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Strengthening Demand-Led Animal Health Services in Pastoral Areas of the IGAD Region

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A Living from Livestock

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CONTENTS

PREFACE

This is part of a series of Working Papers prepared for the IGAD Livestock Policy Initiative. The purpose of these papers is to explore issues related to livestock development in the context of poverty alleviation.

Livestock is vital to the economies of many developing countries. Animals are a source of food, more specifically protein for human diets, income, employment and possibly foreign exchange. For low income producers, livestock can serve as a store of wealth, draught power, fuel, prestige and organic fertiliser for crop production and a means of transport. Consumption of livestock and livestock products in developing countries, though starting from a low base, is growing rapidly.

Disclaimer

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EXECUTIVE SUMMARY

The IGAD-Livestock Policy Initiative (IGAD-LPI) takes a regional approach to issues that are common to IGAD member states. It focuses on the regulation of markets for livestock and livestock products and the delivery of animal health services, particularly in but not limited to pastoral areas, to enable the livestock industry to comply with regulations of national, regional and selected international markets.

This working paper draws upon and synthesizes material from a variety of sources, and explores the opportunities for improvement in the quality of animal health services in the pastoralist areas of IGAD member states. Specifically it considers animal health services targeted at two key issues:

- improving market access for livestock and livestock products at the local, national, regional and international levels
- reducing vulnerability of poor livestock keepers, particularly in the face of shocks and crises.

With a specific focus on animal health services, and in support of the overall goal of the IGAD-LPI[1] , the participants at a recent workshop on demand-led animal health services convened by IGAD (Perry and Sones, 2007a) developed consensus vision and mission statements designed to capture the aspirations of the assembled stakeholders. The vision is *enhanced livelihoods of livestock-dependent communities which make a greater contribution to national economies and are supported by effective and demand-led animal health services.* The mission to achieve this is *to facilitate the growth and availability of credible, coordinated and regulated animal health services, provided by a diverse range of appropriate suppliers, which will contribute towards improved market access and reduced vulnerability of livestock-dependent communities in the IGAD region.* The authors fully endorse these statements, and the heart of the paper is a critical review and synthesis of various approaches that could enable the vision and mission to be realized.

We discuss six areas of opportunity. These are:

a. The need for a focus on international trade as a *bona fide* tool for poverty reduction, and the dependency this has on standards of animal health and food safety
b. The need for a focus on reducing the high levels of vulnerability, and the contributions that healthy livestock can make to this
c. The development and regional harmonization of national pro-poor animal health policies
d. The development of regionally-harmonized national strategies for the control of priority market-impeding and vulnerability reducing livestock diseases
e. The development and harmonization of operating policies and procedures for Community-Based Animal Health Systems
f. The integration of emergency livestock interventions with longer-term development and poverty reduction objectives

[1] The goal of the IGAD-LPI is: *Enhanced contribution of the livestock sector to sustainable food security and poverty reduction in the IGAD region.* The purpose of the IGAD-LPI is: *Strengthened capacity in IGAD member states, other regional organizations and other stakeholders to formulate and implement livestock sector and related policies that reduce food insecurity and poverty in a sustainable manner.*

We then present a way forward, in which we propose that a paradigm shift is necessary in order to change current poor levels of animal health service in the pastoralist regions of IGAD member states. This shift should have the following components:

- Enhancing livestock-orientated enterprises and the value of international trade should be central to the regional mandate of the IGAD-LPI.
    - While recognising that live animal trade will continue to dominate exports from the region, a greater role for added-value livestock commodities should be developed.
    - Market export opportunities for added-value livestock commodities in a variety of traditional and new markets should be explored. These should include evaluation of the opportunities for organic, eco-friendly and fair trade products specific to the competitive edge offered by pastoralist livestock keeping.
    - The role, and economic and technical viability of compartments that include quarantine, feedlot, slaughter, de-boning and processing to produce commodities for current and new markets should be explored
    - The animal health and food safety needs along the value chains, using risk analysis tools and Hazard Analysis and Critical Control Points (HACCP) procedures, should be explored; at source of purchase, in quarantine and testing stations, in slaughter and processing and in product export
    - The safety of commodities emerging from compartments in the region vis-à-vis the potential for pathogen transmission should be evaluated carefully to generate the much needed evidence to influence policy on commodity-based trade in livestock products.
- Develop national animal health policies that are driven by the needs of a changing set of livestock and livestock commodity trade opportunities, and support national PRSPs.
    - IGAD, in collaboration with COMESA, to explore their respective roles in facilitating a regional harmonization of animal health policies
    - IGAD, in collaboration with member states, to explore way to build sector level policy capacity and national and regional levels.
- Develop national strategies for the control of priority diseases constraining international trade opportunities
    - IGAD, in collaboration with AU-IBAR, FAO and OIE, to explore its role in drawing on national programmes to identify regional trade-impairing health constraints, and to facilitate the establishment of a regional network of epidemiological capacity developing evidence-based approaches to animal health interventions.
- Formalise the role of CAHW systems as a central component of pastoralist participation in international added-value livestock commodity markets.
    - IGAD, in collaboration with AU-IBAR, FAO, OIE, ILRI and a variety of NGOs, to explore its role in facilitating regional harmonization of operating policies and procedures for CAHWs.
- Ensure that national market-driven animal health services are linked to, and in some cases integrated with, routine and emergency demand for animal health services to reduce vulnerability
- Ensure that market-driven and vulnerability-reducing animal health services are effectively integrated with other national and international emergency response mechanisms engaged in prevention, mitigation and coping strategies for shocks.
    - Beyond this, ensure that the 'machinery' for dealing with emergencies integrated into long term livestock sector planning and development.

1. INTRODUCTION

The IGAD region covers an area of 5.2 million square kilometres, encompassing Djibouti, Eritrea[2], Ethiopia, Kenya, Somalia, Sudan and Uganda. Around 80% of the region is arid and semi-arid lowland receiving less than 400 mm of rainfall per year, although even this is erratic and unreliable. Consequently the region is prone to recurrent and apparently increasingly frequent and severe droughts. At least 20 million of the region's 160 million inhabitants are chronically food insecure. The population in the IGAD region is predicted to reach 480 million by 2050.

The IGAD-Livestock Policy Initiative (IGAD-LPI) takes a regional approach to issues that are common to IGAD member states. It focuses on the regulation of markets for livestock and livestock products and the delivery of animal health services, particularly in but not limited to pastoral areas, to enable the livestock industry to comply with regulations of national, regional and selected international markets.

More than 80% of the region's population derive their livelihoods from agriculture and livestock play an important role in both household and national economies. For example, in Somalia in a normal year, the livestock sector is estimated to provide employment and livelihoods for 55% of the population and accounts for 80% of export earnings Pastoralists are prominent throughout the drier parts of the region and this working paper focuses on opportunities to strengthen animal health services in pastoral areas of the region. Specifically it considers animal health services targeted at two key issues:

- improving market access for livestock and livestock products at the local, national, regional and international levels
- reducing vulnerability of poor livestock keepers, particularly in the face of shocks and crises.

This paper draws upon and synthesizes material from a variety of sources. These include:

- the outputs of a broadly-based IGAD hosted stakeholders' workshop, held in Nairobi in October 2007[3]
- a series of case studies of promising animal health initiatives presented during the Nairobi workshop
- outputs from a specially commissioned survey of providers and users of animal health services in pastoral areas of IGAD member states
- other working papers and reports commissioned by the IGAD-LPI
- other published and unpublished documents
- other relevant initiatives, such as the IGAD/COMESA European Development Fund's Regional Food Security and Risk Management Programme (REFORM) for eastern and southern Africa.

[2] At the time this working paper was written Eritrea had suspended its membership of IGAD.

[3] Perry, B.D. and Sones, K.R. (Editors) 2007a. Strengthening demand-led animal health services. Report on a workshop hosted by the Intergovernmental Authority on Development Livestock Policy Initiative (IGAD-LPI), held in Nairobi, Kenya, 22-24th October 2007.

A Vision for Animal Health Services in the Region

It is important that the frequently heard cry for the "strengthening of veterinary services", the classic supply-side call of beleaguered veterinary authorities, is put in development and poverty reduction process contexts if it is to attract the support and resources it undoubtedly deserves. In the countries of the IGAD region, the key development processes for which improved animal health and food safety are critical are :

a. promoting higher value market access for livestock and livestock products (complemented by all the other services, such as feed, genotype selection, etc.) and
b. reducing vulnerability of livestock-associated peoples (again complemented/supplemented by the other needs such as water supply, rangeland conservation, off-take mechanisms, etc., with peace as an overarching pre-condition for all).

The need for such development and poverty reduction contexts is for two main reasons. First to ensure that the different services do indeed have demonstrable impacts on poverty in the region, and secondly to translate the needs for these services to development economists and political analysts who advise on investment options.

Taking a broad view of the animal health service needs in the countries of the IGAD region, the participants at the recent Nairobi workshop - drawn from state veterinary services, non-governmental organizations, regional and international organizations and representatives of public and private sector livestock and livestock product marketing organizations and businesses - developed a vision statement. This describes the situation they wished to be in with regard to the provision of animal health services in pastoral areas of the IGAD region 10 to 20 years in the future. Their vision was for:

Enhanced livelihoods of livestock-dependent communities, which make a greater contribution to national economies and are supported by effective and demand-led animal health services.

They also developed a mission statement, which describes how the vision will be achieved:

To facilitate the growth and availability of credible, coordinated and regulated animal health services, provided by a diverse range of appropriate suppliers, that will contribute towards improved market access and reduced vulnerability of livestock-dependent communities in the IGAD region.

These vision and mission statements are used in this working paper as a long-term goal and a broad guide to how that goal can be achieved. The heart of the paper is a critical review and synthesis of various approaches that could enable the vision and mission to be realized.

2. PRIORITY THEMATIC AREAS SYNTHESISED FOR CONSIDERATION

Much effort has been made to identify priority targets for the IGAD-LPI, to ensure that it has a sustainable impact in the region. Leonard (2007) concludes that it is important that IGAD-LPI chose targets for policy reform that have a high probability of short-term success, or at least of having a significant impact on the state of public debate. This working paper is focussed on demand-led animal health services, but it is imperative that in considering and recommending targets for future action, due regard is given to the broader issues identified by others. Leonard (2007) for example identifies, through a series of case studies, where policy reform is considered likely to have an impact, and identifies six key areas. These are, in summary:

- International trade in livestock and livestock products
- Animal health (and particularly its impacts on international trade)
- Land tenure
- Livestock raiding
- Functionality of domestic markets
- The call for broader participation in policy making processes

Leonard then goes on to consider three broad approaches that might be taken by IGAD-LPI, and these are:

i. A focus on cross-border issues, given IGAD's mandate to focus on regional issues, and its comparative advantage through its ability to convene high-ranking officials within the region. Within this category he clusters three main opportunities:
    a. Animal health certification, in particular with relation to trade with the Middle East
    b. Disease surveillance and control, in particular with relation to the porosity of national borders
    c. The liberalisation of intra-regional trade to mutual benefit
ii. A focus on issues that are common to the IGAD member states, in which he clusters five opportunities:
    a. Animal health services to pastoralists, particularly through the role of para-professionals (CAHWs)
    b. Land tenure, combined with water and grazing access
    c. Strengthening domestic markets
    d. Wider participation on policy making
    e. Coordination of emergency interventions
iii. A focus on "targets of opportunity" in a few member states, which may offer more immediate and significant poverty reduction benefits. Here he identifies four opportunities:
    a. The Djibouti quarantine and export facility
    b. The export of meat rather than live animals from Ethiopia
    c. Further support to the smallholder dairy system in Kenya
    d. The potential for Somali exports

He discusses the pros and cons of each approach from a generic point of view. Amongst other sources, we consider his evaluation of these three different approaches in drawing conclusions as to the most appropriate targets in relation to animal health services.

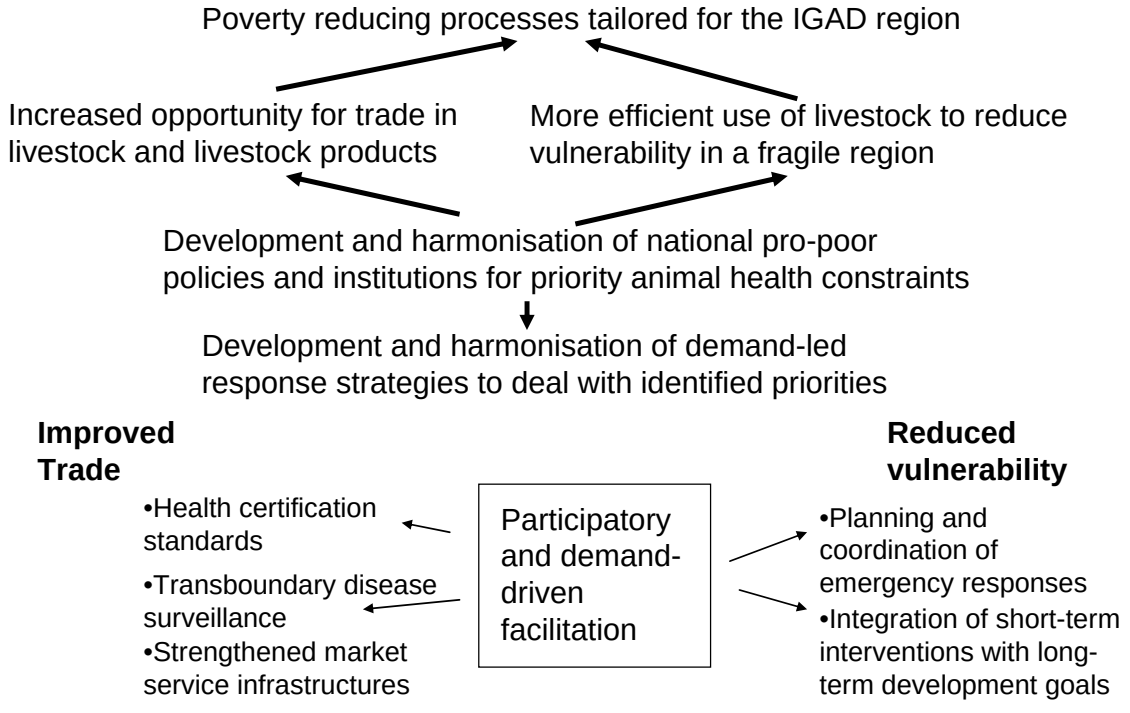
In another background paper, Melaku Desta (2007) reviews the local, regional and international regulatory framework for trade in livestock and livestock products derived from the IGAD region; it is not a happy story. He concludes that there is a

huge disconnect between the oft stated ideals of the western world to promote trade liberalization as a tool for poverty reduction, and the ever increasing severity of measures taken to protect human, animal and plant health, and indeed the economies of the West (manifest by the dramatic economic consequences of recent incursions of FMD into Europe, for example) through raised Sanitary and Phyto-Sanitary (SPS) standards that are becoming increasingly difficult to meet in this ever more divided world.

We believe that the implications for the IGAD region, in which animal health issues present the main barrier to international market access, are clear. Either abandon the aspiration to engage in international livestock trade as a realistic poverty reducing initiative, beyond the targeting of a few limited Middle Eastern markets, or select viable commodity options for trade, supported by strong science-based evidence as to their safety.

Using these and other critical background documents, including the European Union (EU) regional political partnership for peace, security and development in the Horn of Africa (EU 2006), and building on the outputs of the Nairobi workshop on strengthening demand-led animal health services, we highlight six key ingredients for the strengthening of demand-led animal health services within the region, and suggest what role the IGAD-LPI might play in each of these.

Below we present a conceptual framework for more effective and demand-led animal health services which enhance livelihoods of livestock-dependent communities and make a greater contribution to national economies.



Conceptual framework for more effective and demand-led animal health services which enhance livelihoods of livestock-dependent communities and make a greater contribution to national economies

a. The Need for Credible Evidence that International Trade Reduces Poverty, and how this Trade Depends on Standards of Animal Health and Food Safety

Leonard (2007) highlighted the universality of importance in the region attributed to policies surrounding international trade in livestock by IGAD member states. But what is the potential for such trade to play a key role in poverty reduction in the region? In another recent contribution by the PPLPI[4], Perry et al. (2005) concluded that countries with a higher potential to reduce poverty through access to international markets for livestock products are those with:

- a comparative advantage in livestock, which means higher potential to increase domestic livestock prices when complying with SPS standards;
- integrated domestic markets (infrastructure, adequate institutions and policies);
- high participation of poor producers in domestic markets;
- high multiplier effect of the livestock sector, normally related to a well developed crop sector, and developed feed, services and labour markets;
- significant rural poverty with high share of livestock producers among poor households.

Many, but not all, of the IGAD member states comply with these criteria to varying degrees, but as an entire region, surely most of these criteria are met – especially in pastoral areas. We consider that a focus on issues that will facilitate greater access to international trade in both live animals and more importantly a wider diversity of commodities (chilled and frozen meat and other processed meat products) must be paramount on the agenda of IGAD-LPI. This focus will provide significant public and private sector incentives to drive demand-led animal health services in the region that can potentially serve a multiplicity of functions. But given the warnings of Melaku Desta (2007) regarding SPS standards, it is important that the countries of the region explore new ways as to how to best exploit their competitive advantage in livestock, given their compromised infectious animal disease status, coupled with their relatively limited technical capacity in risk analysis and Hazard Analysis and Critical Control Points (HACCP) procedures.

What does "new ways" mean? The main market in the Middle East continues to be for live animals, mainly small ruminants, but also cattle and camels. While this will likely predominate for the foreseeable future, continuing reliance on live animal exports will almost inevitably suffer from periodic disruptions as and when outbreaks of infectious disease occur, in particular Rift Valley fever and foot-and-mouth disease (FMD). These interruptions may well be further complicated by rising standards demanded by importing Middle Eastern countries, in particular Saudi Arabia, as they become members of the World Trade Organization (WTO) and move to align themselves more closely with their standards and requirements. How can the region respond? Some IGAD member states have considered the creation of disease free zones, with particular reference to FMD, but some, such as Ethiopia for example, have reached the conclusion that this would be too difficult technically, and too costly to establish and maintain

[4] The Pro-Poor Livestock Policy Initiative (PPLPI) is a close relative of the IGAD- LPI that has a global mandate. The IGAD LPI is the East African hub of the PPLPI.

An alternative scenario that has been gaining increasing international recognition is to concentrate on trade in commodities, not live animals, in particular de-boned meat (Thomson et al., 2004; Perry et al., 2005), but this approach also has its difficulties, particularly if the commodities are derived from regions of uncertain FMD status. First is the size of the likely market. While there is a growing market for fresh or frozen de-boned beef in the rapidly expanding communities of the Middle East, it is questionable as to whether this market is of a magnitude sufficient to absorb the supply. Second is the fact that under the Terrestrial Animal Health Code (TAHC) of the World Animal Health Organization (OIE), products can only be derived from countries or zones certified free of FMD. While many Middle Eastern markets may not currently follow OIE recommendations with regard to all their meat and livestock imports, as they move to align themselves more closely with the WTO this is likely to change. But of course outside the Middle East there is undoubtedly a large market awaiting, including niche markets (for example for livestock products derived from animals reared under environmentally friendly and enhanced welfare conditions, a characteristic of many pastoralist regions) and fair trade meat products, but access to it is constrained by two factors: firstly the lower price and higher quality of products produced by competitors (in particular Brazil), and secondly by non compliance of most IGAD members with OIE standards, and the risk, albeit small, of exporting FMD virus. The process of de-boning and maturing beef is widely thought to render the meat safe, with the low pH induced by *rigor mortis* killing any FMD virus that might be present. FMD virus is extremely sensitive to pH. Virus survival is optimal between pH 7.2 and 7.6. At pHs above 9 and below 6 the virus is rapidly destroyed (http://www.fao.org/ag/Aga/AGAH/empres/GEMP/avis/A030-svd/mod0/0123-ph.html).

Most of the animals destined for Middle Eastern markets are sourced from pastoralist regions of the Horn in which FMD virus circulates periodically (see for example Barasa et al., in press), and so the risk of FMD infected animals being included in batches destined for export slaughterhouses has to be considered.

To address this dilemma, several initiatives in the region are moving towards the establishment of "compartments", a concept recognised and endorsed by the OIE (although not at present with respect to FMD status). These initiatives generally involve deriving animals from pastoralist regions (with unknown FMD status), putting them through a rigorous testing procedure, then transferring them to a feedlot where they are fattened under quarantine conditions, from where they go directly to slaughter and processing. Initial benefit cost analysis of one such initiative suggests that the limiting factor to this model is not the costs of meeting SPS requirements through testing procedures, but rather the cost of feed in the fattening process (Rich et al., in preparation). This will be a critical factor if products emerging from such a system are to be competitive, particularly if, as in the case of the feedlot and slaughter facility in Djibouti, feed is imported by truck or even by air from neighbouring countries.

While the concept of compartments and commodities emerging from them seems a very sensible approach to exploiting comparative advantage in livestock and reducing the risk of FMD, the science base to this, in terms of the survival of potential pathogens in different products, is still in its infancy. Indeed it is a scientific 'orphan'; the research that is needed to demonstrate compartments can deliver safe meat and other commodities free of disease causing organisms (such as FMD virus) is expensive, time consuming, mundane difficult to fund, and requires scarce highly secure laboratory facilities. Moreover it has little direct relevance to the interests of the developed world, so is not seen as a priority for research investment by them (Perry and Sones, 2007b). This is clearly an area that deserves priority attention. Much of the work on FMD virus survival in meat was undertaken long ago (see for example Stockman and Minett, 1927; Roberts, 1970 and Blackwell et al., 1982), and

was focussed on classical commodities produced in the developed world, but it appears that this evidence is insufficient to satisfy many regulatory authorities. What is probably required is a repetition of such viral survival studies from a range of the specific processing conditions under which the various meat products are derived from the region. Perhaps this is a role for the Biosciences for East and Central Africa (BECA) laboratory facilities, operated under the auspices of the New Partnership for Africa's Development (NEPAD), a programme of the African Union and based at the Nairobi campus of the International Livestock Research Institute (ILRI) in Nairobi, Kenya.

But while there are doubts on some sides as to the science base to the safety of de-boned, matured meat and other such commodities, the politico-economic drivers are such that trade in such products is a reality today; Somalia is reportedly exporting chilled meat already – some 600,000 carcasses in 2006) – so at least some countries are satisfied.

In summary, if this region is to move out of the current impasse relating to the safety of emerging livestock products, further research is necessary. This is required first on the market opportunities for countries of the region, both within and beyond the Middle East, focussed on a much wider range of livestock commodities drawing on the ecological, organic, and fair trade opportunities. It seems appropriate that the IGAD-LPI might play a role in facilitating a partnership with the Common Market of Eastern and Southern Africa (COMESA)[5] and the Markets Theme of ILRI, and potentially the East African Community (EAC), all of whom are likely to be interested in seeing such research undertaken. The second area of research necessary is on the technical viability and safety of commodity based trade in meat products derived from the region, discussed above.

Improving the value of international trade in livestock and livestock products must be a key focus for development in the IGAD region, but it cannot be based on business as usual, and requires technical, market and policy innovations if it is to serve as a *bone fide* poverty reduction mechanism. Armed with such evidence, the 56 African delegates at the OIE General Session would be in a strong position to lobby for wider understanding and acceptance of the compartment concept that would include provisions for FMD and other diseases.

b. The Need for a Focus on Reducing the High Levels of Vulnerability, and the Contributions that Healthy Livestock can make to this

The pastoralist regions of IGAD member states host one of the poorest clusters of communities in the world. As a whole they are vulnerable, with a limited range of enterprise options for their livelihoods. Beyond that, extreme levels of vulnerability can be found within these populations, both at a community level (as a result of drought or ethnic conflict) and at a household level (such as greater vulnerability of women and children). Further compounding this kaleidoscope of vulnerability are the seasonal and periodic climatic disturbances, bringing droughts and floods to this fragile environment, which are themselves often associated with the compounding

[5] The Common Market for Eastern and Southern Africa (COMESA) is a preferential trading area with twenty member states stretching from Libya to Zimbabwe. COMESA formed in December 1994, replacing a Preferential Trade Area which had existed since 1981. Nine of the member states formed a free trade area in 2000, with Rwanda and Burundi joining the FTA in 2004 and the Comoros and Libya in 2006.

hazards of disease epidemics and conflict. The predicted increase in the human population of IGAD member states from 160 to 480 million by the year 2050 is likely to exacerbate this fragility significantly.

Healthy livestock are central to the livelihoods of the pastoralist peoples of the region, and improvements in animal health have been shown to translate into livelihood benefits. However, the role of livestock in prevention, mitigation and coping mechanisms is often inadequately recognised, both in terms of grossly inadequate preventive medicine measures being applied, and the need to broaden the usual food aid and food cropping interventions to include livestock. What is more, animal health services, where they exist, often operate in relative isolation from other community support services. Furthermore, because of the often dramatic humanitarian impacts of seasonal and periodic climatic shocks, emergency interventions sometimes ignore long-standing strategic efforts by various actors to deliver sustainable services to such communities that reduce their susceptibility to such shocks. So sustainable initiatives are often damaged by emergency interventions. This can be exacerbated by a lack of coordination and communication among NGOs operating in the same region. In some cases, there have even been cases of large-scale inappropriate interventions being applied in the IGAD region, such as vaccination of livestock during drought, which is now being questioned by some experts (Catley et al, 2008).

In summary, responding to the demands of the dynamics of human vulnerability is a critical component of long-term indigenous service capacity in the pastoralist areas, and animal health forms an integral part of such a service. Given the key role of livestock as livelihood assets, such a service should be better integrated with both other aspects of vulnerability-reducing interventions, and also with community-level services that support greater market access.

Interestingly, there is a strong link between the incentive of export markets and reducing vulnerability in the time of droughts. Recent experiences in a study in the southern regions of Ethiopia demonstrated a clear link between livestock/meat exports and pastoral vulnerability, whereby the same institutions and mechanisms that support export of livestock in good times can be also used for de-stocking operations during droughts (Feinstein International Center, 2007[6]).The ongoing development processes and programmes which are intended to strengthen the Ethiopian export trade have a direct impact on relief programming. The Moyale case study referred to in this report also indicated that further refinement of government procedures, such as easing of the frequent taxation points along main highways, would assist rapid commercial de-stocking.

The key issues affecting animal health interventions in crises can be summarised as:

- Interventions can be inappropriate for the emergency (e.g. veterinary services in droughts where feeding may be more appropriate)
- Interventions can undermine existing service deliver mechanisms (e.g. bringing in drugs from outside rather than working through local actors)

[6] http://fic.tufts.edu/downloads/ImpactAssessmentsofLivelihoods-basedDroughtInterventionsinMoyaleandDireWoredas.pdf

c. The Development and Regional Harmonization of National Pro-poor Animal Health Policies

With a focus on the development and facilitation of international trade in countries in which it is deemed feasible and pro-poor, it is important that such countries have national animal health policies that reflect the demands of international market access. Also, it is desirable that a wide range of disadvantaged players, such as the landless and the livestock-less, are able to participate along the market chain, through employment opportunities. Such animal health policies should also be reflected in Poverty Reduction Strategy Papers (PRSPs), where they exist[7], and with the Millennium Development Goals (MDGs), and take into consideration issues such as gender and long-term sustainability. To our knowledge, no IGAD member states have a current national animal health policy. Kenya has a draft national livestock policy currently awaiting consideration by the Government of Kenya. There are historical animal health policy documents for some countries of the region, but invariably these are outdated, were very much government driven and in some cases based on heavily subsidized services, did not reflect poverty reduction processes, and had not been developed through broadly participatory processes.

The raw ingredients of an animal health policy include a clear definition of national development and poverty reduction goals, of the role of livestock in meeting those goals, of the priority animal health constraints and a clear understanding of how disease control is to be brought about. Clear criteria are also required as to how priorities are identified. Perry et al. (2002) focused on the direct constraints to livestock-dependent peoples on less than US$ 1 per day, and used a semi-quantitative prioritization that ranked diseases by the impact they had on livelihood enterprises adjusted by the number of poor affected. For this, livestock were considered to contribute to three key livelihoods activities; securing basic assets, improving productivity, and improving market access.

But while poverty reduction processes involving livestock enterprises obviously require a focus on the poor livestock keepers, they also require the engagement of other sectors of the livestock industry, in which employment and service functions play an important role. Perry and Rich (2007) considered the impacts of FMD control on poverty reduction using the broader national concept of "pro-poor growth" (DFID, 2004), which illustrates how the same disease can have different levels of poverty impact under different combined political, economic and production system settings.

Another approach to disease prioritisation is the use of participatory epidemiology (PE) to understand how pastoralists rank diseases (see for example Catley and Admassu, 2004), and the incorporation of this approach also responds to the need for broader and more participatory approaches to policy development.

Regardless of the methodology used to link animal health improvement, poverty reduction and market access processes, it will be important to identify a short list of priority disease targets to ensure technical and economic feasibility. In a recent study commissioned by the IGAD-LPI (Perry and Sones, 2007a), a range of stakeholders in the region, representing both supply and demand sides of animal health services, were asked to identify priority animal health constraints to improving market access and reducing vulnerability. With regard to market access, the diseases predominating were RVF and FMD, with rinderpest and lumpy skin disease also featuring prominently. With regard to vulnerability, dominant were PPR, CCPP (both likely reflecting the role of small ruminants as fundamental assets), FMD and internal and

[7] Livestock development is understated or not mentioned in many of the PRSPs of IGAD member states.

external parasites. Whilst it is likely that a more structured assessment involving a wide range of relevant stakeholders would be required to ensure relevance and widespread buy-in, these findings provide a useful initial insight.

In order to meet the demands of the very wide range of stakeholders in national livestock sectors, and to ensure buy-in in their adoption and implementation, it is critical that the development of national animal health policies be truly participatory. Leonard (2007), in his synthesis of case studies, identified the call for broader participation in policy development for the livestock sector. The IGAD region has a landmark model as to how this can be achieved in Ethiopia, where a widely participatory Livestock Policy Forum has been established by the Ethiopian Ministry of Agriculture and Rural Development, and facilitated by the Feinstein International Center, under the auspices of which fall various working groups with membership drawn from a variety of public and private sector agencies.

Given its strong convening power at the highest level of government, could IGAD play a role in promoting and facilitating the very logical case for harmonised animal health policies, drawing on and out scaling success stories in it member states? The answer must be yes, but it must be born in mind that it will involve harmonising the strategies of a set of countries which in many cases are competing for the same export markets, with all the complications this implies.

d. The Development of Regionally-Harmonized National Strategies for the Control of Priority Market-Impeding and Vulnerability Exacerbating Livestock Diseases

Having identified animal health policies that address priority constraints, strategies are required that will effectively deliver those policies. Given the interconnectivity of many of the IGAD member states, and the "comfort zones" of ethnically homogenous territories that cross national boundaries, the efficacy of any disease control interventions, whether they be to support market access for a particular country, or respond to more widespread climatic shocks, will require that strategies are of a regional rather than a national nature, particularly with reference to the pastoralist areas, the focus of this initiative. This is of particular importance to land-locked Ethiopia, which when moving livestock and commodities by land for export must cross into other countries, but it also applies to other parts of the region in which pastoralists move across borders.

As part of a regional approach, the role of animal disease surveillance networks becomes extremely important, whether conducted informally through communication among veterinary epidemiology units in government ministries, or more formal mechanisms. As an adjunct to this is the potential for a more regional diagnostic laboratory capacity, in which responsibilities for different diseases might be divided among countries, or for the establishment of a regional reference laboratory, which might for example make greater use of the BECA facility at ILRI for specialised diagnostic services that respond to regional needs. This has the potential to save expenditures through the sharing of resources.

Strategic stocks of vaccines (for example for RVF) and indeed other intervention resources and technologies that serve regional demands also deserve further consideration. But many existing vaccines do not provide adequate protection, or are in forms inappropriate for use in pastoralist areas, and so there is also an important

regional role in the documenting of research and development needs, and the interface with organisations such as GALVmed[8] to influence the development of new vaccines and delivery systems that meet the demand. These are indeed challenges, but also opportunities for IGAD LPI to play a key facilitating role.

Similarly to policy development, key to the success of strategy development will be broad stakeholder participation, but in this case it will need to be multi-national. While IGAD-LPI might be a natural convener of such regional strategy development, there are of course other players who will need to be part of this, in particular AU-IBAR, and the newly established regional OIE/FAO/AU-IBAR office based at AU-IBAR in Nairobi.

The major influence on effective national and regional disease control strategies over the past 20 years or so in many parts of the world has been through the establishment of Epidemiology Units of some sort, in order to develop a sound evidence basis for interventions (see for example Perry et al., 2001). In sub-Saharan Africa, many such units have been formed, but sadly many were funded through bilateral technical cooperation project, and have come to an end when project funds dried up. Clearly there have been exceptions. In southern Africa, the SADC Epidemiology Group has both formal and informal networking among the different member countries, and this is a feature that is urgently required in the IGAD region. Many of the IGAD member states have developed Task Forces to consider preparedness measures to combat avian influenza (AI), and there is a potential for these units to take on broader disease control and risk analysis mandates. Ethiopia has upgraded its AI Task Force into a permanent committee on zoonotic diseases, for example.

But beyond national epidemiology units, it could be argued that there is a need for a regional facility for the development of evidence-based strategies for controlling the priority infectious diseases that are common to all pastoralist areas of member states.

Closely related to this from a regional context in the support to international trade is the issue of livestock identification and traceability. This is an extremely important component of any international trade system, but is currently very rudimentary in much of the region (limited to branding). Here is an outstanding example of where regional harmonization is of the highest priority, to ensure that when IGAD member states consider animal identification and traceability options, they seek compatibility with those of their porous bordered neighbours.

e. The Development and Harmonization of Operating Policies and Procedures for Community-Based Animal Health Systems

Emerging strongly from both the assessment of Leonard (2007) and from the Nairobi workshop (Perry and Sones, 2007a) is the unique potential role of Community-based Animal Health Workers (CAHWs) in the IGAD region in a variety of functions, but also a widespread lack of confidence in them at various level due to the absence of agreed

[8] GALVmed is a global not-for-profit organisation (Registered UK Charity) funded through private public partnership principles and supported by the Department for International Development (DFID) of the UK government. Its objective is to reduce poverty by improving access to livestock pharmaceuticals, vaccines and diagnostic products for the world's poorest 600 million livestock keepers. GALVmed's founder members include; Pfizer, FARM-Africa, Merial, Intervet and the International Livestock Research Institute.

operating policies and procedure for their roles in animal health service delivery. But this message is not new; it was for example a strong conclusion emanating from the international conference on primary animal health care in the 21st century held in 2002 (Sones and Catley, 2002), and has been echoed many times since (see for example Abebe, 2006). While there has been some progress on this front (for example the change in the OIE TAHC in which CAHWs are specifically named as one type of veterinary para-professional, and the example of Kenya training its DVOs in pastoral areas as CAHW trainers in around 2005), support to CAHWs still seems to be at the whim of the Director of Veterinary Services of the day. With regard to taking advantage of this increasingly recognised resource, it is surely high time to move beyond analysis to action.

There is a lack of animal health service availability in the vast majority of pastoralist areas of the region by either government or private veterinarians, and with a few exceptions, there is little financial or intellectual incentive for them to take their professional qualification and move to rural areas. A few encouraging examples of individuals who have moved in the face of this trend have been of veterinarians or qualified animal health assistants returning to the pastoral areas where they grew up.

CAHWs have shown their value on various fronts. Although reliance on a cadre of para-professionals who generally receive just a few weeks training is not an ideal solution, it provides arguably the only realistic sustainable option for rural health delivery in pastoralist areas for the foreseeable future. However, there is a need to harmonize the standards (within each country, but there will be significant added value through broader harmonization within the region), develop policies and guidelines on supervision, backstopping, drug supply and use, and disease reporting. There will also be a need to develop systems for the licensing and regulation of CAHWs, as well as their integration with NGOs, government, the private sector and the local community. There is still a major need to overcome opposition by veterinarians based both on prejudice and rational self-interest.

So what needs to be done? Of priority is to develop operating policies and procedures that can be put into operation by IGAD member states. Key to this will be developing standards for the recognition and certification of CAHWs (currently the level and standard of their training is highly variable[9]), and guidelines as to how to provide supervision without stifling their ability to operate as profitable private sector service providers answerable to their communities. Ethiopia, Eritrea, Kenya and perhaps Uganda all have national guidelines already for CAHW systems, and national training guides – the issue is more the capacity of governments to implement, and coordinate the various actors.

f. The Better Integration of Emergency Livestock Interventions with Longer-Term Development and Poverty Reduction Objectives

Given the central role of livestock to the pastoralist regions of the Horn of Africa, it is important that emergency livestock interventions, including those addressing animal

[9] In the Nairobi workshop, a senior government animal health officer made a comment to the effect that 3 months training would closer meet the need than 3 weeks, highlighting the considerable variation that exists. However, the evidence shows very little difference in the quality of services provided by CAHWs who go through different lengths of training – the issue does not appear to be the length of training but rather the quality of training and the frequency of refresher courses. Longer courses tend to be limited to only literate trainees, who then tend to move out of the pastoral system.

disease control, are better integrated with longer term development and poverty reduction imperatives.

There are various aspects to this, which revolve around the importance of sound planning and the development of preparedness guidelines, strongly supported by good communications between the plethora of governmental, NGO and international players involved. This is easily said, but difficult to put into action. Below is a quote from 'Saving lives through livelihoods: critical gaps in the response to the drought in the Greater Horn of Africa' (HPG Briefing Note, Overseas Development Institute, May 2006) on Lessons from the drought in the Horn of Africa, 2005/6.

'If urgent action is taken early in a crisis to protect livelihoods, the effects of drought on pastoralists can be mitigated… Yet agencies, donors and national governments proved unable to address the crisis effectively in its early stages. Livelihoods interventions have been limited, and the response has focused overwhelmingly on food aid.'

'One of the key difficulties in swiftly mounting livelihoods interventions during the early stages of the emergency stemmed from technical and organisational weaknesses in assessing, designing and implementing them.'

A key question is to what extent is the 'machinery' for dealing with emergencies integrated into long term sector planning and development?

One initiative that is trying to address this issue is the Livestock Emergency Guidelines and Standards (LEGS) initiative[10]. It is underpinned by a livelihoods approach and is currently based on three livelihoods objectives:

- Providing immediate assistance to crisis-affected communities
- Protecting the livestock-related assets of crisis-affected communities
- Assisting the re-building of key assets among crisis-affected communities

LEGS focuses on the overlap between emergencies, livelihoods and livestock. The scope will be global, although much of the initial material may be drawn from Africa given the relatively large amount of emergency work conducted there. LEGS will focus on the process of identifying needs and analysing which interventions are most appropriate to support the livelihoods of the affected populations, at which times, and in which emergencies.

The key technical areas to be covered within the three livelihoods objectives are:

- Commercial off-take of livestock
- De-stocking, emergency slaughter and meat distribution
- Supplementary feeding for livestock
- Water provision for livestock
- Veterinary care
- Shelter for livestock
- Provision of livestock to disaster-affected communities

Central to this is the philosophy that emergency interventions relating to animal health, so important at the time of droughts and other crises in the region, should use, complement and enhance existing animal health services, however rudimentary

[10] http://www.livestock-emergency.net

they might be, not undermine them. This means working through local private practitioners, agrovet shops and CAHWs. The Nairobi workshop identified a key strength of NGOs to be their ability to act quickly, in contrast to governments whose bureaucratic procedures may mean slower response times. However the response time of most NGOs is still not ideal, as they of course need to source funds, which takes time. It is important that NGOs do not operate independently. Ideally, NGOs involved in animal health service provision should have a forum for the development of common understanding, methodologies and standards.

3. PROPOSALS FOR THE WAY FORWARD

We are aiming for enhanced livelihoods of livestock-dependent communities which make a greater contribution to national economies and are supported by effective and demand-led animal health services. That is the vision developed at the Nairobi workshop in October 2007. Based on this analysis, we believe that a paradigm shift is necessary in order to change current poor levels of animal health service in the pastoralist regions of IGAD member states. This shift should have the following components:

- Enhancing livestock-orientated enterprises and the value of international trade should be central to the regional mandate of the IGAD-LPI.
    - While recognising that live animal trade will continue to dominate exports from the region, a greater role for added-value livestock commodities should be developed.
    - Market export opportunities for added-value livestock commodities in a variety of traditional and new markets should be explored. These should include evaluation of the opportunities for organic, eco-friendly and fair trade products specific to the competitive edge offered by pastoralist livestock keeping.
    - The role, and economic and technical viability of compartments that include quarantine, feedlot, slaughter, de-boning and processing to produce commodities for current and new markets should be explored
    - The animal health and food safety needs along the value chains, using risk analysis tools and HACCP procedures, should be explored; at source of purchase, in quarantine and testing stations, in slaughter and processing and in product export[11]
    - The safety of commodities emerging from compartments in the region vis-à-vis the potential for pathogen transmission should be evaluated carefully to generate the much needed evidence to influence policy on commodity-based trade in livestock products.
- Develop national animal health policies that are driven by the needs of a changing set of livestock and livestock commodity trade opportunities, and that support – and are supported by - national PRSPs.
    - IGAD, in collaboration with COMESA, to explore its role of facilitating a regional harmonization of animal health policies
    - IGAD, in collaboration with member states, to explore way to build sector level policy capacity and national and regional levels.
    - Key to sound policies will be the development of tools for the prioritisation of diseases exacerbating vulnerability and constraining international trade opportunities
- Develop national strategies for the control of priority diseases constraining international trade opportunities
    - IGAD, in collaboration with member states, AU-IBAR, FAO, OIE and COMESA, to explore its role in drawing on national programmes to identify regional trade-impairing health constraints, and to facilitate the establishment of a regional network of epidemiological capacity developing evidence-based approaches to animal health interventions.
- Formalise the role of CAHW systems as a central component of pastoralist participation in international added-value livestock commodity markets.

[11] Can we learn more from the Somalia chilled meat exports? As far as we know, from the million plus carcasses exported during the last few years, has there ever been an animal or human disease event in an importing country associated with this trade? If not, does this tell us something about risk?

    - IGAD, in collaboration with AU-IBAR, FAO, OIE, ILRI and a variety of NGOs, to explore its role in facilitating regional harmonization of operating policies and procedures for CAHWs, and build on existing CAHW policies, standards and training guidelines where they exist.
- Ensure that national market-driven animal health services are linked to, and in some cases integrated with, routine and emergency demand for animal health services to reduce vulnerability
- Ensure that market-driven and vulnerability-reducing animal health services are effectively integrated with other national and international emergency response mechanisms engaged in prevention, mitigation and coping strategies for shocks.
    - Beyond this, ensure that the 'machinery' for dealing with emergencies integrated into long term livestock sector planning and development.

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