice in pastoral development - developing livestock markets, defending communal land tenure and ensuring good governance and respect for pastoralist rights.

Within these approaches, some important recent developments are:

- The adoption of district-level models of early warning and disaster contingency planning in large World Bank-funded projects in pastoral areas of Kenya, Ethiopia and Mongolia
- Successful implementation of emergency offtake, using private sector livestock exporters, of around 22,000 animals in the 2005-2006 drought in Southern Ethiopia

- Planning of Safety-Net Programmes for pastoral areas in Ethiopia and Kenya, seeking to guarantee incomes for the vulnerable in ways that do not conflict with pastoral livelihoods.

In terms of research, dissemination of good practice and policy formulation, important developments have been:

- The adoption by the multi-donor ALive partnership of a Policy Note on Community-Based Drought Management.
- The development of Livestock Emergency Guidelines Standards by a consortium of donors. These cover good practice in dealing with crises among livestock-dependent communities, especially providing immediate assistance, protecting livestock-related assets, and assisting the re-building of key assets.
- The accumulation and quantitative analysis of a large mass of data on issues such as drought losses and traditional inter-household transfer by the USAID-funded PARIMA project.
- An increased interest in livestock insurance: index-based insurance that pays out against defined area-wide events, either mortality rates or rainfall deficits, can avoid some of the pitfalls associated with traditional insurance of individual animals. This approach has been piloted in Mongolia, with discussion of extending the model to Kenya.

Institutionally, other aspects of this work have been:

- The willingness to fund development or development-like activities under disaster relief budgets; large projects have been implemented in the Horn of Africa by both ECHO and USAID on this basis.
- A greater commitment by donors to *building capacity* in livestock-specific emergency response through training and production of guidance materials.

Ways forward

Pastoralists will continue to fall victim to disasters, for a complex of reasons that will involve pre-existing vulnerability, poor policy and climate change. To respond to this, there is a need for work on a number of fronts:

- Large-scale, institutionalised safety net programmes, tailored to pastoralist livelihoods, as an alternative to emergency relief.
- Improved co-ordination within donors' own operations between humanitarian and development programmes. This should include; improved co-ordination during transitions from humanitarian operations to rehabilitation and country programming; mechanisms for creating greater awareness among humanitarian staff of the specific requirements and difficulties of working with pastoralists; and mainstreaming of risk-reduction and "drought-proofing" approaches in development programmes.
- Support to the improvement and better management of early warning information.
- Support to the piloting of disaster insurance for pastoralists.

- Development and dissemination of emergency interventions specific to pastoralism, as in the Livestock Emergency Guidelines Standards (LEGS), with accompanying capacity-building.

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PASTORALISM INFORMATION NOTE 5: PASTORALISM AND CLIMATE CHANGE

Climate change will have serious impacts in pastoral areas, including increased severity of droughts. Yet discussion of the impacts has often been simplistic and polarised between those who predict catastrophe and those who point to pastoralists' ability to adapt, if the policy context allows. At the same time, there is controversy over the contribution of pastoralism to greenhouse gas emissions. This Note identifies ways forward through research and development.

Policy lessons

Donors need to invest in both research and development to help pastoralists face the problems of climate change:

- Locally-specific climate projections and research on the full range of climate change impacts
- Pilot dissemination of climate information, at various scales and various timescales, to determine what can be useful to pastoralists and those who support them
- Research on the contribution of pastoralism to greenhouse gas emissions, and the positive opportunities for carbon sequestration on rangelands
- Action to increase pastoralists' resilience to climate change: in large measure this will coincide with general good practice in pastoral development.

Climate change has become a major feature of development discussions about pastoralism. It has become so in two ways:

- It is projected that climate change in much of the tropics will be manifested in increased frequency and severity of drought, and that pastoralists will more and more become victims of this, calling into question the fundamental sustainability of pastoralism as a livelihood.
- Some researchers assert that pastoralism itself, like other forms of livestock production, is an emitter of greenhouse gases, particularly methane, and in a way disproportionate to its economic value.

Victims or adapters?

Projecting future climates for regions where pastoralists live is fraught with uncertainty. Regional projections in the literature (for example the Fourth Assessment Report of the IPCC) are usually for long timescales (e.g. 2080-2099) and for large regions that include both pastoral and sedentary farming areas. In one major case, that of the Sahel, regional projections are still divided between those for a wetter Sahel and those for a dryer Sahel. More localised projections are increasingly becoming available: the pastoral areas of northern Kenya are likely to experience decreased rainfall in the medium-term (Osbaahr and Viner 2006), but longer or more intense rainy seasons in the longer term (Nassef *et al.* 2009) and arid and semi-arid grazing systems in East Africa are seen as highly vulnerable to a combination of climate change and socio-economic factors (Jones and Thornton 2006). More generally,

there is an assumption that pastoral areas face an increased risk of drought events, due to increased variability of rainfall but also higher temperatures, even if mean rainfall is predicted to rise.

These still evolving projections of future climate in pastoral areas have led to a polarised discussion of impacts on pastoralists. On the one hand there is a fear, which has been publicised in the mass media, that pastoralist livelihoods, especially in East Africa, are fast becoming unsustainable, more dramatically and more rapidly than other forms of rural livelihood: pastoralists are in danger of becoming “the first climate refugees”.

Such projections and judgements may be used, in good faith or otherwise, by governments and by donors, to justify withdrawal of support to pastoralism, the forced settlement of pastoralists, and turning over of rangelands to other uses. Climate change is a justification for increased attention to pastoral development, but it is a double-edged one.

On the other hand, there is a view, presented by NGOs and others, (Nori and Davies 2007, Nassef *et al.* 2009) that pastoralists are by their nature adapters, and if left to themselves will adapt, quite possibly more successfully than dryland crop-farmers. Rather than fear for them under climate change, it is preferable to create for them the space, through more enabling *policies*, to adapt.

Better and more localised projections

Both the seriousness of the climate threat to pastoralists, and their capacity to adapt if allowed to do so, need to be recognised. What is needed now is to increase the availability of local climate projections for specific pastoral areas (taking proper account of their levels of uncertainty), as well as:

- thinking about a wider range of climate impacts on pastoralists, and
- working on ways to use this knowledge in building adaptive capacity.

Climate impacts will be of various sorts and at various scales, through effects on graze and browse availability, patterns of animal diseases, and possibly heat stress on the animals themselves (though this is less likely with indigenous breeds). The analysis must include both the impacts of changing mean temperature and rainfall, and the impacts of extreme events - not only droughts, but also the risk of floods and cold-waves must be factored in. As well as these direct impacts, there may also be indirect impacts of climate change, for example in higher prices of purchased cereals, or reduced availability of crop residues from neighbouring farmers. There may also be impacts on pastoralists of others' attempts to adapt to or mitigate climate change: fears have been expressed of encroachment on rangelands for cultivation of biofuels, especially jatropha, as a mitigation measure. All these impacts will be felt in the context of other trends and shifts, demographic, economic and political, many of them disadvantageous to pastoralists: rising populations, encroachment on rangelands, political marginalisation, continued conflict. These trends drastically limit pastoralists' ability to adapt to climate change.

What will be important will be to work in specific pastoral areas, using local climate projections to map the various risks and concomitant ways to reduce vulnerability. Pastoralists, and the various agencies concerned with pastoral development, need to have climate risks presented clearly to them, and be involved in discussing the implications and the responses.

Carbon culprits?

There is increasing concern, not only in development and environment circles, but also among the general public, on the contribution of the world livestock sector to global climate change through greenhouse gas (GHG) emissions. How this debate applies to pastoralism needs to be refined through careful research.

The FAO report “Livestock’s Long Shadow” argues that 18% of world anthropogenic greenhouse gas emissions are attributable to livestock production. Much of this is accounted for by livestock-related deforestation, and by industrial systems for producing, processing and transporting livestock products. However, methane production from the digestion process of ruminant livestock is significant, and grazing systems account for a third of this globally. The report notes that this cost in terms of GHG emissions is suffered for a relatively small benefit in terms of useful products, because these systems have low productivity per area and per animal, and the poor quality and fibrous diets of livestock in many traditional grazing systems lead to higher emissions per animal. The report has been seen as presenting an implicit argument against continued support to traditional pastoralism.

Various questions can be raised about these arguments:

- Arguments about high GHG emissions per unit of economic output may underestimate the intangible benefits of pastoralism
- Projections of high GHG emissions per head of livestock may not take into account the way in which indigenous breeds of livestock are adapted to fibrous diets
- The analysis also has no counter-factual of what would happen if livestock were not present on tropical semi-arid rangelands - vegetation would be eaten by ruminant wildlife or by termites, each themselves producing methane.

Conversely, there is interest in instituting systems of *Payment for Environmental Services* (PES) to pastoralists for the actual and potentially enhanced role of rangeland soils in carbon sequestration (alongside other environmental services such as flood protection). PES in pastoral or rangeland contexts raises immediate questions of who the beneficiaries should be, and how benefits should be distributed, when land is owned and managed collectively, often with overlapping and fuzzy claims. Payments specifically for carbon sequestration raise further technical questions: of the low carbon sequestration capacity of tropical semi-arid soils, and the subsequent need to operate at very large scales to realise significant climate mitigation benefits; of the need for site-specific soil carbon management strategies; and of the difficulties in demonstrating that pastoralists are bringing about the *additional* sequestration required for carbon trading. But PES for

pastoralists and on rangelands appears to be an important topic for future research.

Ways forward

Climate change will undoubtedly have significant impacts on pastoralists, but they need to be discussed in a nuanced way, without assuming pastoralists' absolute vulnerability or intrinsic ability to adapt. There are important knowledge gaps on what forms these will take and what can be done to help pastoralists adapt to them, and how pastoralists fit into discussions of climate change mitigation.

Pastoral development needs much more nuanced *research into the impacts of climate change*, including more specific discussion of potential biophysical impacts such as bush encroachment under CO₂ fertilisation, and new patterns of animal disease. This research must recognise the complexity of real-world pastoral production systems, and the consequent limits of modelling approaches.

There is a need for research and programming on the *dissemination of climate information* and information on climate impacts - to pastoralists themselves and to a range of stakeholders involved in policy-making, governance and service provision, over various timescales from seasonal to long-term.

There is also a need for more in-depth research on the *contribution of pastoralism* (and extensive livestock production in general) *to greenhouse gas emissions*, and the feasibility (bio-physical, economic and institutional) of mitigation measures through carbon-sequestration.

Action can be taken now to increase pastoralists' resilience to climate change. Building resilience goes hand-in-hand with good practice in pastoralist development, as discussed in other Notes of this series; helping pastoralists manage drought and other extreme events, fostering livelihood diversification and education, and giving pastoralists a voice through empowerment and good governance.

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PASTORALISM INFORMATION NOTE 6: PASTORAL EDUCATION

Education is central to the reduction of poverty and to full participation in political life. However pastoralists are falling behind in education and the acquisition of skills needed in the modern world, with girls especially vulnerable. There are specific challenges to pastoralists' participation in education, mainly associated with mobility and remoteness. Countries with significant pastoralist populations which do not provide adequate education programmes to them will miss their Millennium Development Goals, will lag behind economically, and will risk political unrest.

Policy lessons

- New strategies are needed for primary and secondary education and for all aspects of learning which equip pastoralists to deal better with modern life, including poverty eradication.
- There is widespread and solid domestic and international political support for getting education to pastoralists.
- Ways forward need to be found both for delivery systems and for curriculum content and school culture. For delivery a mixture of boarding schools, mobile schools and radio schooling, adapted to particular local circumstances, is probably the best solution.
- In boarding schools school culture is the defining factor. Wherever this culture is anti-pastoralist, action must be taken.

If low pastoralist enrolment and high drop-out rates continue, countries with significant pastoralist populations will not reach their Millennium Development Goals, national economic development will be slowed, rural economic diversification will be impeded, and political unrest will grow.

The statistics are alarming. In Kenya, which has made more progress on this than most African countries, nationally 80 percent of primary school age children are in school. For pastoralists the figure is less than 60 percent. In places access is even more limited: in the predominately pastoral North Eastern Province, only 20 percent of children go to school.

Among those few nomadic children who do go to school in NEP, there is a significant gender disparity: nationally 0.97 girls go to school for every boy, in NEP it is only 0.58 girls for each boy. In pastoral Twareg communities in Mali girls' school attendance is minute. This gender imbalance is repeated throughout the dry areas of Africa (Sanou 2003).

Specific problems in getting schooling to pastoralists

While pastoralists represent only one category of out-of-school children, in many countries they are a very significant category, and one with very specific

needs, and specific challenges to their participation in education. These challenges are summarised in Box 1.

Box 1. Challenges in education provision to nomadic peoples

At delivery

Funding: high cost of building and maintaining remote rural schools.

Staffing: difficult to secure staff for remote rural schools.

Training: difficult to secure quality of teaching in pastoral schools (good teachers often leave at the first chance).

Equipment: difficult to provide adequate teaching and learning materials to remote locations.

Legacy: need to overcome a legacy of antagonism in school to nomadic livelihoods, where formal education was instrumental in policies of cultural assimilation and forced sedentarisation.

At reception

Mobility: key to the production strategy of pastoral households, mobility poses a serious challenge to a system heavily reliant on schooling.

Scattered population: an advantage for production but a problem for school-based education.

Unpredictable disruptions of service: in addition to routine production-related mobility, insecurity and environmental dangers such as droughts significantly disrupt the routine of school-based education.

Child labour: children's roles in the household economy compete with school calendars and timetables.

Resistance to schooling for girls: parents are particularly reluctant to send girls away from the household where they can be protected and controlled.

Illiterate parents: lack of literate parents means that children cannot receive help at home for formal education.

Cost: even small costs are hard to meet as pastoral households have usually little liquidity. In addition, the economic benefits of schooling are not always evident which discourages parents from paying.

Source: adapted from Krätli 2009; based on Krätli 2000; Carr-Hill and Peart 2005; Dyer 2006.

Pastoral education in context

Education is an important part of the solution to poverty since it provides the skills which allow pastoralists to diversify and grow their economies. There are strong positive links between education and economic growth, between education and better child health and lower mortality, and between education and democracy (UNESCO 2009). The absence of education makes higher productivity in pastoralism and economic diversification out of pastoralism difficult, and prevents pastoralists from working their way out of poverty. The lack of education magnifies gender disparities in the wider society. Growing marginalisation of pastoralists has already translated into political unrest, a dangerous development in a world dominated by poverty and insecurity.

The problem is not only the lack of formal primary and secondary schooling. Pastoralists have become acutely aware of their own lack of understanding of how the modern state works and, as a result, the difficulty they have in accessing the networks of development agencies, projects and the state administration which control the flows of public resources. Because pastoralists are absent from the debate, many pastoralist development policies are misguided. Today many want to acquire the skills and qualifications that would (in their view) enable them to bridge this gap. Increasing interest in education is rooted in this concern.

Strategies are needed not just for primary education, but for all aspects of education, learning and skills acquisition which equip pastoralists to deal better with economic diversification, with increasing productivity, and with the state. Such a strategy should address the needs not only of children, but also of adults, and should differentiate by gender.

However, such strategies must also recognise that 'there are trade-offs between the educational experience available in school and that available as part of a child's family life...school-based education comes to a child only at a price' (Krätli 2009). The price includes a lack of learning about livestock management, absence from the family, acquiring urban habits and other attitudes which threaten a pastoral life.

Ways forward

Several countries have successfully organised schooling, the formal process of providing or receiving a standard education, for scattered, mobile people, in some cases for decades. There are three main ways to overcome the inherent difficulties in provision of schooling for pastoralist peoples; creating curricula and a school culture which facilitate real education is harder.

Delivering schooling

The commonest solution has been *boarding schools*. Mongolia has achieved full primary school enrolment in a nomadic pastoral economy by providing excellent boarding schools. Perhaps this was possible because the prevailing culture is (or until recently was) positive towards nomadic pastoralism. In Africa historically school culture has been negative towards pastoralists, and boarding schools have not been successful for nomads. This is improving.

Some states - notably Iran - have experimented successfully with *mobile schools*. Where the nomad population moves en masse between winter and summer quarters, with little movement within the seasonal areas, mobile schools can work well. The school tent and teacher move with the migration and set up shop when people stop moving. Iran has provided mobile 'tent schools' for its nomadic pastoralists for over half a century. An advantage of mobile schools is that girls can easily attend them, remaining under the control of their parents.

Some countries - notably Australia - have experimented successfully with *distance education* using radio. Children (in some cases adults also) attend an initial class where they are taught how to use the educational materials provided, and then return home. They listen to school radio broadcasts and work in their notebooks. Radio has also been used for adult education successfully in Mongolia. Distance education using radio is probably the most promising current delivery method. The main requirements for an Open and Distance Learning system, based on radio, are set out by Krätli (2009).

It is likely that successful provision of education to remote and scattered populations will not depend on a single method - boarding, mobile or remote - but will combine more than one method. The essential feature is to maintain flexibility.

Making curricula and school culture pastoralist-friendly

In parallel to questions of delivery of schooling, important decisions have to be taken with regard to content and to the way school culture relates to pastoral culture. The questions which arise include: the language of instruction (local or national language where these are different), and the extent to which the curriculum is based on a national curriculum or on the contrary is constructed around the pastoral livelihood system. In practice a mix is likely to be chosen, since pastoralists are likely to send their children to school more to learn how to handle the complexity of the modern world, and how to relate to and negotiate with officials.

In the case of boarding schools, the school culture is critical. School culture in Africa has been strongly anti-pastoralist. Unsurprisingly, children hated school and their parents supported them. In Mongolia, on the other hand, where all children, as well as the teachers, come from a nomadic background, school culture is pastoralist-friendly and children go to school happily.

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PASTORALISM INFORMATION NOTE 7: FACILITATING ACCESS TO WORLD MARKETS

Pastoralist livelihoods in the contemporary world depend on the sale of livestock or livestock products and are thus intricately bound up with markets, local and increasingly global. The world is seeing a steady rise in demand for livestock products, but pastoralists risk being left behind in this “livestock revolution”. Reasons include a poor fit between pastoralists’ objectives in selling their livestock and the demands of the market, and long and risky marketing chains. The regulatory system for international livestock trade requires proof of the disease-free status of geographical areas, proof that is difficult for exporters and governments to provide, especially for remote areas. An alternative, of proving that commodities pose a minimal risk of disease transmission, is now being proposed.

Policy lessons

- Pastoralists, private-sector operators and governments involved in trade of livestock products from pastoral areas need capacity-building in promoting, regulating and negotiating trade opportunities
- There is a need to continue engagement with the international regulatory system to press for a commodity-based approach to livestock trade regulation
- There is a need to explore opportunities for achieving higher levels of return from new value chains and specialist livestock products in high-value markets.

Pastoralists in world markets

Pastoralist livelihoods in the contemporary world depend on the sale of livestock or livestock products. With the proceeds of these sales pastoralists can buy grain (attempting to meet human calorie requirements from livestock products alone is in almost all circumstances very cost-inefficient) and other necessities of life such as clothing, contributions to school fees and purchase of medicines. Pastoralist livelihoods are thus intricately bound up with markets. Pastoralists generally sell to local markets, but such local markets in today’s world are in turn affected, negatively or positively, by global markets and global regulations: even where pastoralist livestock are sold to feed urban people in their own country, prices will be affected by world prices for meat and for livestock feed and by tariff and non-tariff barriers affecting livestock trade.

The world, and especially the developing world, is seeing a steady rise in demand for livestock products, most of which will be met by developing countries themselves. Meat demand in sub-Saharan Africa is expected to rise more than 100% over 1997 levels by 2020, and in West Asia/North Africa (a key potential market for African meat) by over 80% (Hall *et al.* 2004). Pastoralists are one category of poor livestock producers who risk being left behind in this “livestock revolution”. Overcoming their problems in accessing markets is an important policy option for enhancing livelihoods.

Problems in accessing markets

Pastoralists suffer many of the disadvantages in accessing livestock markets that are generic to poor livestock-keepers in developing countries. Despite significant positive changes in the openness of world markets subsequent to the implementation of the General Agreement on Tariffs and Trade (GATT) modalities, trade in livestock and livestock products remains both highly regulated and highly distorted. Especially where livestock sourced from poorer producers in developing countries are concerned, transaction costs are high, there are high costs of compliance with human and animal health regulations, and the minimum scale of entry is usually far greater than potential supply. Potential returns are diminished by higher tariffs on value-added products, or subsidy hidden within the production chains of competitors. All these factors combine with the risk-averse nature of the world's livestock and livestock product market.

The specific problems *pastoralists* face in accessing world markets can be grouped into three categories.

Pastoralists' marketing objectives

The reasons pastoralists sell the animals they do, when they do, are hard for outsiders to understand. They do not necessarily fit well with the demands of modern trading systems. Careful research has disproved the image of pastoralists irrationally accumulating herds for ritual or aesthetic reasons, but has also shown that hanging on to animals can be a rational response to climate fluctuations. Timing of sales may be driven by particular cash needs rather than market demand, and be less predictable than required for the optimum operation of abattoirs. The animals pastoralists do wish to sell may not be of the breed, age, weight and sex favoured by abattoirs.

Long and risky marketing chains

Pastoralists live in remote and inhospitable areas, often with poor transport links. They have difficulties in accessing information on prices and market opportunities. Livestock being trekked or transported to market need feed, water and shade, while in transit and at point of sale. When they arrive at market pastoralists may not be in a position to hold out for high prices. Livestock products, such as milk, may need refrigerated transport or special processing. The private sector may fail to provide necessary infrastructure, leaving it up to governments, with many attendant uncertainties. These factors make marketing difficult, time- and labour-intensive, and risky. Traders and middlemen in livestock marketing are often considered to exploit pastoralists, but research shows that this is exaggerated – traders carry out specialist roles and often bear considerable risk.

Animal disease and regulation

International trade in any livestock products carries risks of transmission of diseases to livestock herds in importing countries, and risks to human health from foodborne diseases. Pastoralists raise livestock in areas with high incidence of animal diseases and practical difficulties in controlling those

diseases. Many pastoralists live in countries where preventive animal health and veterinary inspection services are under-developed. Pastoral livestock often graze across national borders, raising questions of co-operation between national veterinary services and regulatory systems.

These factors place the drive to increase exports from pastoral areas in opposition to the prevailing system of regulating international trade in livestock products governed by the WTO and the OIE (see Box). This system revolves around certifying that the region of production of livestock is free of important animal diseases.

The World Trade Organisation (WTO) sets and oversees the rules for trade between its members for all products including livestock on the basis of the Agreement on the Application of Sanitary and Phytosanitary Measures. The key principles of the SPS Agreement are non-discrimination (e.g. the same rules must apply to all members), scientific justification (e.g. rules must be properly supported by science) and the acceptance of measures to mitigate risk to consumers, animals and the environment as long as they do not impede trade and can be scientifically justified. The SPS Agreement gives the task of setting and promoting standards for livestock and livestock products to two internationally recognised bodies: the Office International des Epizooties (OIE) for animal health and zoonoses and the Codex Alimentarius Commission of the United Nations Food and Agricultural Organisation for food safety (including veterinary drugs, pesticide residues, contaminants, hygiene practices and analytical methods). The central pillar of the OIE's approach is the containment and eventual eradication of a series of Trans-boundary Animal Diseases (TADs) seen as threats to human and animal health. The OIE has responsibility for maintaining a positive list of countries that have demonstrated the absence of key TADS such foot and mouth (FMD), rinderpest, contagious bovine pleuropneumonia (CBPP) and bovine spongiform encephalopathy (BSE).

Effectively, trade in livestock and livestock products have to meet two international standards. The products have to come from areas declared and proved free of TADs and they must also meet normal minimum international food safety standards as designated by the Codex Alimentarius. The SPS Agreement contains numerous clauses aimed at facilitating trade and preventing the rules being used as barriers. It also contains several, rather weak clauses, recognising developmental asymmetry in terms of special and differential treatment. These clauses suggest that least developed countries should be allowed time to comply with rules and that they should be assisted with technical assistance, though there is no obligation on the part of importing countries to do this.

Beyond the demands of the international system, exporting countries may be subject to unilateral import bans, such as those put in place by some of the Gulf States in recent years on the grounds of the presence of Rift Valley Fever in East African livestock. Such bans are not always transparent, scientifically justified, or supported by the OIE.

Trends in development assistance

Donor support for interventions to increase pastoralist access to livestock and livestock product markets have a long pedigree, but in recent years emphasis has shifted from provision of public good infrastructure such as trek routes and abattoirs towards a concern with institutions and policies.

Donor-supported research has developed more nuanced and evidence-based analyses of old questions such as when and why pastoralists respond or not to market opportunities, and the role of livestock traders, as well as the use of value chain concepts and approaches.

Projects such as USAID's SPS-Livestock Marketing Programme in Ethiopia, have adopted goals of increasing meat and livestock exports through policy assistance and capacity-building for government, the private sector and co-operatives (most meat and livestock exports from Ethiopia are sourced and will continue to be sourced from pastoral areas).

DFID has funded the Pro-Poor Livestock Policy Initiative within FAO, many of whose findings and recommendations are relevant to pastoralist access to markets:

- The need to look for success stories of poor livestock-producers accessing markets
- The need to build capacity among key officials in developing countries to participate in negotiations on standards and regulations
- The need to test new value chain models for addressing poverty and mitigating risk, such as stratification of livestock production (separate breeding and fattening) with different levels of health control at different levels.

Trade rules are made by and for national governments and can be challenged and changed if sound scientific and economic arguments are brought to bear with sufficient force and vigour. The DFID-funded CAPE project within the African Union's Inter-African Bureau of Animal Resources began a debate on the need for a fundamental review of the international architecture of certification of livestock exports, away from concern with disease status in the region of production towards certification of commodities or "commodity-based trade". For example, chilled de-boned beef can in principle be exported without practical risk of transmission of foot and mouth disease (FMD), even if FMD is present where the meat is produced. Such a shift, if well-managed, would be very beneficial to developing countries, including those with large pastoral livestock herds, because processing commodities to internationally recognised standards is generally easier than certifying the disease status of regions, particularly inaccessible, politically marginal and sometimes insecure regions.

This has developed into a stream of work where the UK government through DFID and Defra are collaborating with OIE and research organisations to

develop commodity standards. Once such standards have been developed it will be vital that marketing systems to take advantage of them are developed.

Ways forward

Policy work on commodity-based trade in livestock products to facilitate access by pastoralists to world markets should continue. Such work is essentially about levelling the playing field as constituted by international veterinary standards. Improved market access would open opportunities for pastoralists to sell more at higher values, not least because it might open space in domestic and regional markets where exports have taken away more compliant products.

If it can be demonstrated that a commodity-based approach to addressing the risks associated with trade in livestock products is viable, then efforts should be made to support countries and sectors with a high likelihood of success. Many of the capacity-building interventions relevant to agricultural trade in general apply strongly to the pastoralist sector. Increasing the capacity of competent authorities and trade associations, developing infrastructure, understanding the continuing mismatch between pastoralist supply and market demand, promoting the voice of pastoralists in trade negotiations and standard-setting fora, are all examples.

Progress on overcoming the basic market entry barriers may open new opportunities of achieving higher returns from specialist livestock products in high-value markets, such as organic beef and lamb, and known brands of high-quality leather. Speculatively, meat from pastoral areas can be labelled and actively marketed as a product that does not compete with human food needs (because cropping is infeasible in those areas); is likely to be free of pesticide and antibiotic residues; and is associated with poverty reduction.

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PASTORALISM INFORMATION NOTE 8: LIVELIHOOD DIVERSIFICATION FOR PASTORALISTS

Promoting alternative livelihood opportunities for pastoralists, either as an alternative or as a complement to livestock production, must be central to pastoralist development. But new livelihood opportunities will often be highly specific, to women or men, to poorer or better-off pastoralists, to different locations, market opportunities and institutional contexts.

Policy lessons

- Livelihood diversification should be piloted, at the local level, with regard both to participatory diagnosis of what livelihood opportunities pastoralists want, and what opportunities are economically feasible
- The experience of local pilots should be documented, disseminated and collated
- Research is needed to understand diversification processes and how governments and donors can best assist them.

Promoting alternative livelihoods must be central to pastoralist development. Population growth and the weakening of traditional pastoralism by adverse policies make it essential to find other income sources for pastoralists, either as an alternative or as a complement to livestock production, and either in rangeland areas or more distant from them. This recognises the pressures on pastoralism, but does not imply a belief that pastoral livestock production is in itself unsustainable. The search for livelihood diversification can and should go hand in hand with strengthening pastoralism, through improved markets, governance and relief-development linkages.

Understanding pastoralist diversification

It should also be recognised that pastoralists have always diversified: many pastoralists combine livestock production with agriculture. Many have long followed other livelihood strategies. Ways in which pastoralists diversify are multiple and various, and include:

- Crop agriculture, rainfed or irrigated
- Labour migration away from pastoral areas: this often involves low-income, low-status occupations such as working as night watchmen, although some pastoralists or ex-pastoralists get better employment
- Employment or self-employment in small towns in pastoral areas: manual work, services such as tailoring, petty trade
- Working for other pastoralists as herders (or in specialised niches such as collection of particular feed materials)
- Collection/production of natural resource products from rangelands – some of these are high value, such as gums and resins and honey, while others, like charcoal, are low value for the labour involved, and associated with environmental degradation

- Fishing and collection of marine products
- For a few better-off pastoralists, investment in profitable enterprise; trade, transport or real estate.

These activities can be categorised in several ways to help to understand them better:

- Location: in the rangelands, in small towns nearby, in more distant cities
- Whether they are likely to be followed by men, women, or either
- Income
- Occupational security: whether the income stream is reasonably guaranteed
- Requirement for capital investment (start-up costs)
- Requirement for training or formal education
- Environmental sustainability (low in the case of commodities such as charcoal)
- Relation to pastoralism: the activity is dependent on livestock production, a supplement to livestock production, a temporary strategy to restock and move back into pastoralism, or a process of dropping out of pastoralism
- Dependence on pastoral demand: diversified activities that supply goods and services to pastoralists (e.g. tailoring) are vulnerable to crashes in the pastoral system in the way that collection/production of non-pastoral goods such as resins, or out-migration, are not.

There has been little systematic research into the key questions:

- which pastoralists diversify
- what are the relative roles of “pull” factors towards new occupations and “push” factors away from the strains of pastoralism
- what impact diversification has on well-being
- how beneficial forms of diversification can be supported
- how remittances and other resource-flows to home communities are maintained, and can be facilitated by better institutions and policies.

In any case, the current poverty of pastoralists in the Horn suggests that the absolute numbers of poor pastoralists “pushed” into diversification are considerably greater than those of wealthier pastoralists pulled into it.

Ways forward

Education will be the most important long-term route to diversification (see PIN 6). However, while future generations are being educated, there will be a need to identify other more immediate strategies for promoting forms of livelihood diversification among pastoralists that are poverty-reducing and environmentally sustainable.

Solutions are likely to be very locally-specific. New livelihood opportunities will often be specific to women or men, and differentially appropriate to poorer or better-off pastoralists. Opportunities will need both good participatory diagnoses of supply and local market chains, and hard-headed analyses of demand from end-markets, be they domestic or export. In some countries, it

may be possible to adapt well-established measures such as promoting co-operatives, vocational training, micro-finance, or measures to promote economic growth in small towns, to the realities of pastoral areas. Elsewhere new instruments may be needed.

Because of this specificity, *diversification may be best promoted in the near future through small projects by NGOs and others*. Such projects could be funded through existing schemes and challenge funds operated by donors.

It will be important to document and disseminate lessons from such pilots: there has so far been a lack of accumulated documentation of good practice in efforts to stimulate diversification. In the longer term, larger programmes *and policies* that promote livelihood diversification can be designed.

There remains an urgent need for research on aspects of diversification as listed above, with the overall aim of finding ways to identify diversification opportunities that allow sustainable and dignified livelihoods.

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