

Policy Options for Pastoral Development in Ethiopia

Report Number 3 Pastoral Economic Growth and Development Policy Assessment, Ethiopia

Peter D. Little
Roy Behnke
John McPeak
Getachew Gebru

***Draft 'Green Paper' for comment only. Please do
not cite without permission of the authors.***

Acknowledgements: This paper is the third of three papers related to pastoral economic growth and development in Ethiopia that were commissioned by the Department for International Development (DfID) at the request of the Government of Ethiopia. Ian Scoones served as a peer reviewer of the report and we wish to thank him for his constructive comments and suggestions. The authors, of course, assume full responsibility for the views and contents expressed in this report.

March 2010

This report addresses policy options for improving pastoral economies and development in Ethiopia and their different tradeoffs. We draw heavily on the findings of our two previous reports (1 and 2) and highlight four key policy areas: (1) land use, especially in the highly productive river valleys; (2) land tenure; (3) settlement and sedentarization; and (4) trade (including related areas, such as animal feed). We feel these four areas are consistent with the government's goals of agriculture-led industrialization, job creation, and private-sector led growth. ***There is considerable overlap among the four policy topics, but the general message is that policies are needed to: (1) sustain the efficient use of variable dry rangelands by protecting the importance of pastoral mobility and avoiding sedentarization as a general solution to pastoral development problems; (2) recognizing existing tenure systems that insure pastoralists access to land and water resources, so they can produce their tradable products; and (3) pursue both regional and domestic trade rather than mainly pursue overseas international and high risk markets.*** Other policy topics that are covered in the report include veterinary services, education, and income diversification. Limits of space did not allow us to include all policy-relevant topics important to pastoral development in Ethiopia.

In the previous report (Report No. 2 on 'scenarios for pastoralism'), we laid out a contrasting narrative for the future of pastoralism. One was that of a vibrant and growing pastoral economy that contributes to local and national welfare and economies, supports a range of different market options, builds on conflict resolution mechanisms between government and local communities, secures pastoral land rights and mobility, and provides economic options for those exiting pastoralism. The second was that of a depressed and unviable pastoral sector that depends on food aid, aggravates existing conflicts, results in higher national consumer prices for animal products, and leads to steep declines in foreign trade earnings. The first scenario recognizes the importance of pastoral production and trade to the national economy, the significance of livestock mobility and flexible tenure systems, and the contribution of regional export (cross-border) and domestic markets to the economy. The alternative scenario was premised on replacing pastoralism with alternative land use systems and investments at high economic and environmental costs, misunderstandings about pastoral tenure systems and the importance of mobility, and an over-emphasis on international animal and meat exports regardless of the costs and benefits to local economies and producers. The following discussion lays out different policy options for improving the contributions of pastoralism to economic growth and development, while avoiding the pitfalls associated with the 'less than optimistic' narrative presented above.

Information for Policy Making

Good policy requires valid information and an institutional framework to systematically collect and analyze it. Unfortunately, there are large gaps in information on pastoral incomes, trade, and land use in pastoral areas that constrain policy formation. If the pastoral sector is to improve both due to the direct benefits to producers and to support the role they play in the larger

economy, the government needs better information on production practices, pastoral household incomes, marketing decisions, and linkages of the pastoral sector to the larger economy. A second gap in data relates to trade information. Consequences are: underestimation of the importance of the informal livestock and livestock product trade (both domestic and cross-border) for the national economy, and overestimation of the importance of official livestock exports. Taken together, we find that there is evidence that a set of gaps in official data leads to a major systematic undervaluation of the economic contribution of pastoralists to the national economy.

Recommendation: the government could create a task force among CSA, Ministry of Agriculture and Rural Development, and other relevant bodies to address the information and statistical data needs for pastoral planning and policy. The goal would be the establishment of a set of pastoral economic benchmarks and an institutional framework, probably housed in CSA, to improve statistical data collection on livestock-related activities, including livestock trade pastoral income data. There is no reason why policy-relevant data on pastoral economies equivalent to what currently exists for cereals production and marketing cannot be regularly gathered and analyzed.

Market-related Policies

A variety of studies have indicated that formal live animal and meat exports are almost exclusively reliant on livestock obtained in pastoral areas. Recognizing that the live animal and meat export markets are dependent on animals produced in the lowlands, there is a strong case for public investment in certain market-related infrastructure, such as market feeder roads. Connecting producers and consumers / processors is a critical step. Legese et al. (2008) and Aklilu (2002) provide some specific suggestions. Besides standard and obvious steps (water, shade, fencing, ramps in markets and roads connecting markets) but noting that unless these are identified as real needs they may not have any impact. Other activities such as building up and regularizing feed markets, improving availability of consumer goods in markets next to livestock markets, ensuring regular and strategically defined market days, and moving market transactions from dyadic negotiation to auctions should be investigated.

Perhaps as important as infrastructure is organization. Most producers are relatively small scale producers. To make marketing more effective, producer organizations can be formed to capture economies of scale in marketing. Desta et al (2006) present an example of such an organization formed in southern Ethiopia in response to the meat export market expansion. Groups could also be helpful in information dissemination and input purchasing. Of course, groups confront collective action and management issues that are not applicable to household production. To the extent government can provide support and a legal framework conducive to fostering collective action among producers that could be an important step toward improved market functioning. The infrastructure and organization efforts should

be seen as complements – either in isolation is not likely to have impact, but the combination is.

Improving animal feed markets has emerged as an area related to marketing that needs more research and development. The government has a role in ensuring quality standards are met in this market, and it would probably be the case that a benefit-cost test of investment in research on least cost rations would come out positive. This will require the creation of national certification standards for the feed industry. The regional research stations in collaboration with ILRI could make immediate steps to identify feed production and conservation technologies that build on what is available in each region of the country. Using technologies such as Near Infra Red Spectrometry (NIRS), policies should be aimed at providing producers information on feed quality to develop this market on a more rational foundation. There is growing use of feedlots. It would be useful to investigate what is the proper balance between fattening in the lowlands for final finishing in the feedlots compared to having more of the fattening take place in the highlands. This could be seen as a research and development effort that will take place over the next five to ten years with a goal of developing technical extension information to deliver to groups starting three to five years from now.

With regard to the exports of meat, we begin with what we do not recommend. ***The ‘creation of disease-free zones for export to the Middle East or OECD’ does not appear to make sense. Given the economic problems this model has encountered in southern Africa and the fact that the trade agreements that fostered it have come to an end, it does not look to be a promising option.*** Second, the cost benefit analysis of Rich et al. (2008) indicate that unless complementary investments are made, notably in feed markets, chilled bovine meat export to the Middle East is not currently competitive with the prices of Brazilian and Indian meat. Either costs have to come down or Ethiopian meat will have to prove superior in qualitative terms to the products offered by competitors in other countries to merit the higher price charged to consumers.

We find investment in border posts, border markets, and support to ease the process of legally exporting live animals across regional borders (decreasing the bureaucratic steps required) to be promising. First, regional cross-border trade is very difficult and costly to try to control anyhow, so it is better to improve the efficiency and ensure at least some revenues from existing trade flows. Second, the government is missing out on the value of this trade. This has two significant impacts. First, it makes the government systematically undervalue the contribution of livestock production to the national economy. We have been struck in this research project by repeated assumptions that the economic value of pastoral and agro pastoral areas is essentially minimal. If one starts with that assumption, then we see how one could think that it is economically beneficial to settle pastoralists down on irrigated farms. But if one recognizes that 95% of the export market is selling animals originating in the pastoral areas, considers the uncounted value of animal products such as milk, notes how the traction practiced in the highlands is not possible without the livestock produced in the

lowlands, and calculates the loss of production that comes from taking key ecological resources out of the livestock production system by conversion to irrigated agriculture, the case becomes much less clear.

The second major problem is that the government ends up not taxing much of the cross border trade and thus does not have tax money to support public investments in veterinary service provision and expansion of this trade. We believe the EXCELLEX effort launched early in this decade merits another look and expansion to other areas. This is the kind of effort that could begin immediately, as the activity is ongoing. We would suggest that government go forward in discussion with participants in these markets to identify how this can be improved for all involved parties.

In sum, to bring the illegal cross border trade into legal status would require improving prices and ease of marketing domestically through major investments in infrastructure, including additional customs and banking facilities on the borders, and subsidies. These actions would be hugely expensive, of questionable sustainability, and might only re-direct the trade to other unofficial channels. Currently traders in Ethiopia's border areas need to traverse several hundred kilometers of territory to officially export their animals because of the glaring lack of banking facilities and customs posts. Further research on this topic, especially the benefits/costs to different actors in the system (e.g., herders and small-scale traders) and the modalities of financing and streamlining export requirements, is sorely needed.

A market information system such as the one developed by the USAID-funded LINKS project housed at ILRI could be expanded and improved. This would provide real time monitoring of the spatial evolution of prices in markets throughout Ethiopia. If market monitors are trained in using standardized assessment techniques, this provides a means for improving market efficiency by smoothing out spatial price differences for animals having similar characteristics in different markets in the country. We would note from early studies that developing a market information system is only one necessary step for information to lead to market efficiency. Producers have to be trained in how to use this information. This means either adjusting production techniques in terms of the kinds of animals marketed at a given age (as seen in the goat meat export market they are capable of change) or feed and veterinary techniques that improve the quality and thus price per head of animals in a cost effective way. But extension built around this information system is critical. This is already in place at ILRI, but could be revised to build on the technical capacity in place, such as SMS and mobile phone technologies.

Veterinary services

Since the mid 1990s, key policy achievements in veterinary service delivery relate to the privatization of clinical veterinary services in pastoralist areas and legislative reforms to facilitate the delivery of veterinary services (this section draws on the Concept Note by Catley [2009]). Specifically these include the:

- recognition of the role of Community Animal Health Workers (CAHW) and the publication *Minimum Standards and Guidelines for CAHW System in Ethiopia*, that legitimizes CAHWs;
- Proclamation No.267/2002 on the need for a veterinary statutory body in Ethiopia for certifying veterinary professionals and para-professionals, including CAHWs;
- development of private veterinary pharmacies and CAHW networks in pastoral regions;
- creation of the Animal and Plant Health Regulatory Directorate in the federal MoARD;
- Increasing recognition within the MoARD of the damaging impact on the private sector of free veterinary inputs during emergency/droughts;
- wider use of veterinary voucher schemes during emergencies.

While these changes are positive, very slow progress has occurred in other areas since 1991 (see Catley 2009). For example, there are inconsistencies between what policy states and what actually takes place in practice, which often leads to both government and private sector delivering clinical services in the same areas.

Another issue that has emerged is the provision of veterinary services related to trade. Aklilu in his brief wrote:

“There is a need to revamp the veterinary service system both at the federal, regional and local level. To get a credible recognition of the Ethiopian veterinary service system by importing countries (the failure of which has led to recurring bans), regional veterinary service offices need to report technically to the federal Animal and Plant Health Regulatory Directorate while remaining administratively within the Regions (as is the case in all countries including in the federal system of Sudan). This is key to setting up a credible SPS system at the national level to satisfy the requirements of current and future importing countries. Secondly, to reduce morbidity, mortality and abortion in pastoral areas, a system should be devised that ensures the uninterrupted supply of drugs and appropriate equipment through Regional, Zonal and *Woreda* offices on loan and/or cash payments to thousands of community based animal health workers that are already trained or to be trained in the future. Of note, it is the pastoral areas that suffer most whenever bans are imposed Aklilu (2009:). “

This is also something of a longer term reform and expansion effort. We see starting this process as soon as possible as critical, but understand it will be a long term process of modifying what is already in place.

Policy reform also is needed to widen the role of private veterinarians while limiting government to regulatory functions and controlling trans-boundary animal diseases rather than clinical services that can be better provided by the private sector. The government presently is developing a legal framework on modalities of private veterinary service delivery, and it is also working on a proclamation for veterinary drug

administration. These reforms should be supported. Until sufficient private veterinarians are attracted to pastoral areas, government needs to support service delivery as well as supervision of the CAHWs through government hired veterinarian and veterinary assistants.

There also is a need for the creation of an independent veterinary statutory body in Ethiopia for licensing of professionals and para-professionals (including CAHWs) and for assisting the federal and regional MOARDS to focus on a core, limited public function; both a statutory body and private sector support are already stated in Proclamation 267/2002, but to date, implementation has been limited (Cately 2009). Given the particular health risks posed by influxes of livestock from neighboring countries and economic importance of pastoral livestock, there is a particular need for policy reform to address the delivery of veterinary services in trans-boundary areas (Silkin 2005). These trans-border diseases and trade challenges will be increasingly important in the future, especially if predictions of future climate variability are valid.

Drought Cycle Management

Drought cycle monitoring is another area where government could take the policy lead in partnership with donors. If through experimentation and trials it is discovered what are the most cost-effective ways of sustaining livelihoods through droughts and recovery, we move from reactively sourced emergency humanitarian food aid to a sustainable local plan that is built around the 'boom and bust' cycle inherent to livestock production in many arid and semi arid areas.

The planning for drought cycle management should build in policies to support drought resilience. Recent experiences suggest that livelihood based emergency response approaches merit further analysis, experimentation, and expansion¹. Recent experiences in Kenya (Aklilu and Wekesa 2002) and Ethiopia (Abebe et al. 2008) report on a variety of different approaches including emergency marketing; transport subsidies for livestock trade; purchasing animals to slaughter and distribute the meat; feed supplementation; and veterinary intervention. Most evaluations of these efforts to date have identified them as having results that clearly pass benefit – cost tests and offer clear advantages over the emergency food aid distribution approach that has been used over the past few decades. Supporting livelihoods during crisis events reduces the impact of the crisis on human welfare and also allows for faster recovery after the crisis.

Land Tenure

The wording of the constitutional clauses pertaining to the land rights of farmers and pastoralists is remarkably similar, but the reality has been quite

¹ One approach that is currently being launched in northern Kenya is to develop private sector insurance for livestock that herders can buy. It is based on trigger points defined by linking historical mortality records with satellite imagery of 'greenness' (NDVI). Insurance pays out based on satellite images indicating that a loss has likely occurred, thus avoiding some of the incentive and administrative problems that arise with insuring a particular animal, though admittedly at the cost of allowing uninsured individual risk exposure to remain.

different. Within the ultimate control of land by the state, the gradual codification of land rights has improved the tenure security for farmers who pay land tax and now can often register their use rights. In contrast, the land rights of Ethiopian pastoralists have become less secure over time. Specific laws to implement pastoral land rights have not been developed.

Ethiopia does not need a wholly new or 'modernized' system of pastoral tenure. Instead, it needs to build upon existing customary systems and clarify their relationship to government – a process of legal and administrative evolution, not radical change. To do this, Ethiopia needs specific laws that put into practice the pastoral land rights that are enshrined in the country's constitution. There are significant differences between the governance systems of the pastoral Oromo, Somali, Afar and South Omo peoples. No single formula can specify in detail how these diverse customary systems of resource control should interact with government. However, under Ethiopia's decentralized federal structure, regional authorities have the ability to adapt national legislation and guidelines to regional circumstances. Outlined below is a framework of national-level laws that could guide these local policy adaptations. They should be phased into practice over a 5-year period.

Recognition of livestock mobility:

Mobility, a key to pastoral risk management in drought, has been particularly controversial in Ethiopia. The government has moved from an explicit goal of sedenterization to one that encourages 'necessary measures to be put in place to encourage pastoralists to settle voluntarily' (Ethiopia 2005), but this remains a long way from viewing mobility as a positive response that should be supported by policy. Mali provides an example of a comprehensive set of laws to preserve livestock movement that can have relevance for Ethiopia's pastoral lowlands. Pastoral routes are classified as part of the public domain and under government protection (Article 52), and movement is sanctioned for purposes of nomadism or transhumance 'across the whole national territory' subject to restrictions on protected areas and animal sanitation requirements (Articles 4, 5 and 14). This policy measure would be worth considering for pastoral areas of Ethiopia, especially in Somali and Afar Regions where seasonal movements often entail long distances.

Protection of pastoral resources:

Losses of pastoral lands have occurred on three major fronts: to irrigated agriculture (see the section on this topic), wildlife and conservation interests, and agricultural encroachment both by former pastoralists themselves and by neighboring non-pastoralists. That Ethiopian pastoralists have developed customary common property land tenure systems is well documented. Without legal guarantees, pastoralists have no security of tenure if individuals or outside interests wish to use their land. Commercial development, extensions to the road network, improved security, and population pressure that has forced farmers to leave the highlands have increased the ability of outside interests to appropriate pastoral property.

Another land issue that recently has emerged in Ethiopia concerns the current practice of leasing or granting land to international commercial interests. The concerns expressed were that key grazing areas would be lost for pastoral production, there was little local knowledge over how such concessions were being granted, and that they could spark a great deal of conflict if not managed well. This program was too new to have much evidence to evaluate it, but it did seem to be an area where there was interest and uncertainty as to what was the nature and goal of the government policy.

The feasibility of some form of land certification in the pastoral areas, probably on a community or group basis, that would secure local land rights should be considered. The Ethiopian government already is successfully involved with rural land certification in cultivation areas of the highlands. Registration or certification also would provide some protection against the current expropriation of pastoral lands that presently is occurring. The key will be to seek a land registration format that secures pastoral land and water rights, but does not compromise mobile pastoralism in the lowlands (Ian Scoones, personal communication). ***Research on different land registration/tenure models that would work in Ethiopia's pastoral areas is sorely needed at present.***

Arbitration and enforcement procedures:

Administrators and customary authorities can usefully mediate between the interests of competing pastoral groups and individuals. **One solution to this problem is for the authorities to promulgate procedural as well as substantive land law. This approach would specify the institutional framework within which interested parties could legitimately put forward their claims to resources, the administrative/jural institutions that should process these claims, and the criteria for choosing between competing claims.**

Land Use

Related to the above issue of land tenure is that of land use. The Ethiopian government has two main options with respect to land use development and the exploitation of pastoral key resources, and the choice of these options will largely determine the future of Ethiopian pastoralism. The example of West Africa shows that it is legally possible to frame laws that protect pastoral land rights. As a corollary, Ethiopia's participation in international livestock and meat trade relies on pastoral production, and any policies that impact the viability of the pastoral production system will have implications for Ethiopia's participation in international trade.

The second option is to pursue non-pastoral land use activities, especially large-scale irrigation, in critical pastoral resource zones. The obvious site for these options is the important river valleys that traverse pastoral rangelands. Our benefit-cost analysis suggests that unlike pastoralism significant public subsidies favor irrigation. Many private irrigated sugar schemes in the Awash, for example, pay nothing for the maintenance of irrigation infrastructure, for water, or for the initial costs of land development. Even then our best effort at comparing

the profitability of livestock, cotton and sugar in the Awash valley suggests that computational uncertainties abound, but rough productive parity is probably a fair characterization of the relative competitiveness of these alternative agricultural systems. Real world uncertainties also complicate these comparisons and need to be considered in land use policies in drought-prone areas. In particular, global climate change is likely to impact both on rainfall and river flow levels in the Ethiopian lowlands. Any decline or increased variability in rainfall from year to year – both of which are possible – would tip the balance towards mobile livestock production and against dryland farming or water-demanding forms of irrigated agriculture.

Between these two extremes—policy support for mobile pastoralism and large-scale irrigation policy—lie other policy options. For example, irrigated or flood recession agriculture mixed with livestock keeping is a traditional farming system in some areas of lowland Ethiopia, and a new system of market oriented production in others. As practiced by smallholders, it can make efficient and intensive use of small irrigated areas combined with seasonal grazing on rainfed pastures. Government policy has encouraged this kind of agricultural system, which probably holds more long-term commercial promise than mono-cropped large-scale plantations. Small holder irrigation is a useful component of lowland agriculture and merits continued support, but it is at risk from the expansion of large scale irrigation projects and will never be able to accommodate more than a minority of pastoralists.

Another land use option is dryland farming, an occupation that poorer ex-pastoralists frequently adopt out of necessity rather than choice. In the lowland areas the risk of harvest failure is high and likely to increase in the future if global climate change brings more erratic or lower rainfall levels. The expansion of dryland farming into zones of lower rainfall should not be encouraged as a settlement policy because of its excessive risks and rates of failure.

Settlement Policy

To be effective, increased investment in pastoral areas would need to be matched by fundamental changes in some long-standing aspects of Ethiopian pastoral policy. Settlement policy is one of these. The problem is not that Ethiopia has a pastoral settlement policy, but that it has a settlement policy that does not acknowledge the critical importance of mobility. By rural Ethiopian standards, pastoralists tend to be reasonably well off (Davies and Bennett 2007). Reasonably well off pastoralists have no reason to want to become poor peasants, and since Ethiopia already has a surplus of poor peasants, the national economy has little to gain from creating more of them. Simply settling people is no solution.

However, the reality is that in many poor, ex-pastoralists reside in pastoral areas and require alternative livelihoods to pastoralism. ***Settlement policies, therefore, must take into account the importance of maintaining mobility but also dealing with growing human populations who have been forced out of pastoralism through drought or other shocks or by choice.*** This

reality suggests the need for a new approach to pastoral settlement that is based more on employment prospects than on dwelling types, as follows:

- ***Education is essential if pastoralists or their children are to exit from pastoralism into formal sector employment, to which many aspire.*** However, educational services and literacy rates in pastoral areas are amongst the lowest in Ethiopia. A commitment to improved pastoral education should be the center piece of the government's 'settlement' policy (see discussion below).
- ***Enterprise and skills training and micro-credit facilities in pastoral towns is needed for ex-pastoralist or those who have opted out of the system.*** Some of these services currently are provided by NGOs in selected pastoral areas but would need to be scaled up. Different forms of non-pastoral occupations can support, even strengthen, the pastoral sector, while other activities, such as charcoal making, can undermine and constrain it. For instance, activities that keep value added in the pastoral sector and promote region-based development, such as sustainable rangeland use (e.g., acacia sap and wild aloe harvesting and animal feed collection), veterinary and input retail supply, post-slaughter livestock processing and distribution (e.g., hides and skins, meat processing), animal fattening combined with marketing, nature-based tourism, and dairy sales and processing. Because they are strongly linked to pastoral production and generate economic multipliers in pastoral areas, they can be called *good forms of diversification* (see Little 2009).

A final policy point that needs to be made about settlement is the ecological problems and localized overgrazing associated with restricting mobility and encouraging pastoral sedentarization. The number of animals is not large enough to lead to ecological problems in Ethiopia's rangelands, but the spatial distribution of them does lead to ecological problems. McPeak (2003) has written about this for northern Kenya, and there are a variety of studies on the 'borehole effect' in various African rangelands. In a comparative setting central Asian states are currently experiencing a major problem with this issue to the point that there is fear of a sectoral collapse. People are not migrating with their animals, and this is leading to major concerns about the environmental sustainability of livestock production and declining profitability and herd sizes. This is generally seen as originating in the lack of state support for migration to remote pasture areas that ended when the Soviet era ended. Ethiopia might wish to look at experiences in other countries to think through some of the larger impacts that may result from policies that support settlement growth in rangeland areas. We suggest that the goal of settling people be pursued with some caution, and with an awareness of the tradeoffs.

Education

Education will be important for pastoral welfare and pastoral economies in Ethiopia over the next 15-20 years. It can offer a window of

access to opportunity for self development and employable skills training among youth so they can serve the community as useful citizens. Because well-paying job opportunities in local areas are few, many of the educated are likely to migrate out and remit back to their home areas. This process already is underway and is likely to increase in the future. Pastoralists in Somali and Afar regions are relatively better positioned and already are benefiting from the flow of remittances. These economic benefits are likely to grow in importance in the future, especially as education improves.

Mobile schools of semi-permanent structures mean that when the community must move because of drought or conflict they can shift with minimal losses. The non-formal schools, including mobile schools, should be scaled-up urgently to improve access to education. However, the scaling up of non-formal education creates an increased demand for both human and financial resources and these needs to be addressed by the government. At the same time there is a need to sensitize and mobilize communities to ensure that children regularly attend schools.

Successful and innovative approaches to education provision around the world can inform and inspire new approaches for pastoralists in Ethiopia, including open and distance learning; primary-level distance education; formal education and revised curriculum to increase local relevance; blended learning²; the role of community radio and ‘edutainment’³, and entertainment education⁴(Krätli and Dayer, 2009). There also is a future concern about the need to improve the quality of learning. This calls for strengthening the performance of school facilitators and supervisors. Other challenges include curriculum, equivalence and certification, linkages between non-formal, the formal school system and community. If alternative basic education is to be mainstreamed by the government, it needs to receive adequate resources, management and programmatic inputs.

Education expands pastoralists (both men and women) access to non-agricultural livelihood activities and also opens opportunities for improved business practice. For those leaving the pastoral system, education provides them with a risk management tool to pursue a livelihood option that is able to generate income and benefits to the pastoral economy.

² Refers to combining instructional modalities (or delivery media) and combining instructional methods.

³ Refers to educational entertainment. It is a blend of Education and entertainment.

⁴ This is a way of using media for entertainment and education. “Media messages can be designed and produced with the specific purposes of both entertainment and education. Using media messages in this way can increase knowledge of and interest in an issue of educational relevance, or influence the audience’s attitude towards a subject, either by introducing alternative points of view, or working at a more subconscious level by introducing new models of social norms and behavioral patterns; in other words, ‘informal learning’ through the vehicle of entertainment.” Krätli and Dayer, 2009: 24).

References:

Abebe, D., Cullis, A., Catley, A., Aklilu, Y., Mekonnen, G. and Ghebrechirstos, Y. 2008. Livelihoods impact and benefit-cost estimation of a commercial de-stocking relief intervention in Moyale district, southern Ethiopia. *Disasters. The Journal of Disaster Studies, Policy and Management* 32/2, 167-189

Aklilu, Y. 2002. An audit of the livestock marketing status in Kenya, Ethiopia and Sudan, Volumes I and II. OAU/Interafrican Bureau for Animal Resources.

_____. 2009. *Livestock and Animal Product Trade and their Importance for Pastoral Economic Growth in Ethiopia*. Unpublished Concept Note for Pastoral Economic Growth and Development Study, Addis Ababa, Ethiopia.

Aklilu, Y., and M. Wekesa. "Drought, Livestock and Livelihoods: Lessons from the 1999-2001 Emergency Response in the Pastoral Sector in Kenya." Humanitarian Practice Network Paper #40. Overseas Development Institute, London. 40 pp. (2002).

Catley, Andy. 2009. *The Role of Veterinary Services in Pastoral Economic Growth in Ethiopia*. Unpublished Concept Note for Pastoral Economic Growth and Development Study, Addis Ababa, Ethiopia.

Davies, J. and Bennett, R. 2007. Livelihood adaptation to risk: Constraints and opportunities for pastoral development in Ethiopia's Afar region. *Journal of Development Studies* 43(3): 490 – 511.

Desta, S., G. Gebru, S. Tezera , and D.L. Coppock. 2006. Linking pastoralists and exporters in a livestock marketing chain: Recent experiences from Ethiopia. Pp. 109-127. In J. McPeak and P. Little (eds.) **Pastoral Livestock Marketing in Eastern Africa: Research and Policy Challenges**. ITDG Publishing, United Kingdom.

Ethiopia, The Federal Democratic Republic of. 2005. Ethiopia: Building on Progress: A Plan for Accelerated and Sustained Development to End Poverty (PASDEP). 2005/06-2009/10. Ministry of Finance and Economic Development (MoFED). The Federal Democratic Republic of Ethiopia, Addis Ababa.

Krätli S. and Dayer C. 2009. Mobile pastoralists and education: Strategic options. Education for Nomads Working Paper 1. International Institute for Environment and Development. London.UK

Legese, G., Hailemariam Teklewold, D. Alemu and A. Negassa. 2008. Live Animal and Meat Export Value Chains for Selected Areas in Ethiopia: Constraints and Opportunities for Enhancing Meat Exports. Improving Market

Opportunities. Discussion Paper #12. ILRI (International Livestock Research Institute). Nairobi, Kenya.

Little, Peter D. 2009. Income Diversification among Pastoralists: Lessons for Policy Makers. Policy Brief Number 3, COMESA and Pastoral Areas Coordination, Analysis and Policy Support (PACAPS) Program, Tufts University, Medford, MA.

McPeak, John. 2003. Analyzing and Addressing Localized Degradation in the Commons. **Land Economics** 78(4): 515-536 (2003)

Rich, K. M., B. D. Perry and S. Kaitibie. 2009. Commodity-based Trade and Market Access for Developing Country Livestock Products: The Case of Beef Exports from Ethiopia. *International Food and Agribusiness Management Review*. 12(3):1-22.

Silkin, T. 2005. Veterinary Services in the Horn of Africa: Where are we now? *Development in practice*, Volume 15, Number 1, February 2005.