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Understanding the Horn of Africa

<http://understandingthehorn.org/>

An online curriculum project of the Center for African Studies
University of California, Berkeley

Guide to a unit on

PASTORALISM IN THE HORN OF AFRICA: Classic and Current Issues

By J. Michael Halderman

A guide to the online curriculum unit contributing to the *Environmental Pressures, Conflict Management*, and *Youth* modules in the Understanding the Horn of Africa web portal

Some items in this unit can also be found on the eScholarship site
http://www.escholarship.org/uc/cas_horn

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PASTORALISM

Classic and Current Issues

A curriculum unit for Understanding the Horn

<http://understandingthehorn.org/>

By J. Michael Halderman

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1. “Classic” Issues That Have Confronted Pastoralism in the Horn

Introduction

The “Classic” issues that confronted pastoralists and pastoralism in the Horn of Africa in the late 19th century and throughout the 20th century are introduced and described in the following readings. Each was written by J. Michael Halderman, the author of this unit on Pastoralism for *Understanding the Horn*, an online curriculum project of the Center for African Studies at the University of California, Berkeley. All of these readings or links to the readings are available via the web portal: <http://understandingthehorn.org/>. It is best to read them in the following order:

1. ***“East African Pastoralists.”*** In *Cultural Survival Quarterly*, volume 8, number 1 (Spring 1984: Special issue on pastoral societies in a changing world) pp. 39-45. <http://www.escholarship.org/uc/item/0mq7q7n9>
2. ***“Problems of Pastoral Development in Eastern Africa.”*** In *Agricultural Administration*, volume 18, number 4 (1985) pp. 199-216. <http://www.sciencedirect.com/science/article/pii/0309586X85900913>
3. ***“Which Route to Follow?”*** In Development and Famine Risk in Kenya Maasai Land. Doctoral dissertation, department of political science, University of California, Berkeley (1987) pp. 39-59. <http://www.escholarship.org/uc/item/77q40572> (This chapter is a short story based on real events that is intended to provide the reader with a deeper and closer sense of the people and issues involved.)
4. ***“The Future of Pastoralism in Turkana District, Kenya.”*** Response to a request for information from students at Wageningen University in the Netherlands (June 2005) pp. 1-2. <http://www.escholarship.org/uc/item/2tc7f988>

Key Points covered in these readings on “Classic” Issues

Pastoralism is widely practiced in most of the vast semi-arid and arid areas found in the Horn of Africa (see the section below regarding which maps in this HOA web portal are relevant). In Somalia, pastoralists make up nearly three-quarters of the population. Although the total number of pastoralists in Kenya and Ethiopia is similar to that in Somalia, pastoralists make up much smaller percentages of those countries’ much larger total populations. Pastoralists comprise a large proportion of the very small total population of Djibouti, and a small proportion of the population of Eritrea.

Major environmental constraints are found in the areas where pastoralists live. These areas are primarily semi-arid and arid where cropping is risky or impossible and there are few reliable sources of water. Pastoralists, however, long ago developed effective systems of using these resources.

As a result of European colonization of the Horn, large areas of land and sources of water were alienated from pastoralists for other uses. In many cases, the lost land was very important to pastoralists as it was essential dry season (and/or reserve) grazing areas with access to key water points (rivers, wells). Kenya is a key example as the land that became the “White Highlands,” where European settlers farmed and ranched, was taken by the British government primarily from the Maasai. (See the short story, *Which Route to Follow?*, listed above.)

Wildlife conservation has also played a major role in reducing pastoralists’ access to land and water. Most of the land in the Horn that became national parks, game parks or game reserves had been long used by pastoralists. The issue remains very sensitive, particularly in some areas, as the land and water sources are considered highly valuable by pastoralists, governments, and wildlife conservation authorities and proponents.

A critical consequence of this loss of land and water was that it imposed major restrictions on the capacity of pastoralists to cope with irregular rainfall and drought, thereby increasing the frequency and severity of food shortage and famine. These factors led to conflict with other groups, both pastoralist and non-pastoralist.

Mobility of people and their livestock is essential to pastoralism, and the restrictions on such movement imposed by colonial and then independent governments became a major problem for pastoralists.

The readings discuss the potential role of development and the obstacles to achieving effective “pastoral development.”

It is important to recognize that “pastoral development” has no sense, or validity to pastoralists, if it does not benefit the pastoralists themselves. It is equally important to understand that pastoralist economic strategy is rational and that the widely used phrase “cattle complex” is inappropriate.¹

However, most non-pastoralists living in the Horn of Africa (as well as most non-Africans working for international organizations, embassies and companies in the Horn) do not understand the issues presented above. Nor do they understand that there is:

- potential conflict between pastoralism and commercial beef production
- a real dilemma between the individual and common interests of pastoralists.

¹ See the “*cattle complex*” entry in the Dictionary of the Social Sciences Oxford Reference.” <http://www.oxfordreference.com/view/10.1093/acref/9780195123715.001.0001/acref-9780195123715-e-228>. The classic article is by Melville J Herskovits. 1926. “The Cattle Complex in East Africa.” *American Anthropologist* 28 (2) (April 1): 361–388. doi:10.2307/661552.

The problems confronting pastoralism noted above began with European colonization in the Horn of Africa, but they have also been a major issue in Ethiopia which was never colonized by Europeans. The authorities of imperial Abyssinia had a very negative view of pastoralists when they greatly enlarged its territory, during the same period that the Horn and other parts of Africa were divided in the scramble for empire near the end of the nineteenth century. During their process of expansion, the Ethiopian authorities claimed enormous areas pastoralists had long inhabited that had never previously been part of Ethiopia. Both the imperial and subsequent Ethiopian governments have been very strongly anti-pastoralist.

During the colonial and independent periods in the Horn of Africa, only a very small percentage of pastoralists received modern education. Even today most pastoralists are illiterate, and this greatly reduces their capacity and opportunities to take part in the government and other aspects of the modern sector.

In many countries of the world, issues related to what Garrett Hardin described in the “Tragedy of the Commons” (see the section on Key References below) are widely found and recognized. In his well-known and frequently quoted 1968 article in Science, Hardin contended that common property resources, such as land shared communally by pastoralists, at some point would become overused and therefore ruined. Such use of land by pastoralists was therefore unstable and would degrade the environment. In the Horn and elsewhere, even those who have never read Hardin believe that African pastoralism is a key example of this “tragedy.”

2. The “Classic” Issues Continue to Confront Pastoralism in the 21st Century

The problems discussed above have increased in recent decades in all of the countries of the Horn. A fundamental reason is that the independent governments of the Horn countries have been dominated by non-pastoralists. Even when individuals and groups of pastoral origin have played key roles in the government, particularly in Somalia, they have generally not been supportive of non-wealthy pastoralists.

Another reason is that there have been several very serious, often widespread, droughts since the countries became independent. Some of the worst droughts have taken place in the 21st century.

The continued loss of land and water sources necessary for the effective functioning of pastoralism led to further restrictions of movement (mobility) thereby increasing the problems facing pastoralists and leading to increased conflict with other groups and with the state.

There have been some major developments in the Horn that have significantly affected pastoralists and other residents of the region. In 1991 the government of the Somali Democratic Republic collapsed and this event was followed by civil war in Somalia. There has been no effective government of what was Somalia since that time. One consequence was the establishment of Dadaab, frequently referred to as the largest refugee camp in the world. Dadaab is located in Garissa District of North Eastern Province of Kenya, a pastoral area. Most of the residents of the camp have fled civil war in Somalia, and many are pastoralists.

Decades of warfare in what is now South Sudan had a major disruptive effect on the peoples there and in neighboring countries. There was an extremely high incidence of conflict between several pastoralist groups in the “Karamoja Cluster” located in southwest Ethiopia, southeast (now) South Sudan, northwest Kenya and northeast Uganda. Kakuma refugee camp was established in Turkana District of northwestern Kenya, a pastoral area. Most of the residents are from what is now South Sudan, others from Somalia, Ethiopia and elsewhere. The well known “Lost Boys” of Sudan were in Kakuma before being resettled in the United States.

The brief two page note “The Future of Pastoralism in Turkana District, Kenya” is particularly relevant here.

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Student Activities & Questions to Answer Related to the “Classic” Issues

Below are (i) suggested activities for students to carry out and (ii) questions for students to answer related to the “Classic” issues that have, and continue, to confront pastoralism in the Horn. The readings listed in the Introduction will serve as a basis. Many of the items found in the section below under “Key References” are highly relevant to these activities and questions.

- Update the statistics regarding the populations of (i) the countries of the Horn of Africa and (ii) pastoralists found within those countries. The somewhat dated population information is found on the first page of the Cultural Survival Quarterly (CSQ) article.
- Note that the source in the CSQ article (Sandford 1976) for the pastoral populations provided what some specialists at the time considered low estimates.
- Have there been dramatic increases in national populations of the countries of the Horn? Of their pastoral populations? Explain.
- Explain why Eritrea and Djibouti are not mentioned in the documents referred to in the Introduction that were published in the mid-1980s.
- What areas and proportions of the individual Horn countries are inhabited by pastoralists? Have these areas increased or decreased in size since: (a) the beginning of the colonial period? (b) the independence of each country? (c) the mid-1980s when the three readings covering the “Classic” Issues were published?
- What proportion of the human and livestock populations of the Horn countries do pastoralists comprise and possess? Have these proportions changed since: (a) the beginning of the colonial period? (b) the independence of each country? (c) the mid-1980s when the three readings covering the “Classic” Issues were published? (It may be difficult to find suitable answers to this question for point “a.”)
- Based on the readings identified in the Introduction, what did the future hold for pastoralists in the Horn? (See the final set of questions below regarding the CSQ article.)
- Compare the projected/anticipated future suggested in the readings identified in the Introduction with the current situation of pastoralists in the Horn. Examine for the region as a whole. Examine for individual countries in the region. Compare information from different sources listed under Key References.

Concerning the influence of external factors on traditional pastoral systems of natural resource management and food production, it is important to recognize that there were very serious problems of severe drought, cholera, locusts, rinderpest and famine in the Horn of Africa for several decades at the end of the 19th and beginning of the 20th

centuries. This was the time period when colonialism was established in the Horn of Africa.

- (a) how did these problems affect pastoralists?
- (b) how did these problems affect the views and actions of the early colonial governments?
- (c) why was the imperial government of Ethiopia able to prevent being colonized, and what effect did this have on, and for, pastoralists in what became the greatly enlarged country of Ethiopia?

What is meant by “Mobility” in regard to pastoralism? How important is it to pastoralists’ systems of using natural resources? How have the changes brought about by colonialism and independence affected pastoralists’ mobility? What have been the key effects on pastoralists’ mobility during the past 30 plus years?

How has pastoralists’ access to land been affected by:

- commercial agriculture?
- communities of poor farmers?

Can you give examples of specific pastoral groups that have been negatively affected by:

- loss of land?
- restrictions on their mobility?
- government policies?

In regard to specific pastoral groups:

- How were Maasai affected in the first two decades of British rule in Kenya?
- How have Maasai been affected since independence in Kenya?
- How have Kenya Maasai been affected in recent years?
- How were Afar pastoralists in Ethiopia affected in the 1970s?
- How have Afar pastoralists in Ethiopia and other countries been affected in recent years?

How have other pastoral groups been affected in the colonial, independent and recent periods?

- Somali live in four of the five Horn countries.
- Boran are found in Ethiopia and Kenya.
- The Hamar and other Omotic groups live in southwestern Ethiopia.

What do you expect to be future consequences for pastoralists in the next 10, 20 and 50 years? Do you expect:

- more frequent and widespread food shortages?
- more famines?
- more or less environmental degradation?
- pastoralists to lose more land?

Or do you expect that in the future pastoralists will be able to more effectively protect their interests? That they will be able to keep possession of their land, especially land necessary for dry season and reserve grazing, and their critical water sources? If this positive outcome is the case, do you believe it will be due primarily to:

- very capable leaders?
- a larger number and/or percentage of well educated pastoralists?
- a larger number and/or percentage of pastoralists who are themselves involved in, or exercise influence on, the government?

The economies of the countries of the Horn were performing very badly in the 1970s and 1980s. In recent years:

- What has been the performance of these countries in regard to per capita growth of GNP and of food production?
- How have pastoralists done in terms of food production and generating income?

Key questions for students based on the article “East African Pastoralists” published in the Spring 1984 issue of *Cultural Survival Quarterly*. In the 1980s some development assistance organizations wrote off pastoralists, arguing that scarce resources were better utilized where they can produce the greatest and surest returns. Students should read each of the readings for the “Classic” Issues,” and then go to the section in the CSQ article “***Is Incorporation Possible?***” (p.43/8) and the “***Conclusion***” (p.45/10). At that point students should provide their views regarding the questions below:

- (a) Is pastoralism in the Horn of Africa an anachronism?
- (b) If yes, what is the future of pastoralists and pastoralism?
- (c) What are the alternatives to pastoralism in the semi-arid and arid areas of the Horn of Africa?
- (d) Is pastoralism an effective method of using the resources in semi-arid and arid areas of the Horn?
- (e) If yes, what steps could be taken to protect and promote pastoralism?

Although Garrett Hardin’s views regarding the “Tragedy of the Commons” are not directly addressed in the readings for this section, readers should look for evidence that supports or rejects Hardin’s arguments.

4. The Emergence of New Issues Relating to Pastoralism in Recent Years

During the past 20 plus years, a number of issues affecting pastoralists and pastoralism have emerged or become much more significant. Some of the new issues are quite recent.

The **use of cell phones** has produced an extraordinary improvement in interpersonal communication in the Horn. There has been an enormous and widespread increase in the use of cell phones in Kenya and, to a lesser degree, in Somalia. There has been significant increase in cell phone use elsewhere in the Horn, although in Ethiopia the government has imposed significant controls.

In several pastoral areas cell phones are quite widely used. This has been very important as distances are often great, there is little infrastructure and extremely few land lines in such areas. The result has been a great improvement in communication in such areas. The continued and anticipated increase in the use of cell phones will have significant implications for the future of pastoralists and pastoralism. It has been an enormous boon for those involved in the livestock trade as they can learn about and quote prices, as well as determine the location and condition of livestock. The use of cell phones has made it possible for businessmen, family members and friends to have regular contact that was previously impossible.

In Kenya the use of cell phones has become extremely important and widespread in transferring money for the general population and for many pastoralists. The M-Pesa system was launched by Safaricom in 2007 and Kenya is now reported to lead the world in the use of mobile money. About 25% of Kenya's Gross National Product flows through M-Pesa which is used by over 17 million Kenyans, more than two-thirds of the country's adult population. M-Pesa is a simple, phone-based service operated by Safaricom that functions as both a bank account and a debit card.

The cover photo of a Dutch newspaper, NRC Next, shows a young Maasai man in traditional dress using his cell phone while standing in front of a herd of cattle. The points written next to the photo of the Maasai man on the cover page suggest how he is using his cell phone (translated from Dutch):

- Just checking where my cow is
- Buying goat meat with mobile money
- Searching for a cow with a special App for a smart phone
- Africa commits to the mobile internet

There has been significantly increased interest and **participation in education** by some pastoralists in recent years. Many families make an effort to enable at least one or some of their children to be educated, thereby increasing the capacity of the family to better cope with the modern world. In spite of this trend, pastoralists continue to have a far

lower percentage of their children obtaining formal education, particularly at secondary school and university, than farming families and residents of urban areas.

In some pastoral areas there have been **increased numbers of girls attending school**, in places relatively large increases. This is highly relevant as traditionally women in many pastoral societies play a subservient role to men and have little opportunity to make and implement decisions. This is different from the experience of many women in urban areas and those belonging to numerous non-pastoral ethnic groups in the Horn who have received education, found employment or otherwise earn income from business. In many cases they have established their own, often informal, business. Another problem facing pastoralist women and girls is that female genital mutilation (FGM) continues to be the norm and is therefore widespread. Many of those who receive education are opposed to this traditional practice and are in a better position to oppose its continuation.

An important recent change has been the introduction and **increased use of solar power** in pastoral areas. This is important as electric power has been extremely limited in these vast areas. For decades the only electric power found in pastoral areas has been local power generators in schools, mission stations and towns. Solar power has already brought about significant change in some areas, and it has tremendous potential to provide electricity for schools, businesses and homes. Key uses directly related to pastoralism include providing power to pump water, often from deep wells, and to preserve milk for sale.

Modern means of transportation have greatly increased, including the use of large trucks to transport livestock, and other goods, long distances. There has been increased use of pick-up trucks and vans to transport goods and people, methods that have been popular for decades in more developed parts of the Horn. A particularly significant recent change has been the large increase in the use of **motorcycles** in some areas, notably by those involved in the livestock trade. Motorcycles use very little fuel compared to pick-ups, vans and other trucks and are therefore much more economical. Many of those involved in the livestock trade have **combined the use of cell phones and motorcycles**, leading to major changes in how this business activity that is central to pastoral areas is being conducted. A large proportion of those using this combination are young men.

Non-governmental organizations (**NGOs**) and community-based organizations (**CBOs**) have been, and continue to be, deeply involved in supporting pastoralists. In some cases the support has gone on for decades, and frequently the objective was to wean the people from their pastoral livelihoods. In many cases these organizations have, and continue to, provided famine relief to people who had lost their livestock due to drought or other reasons. In the 1980s some international and other donor organizations stopped funding pastoral development projects. For many years the NGOs and CBOs were left on their own to support such development, resulting in a wide range and quality of approaches. More recently there has been a significant increase in the number of NGOs and CBOs involved with pastoralists in drought and famine relief, education and development efforts.

Another significant change has been the increased funding of pastoralists from their diaspora. This has been most widespread among the **Somali Diaspora** who are found in large numbers in the Middle East, South Africa, the United States, Canada, the United Kingdom, Europe and elsewhere. In the Horn the Somali people are located in what was once the independent nation of Somalia, the Ogaden region of Ethiopia, the northeast of Kenya and in Djibouti. The total amount of money involved is estimated to be very large, and the use of cell phones often plays a key role. Some diaspora funding also exists for other pastoral groups in the Horn, but the diaspora populations and the amounts involved are small.

The dramatic increase in **foreign interests obtaining large tracts of land** in the Horn to grow crops for export is a particularly important recent development. This practice is most widespread in Ethiopia and is done via direct negotiations with the central government. Such land requires suitable soil and sufficient rainfall, or other access to water. This land is inevitably already occupied or regularly used by communities of farmers, agro-pastoralists or pastoralists. For pastoralists, a key factor regarding such areas is the existence of one or more reliable sources of water on the land.

These are, in many cases, areas that pastoralists have traditionally used for centuries, or decades, as dry season or reserve grazing areas. In recent years there has been increasing conflict between those who have traditionally used such land and others (outside groups, wealthy individuals or businesses) who want to gain access to and use the land to earn money. That such land is now being provided by the state to foreign interests means that the local people currently using this land are thereby losing and no longer able to use the land. This land is extremely important to the local people as it is their source of food and livelihood.

The **role of the Chinese** government and businesses in the Horn is a recent factor that has become increasingly important. These entities enter into often large scale agreements with national governments of the Horn to build roads and other infrastructure, and to obtain land as described in the previous paragraph. In several cases these agreements affect pastoralists and pastoralism and deserve study.

The **recent discovery of oil** in some countries of the Horn could have a major impact on pastoralists. The locations of the oil that has been found, and where additional searches are currently ongoing, are in pastoral areas of northwestern Kenya, southwestern Ethiopia and in South Sudan near the border with Kenya. (Oil was recently found in northwestern Uganda and the government is currently in discussion with three oil companies.) For decades these areas have experienced an extraordinary amount of conflict as they have been destabilized by civil wars in Uganda and, until recently, in what is now South Sudan. These problems, plus major conflicts within both Ethiopia and Somalia, led to an enormous influx of small arms from these four countries. A significant result of this instability in the region was long-running and ongoing conflict between the many local

pastoral groups in what is known as the “Karamoja Cluster” (southwest Ethiopia, northwest Kenya, southeast Sudan and northeast Uganda).²

There are currently high-level discussions about competing possibilities of building three different pipelines to transport the oil out of this remote arid and semi-arid area where relatively few people live and where very little development has taken place. The heads of state of Kenya, Ethiopia and South Sudan met in March 2012 in Lamu Kenya, on the Indian Ocean coast, to discuss beginning the construction of a pipeline to Lamu. In addition to building the pipeline from Lokichar in northwestern Kenya, a major port would be built in Lamu. A different pipeline that would run from South Sudan and southwestern Ethiopia to Djibouti is being considered by officials of the countries concerned. Uganda is keen to build a pipeline for its oil that would either pass through Kenya to Mombasa or through Tanzania to Dar es Salaam. The governments of each of the countries involved are also keen to develop refineries within their own borders, and South Sudan has already begun to build two small refineries.

² For background see Halderman, J. Michael, H. Jenner, N. Karuru, M. Ong’ayo, S. Smith, Z. Smith, and L. Carter. 2002. “Assessment and Programmatic Recommendations: Addressing Pastoralist Conflict in the Karamoja Cluster of Kenya, Uganda and Sudan.” Greater Horn of Africa Peace Building Project. Report Prepared for USAID. Berkeley and Washington DC. http://pdf.usaid.gov/pdf_docs/PNACP730.pdf.

5. The Potential of Pastoralism to Cope with Climate Change

Climate change is one of the most important issues to emerge in the world in recent years. It is expected to have a strong impact on the Horn of Africa, and many believe that its effects have already begun. The changing climate will undoubtedly have a major impact on semi-arid and arid areas where most pastoralists live. It is very important for ***those with power and resources in, or related to, the Horn to recognize that pastoralism is the most effective land use system for local people in such semi-arid and arid areas.*** Pastoralists are far better prepared to cope with drought, and other factors that will result from climate change in such areas, than those who primarily rely on raising crops.

Pastoralism in the Horn evolved in response to environmental conditions. As recent research has demonstrated and explained, pastoralism has proven to be the most effective system of large scale resource use in semi-arid and arid areas. To function effectively, pastoralism requires adequate land and water. ***Reliable access to dry season grazing and water is essential.*** This includes access to what are known as “reserve” grazing areas and water during serious and/or protracted drought.

The ***mobility of livestock and people lies at the heart of pastoralism,*** as this is the essential factor that enables pastoralism to function well in semi-arid and arid areas, and during drought. The enormous loss of land, and access to key water sources, during the past 100 plus years has dealt a powerful blow to such pastoral mobility.

Much needs to be done soon in the Horn to establish and/or enforce appropriate policies and regulations to ***protect the rights and resources of pastoralists,*** and agro-pastoralists, before they lose so much land, water and other resources that their production systems become no longer viable. Some pastoral groups may have already been squeezed too far to function effectively with the limited resources they have left.

There will be two key negative consequences ***if pastoralism becomes no longer viable*** for the majority of pastoralists in the Horn:

- the communities and countries concerned will have lost a remarkably effective system of coping with global climate change
- the countries involved will be confronted with very large numbers of impoverished people unable to be self-supporting.

The International Institute for Environment and Development (IIED) based in the United Kingdom has carried out and/or supported very useful activities and research concerning pastoralism in numerous African countries (<http://www.iied.org/drylands-pastoralism>). For many years the IIED has provided a generic two week training course on “Pastoralism and Policy Options in East Africa” at the MS-TCDC training center in Arusha, Tanzania. It has also, for example, supported the Pastoralist Development Network of Kenya (<http://pdnkenya.org/>) comprised of individual pastoralist groups,

pastoralist NGOs and CBOs, and non-pastoralist organizations and individuals supporting the pastoralist development process in Kenya. More broadly, IIED is currently working on the reinforcement of pastoral civil society in Africa.

According to an April 2013 IIED Briefing paper, Global Public Policy Narratives on the Drylands and Pastoralism: “A closer look reveals pastoralism’s many positives .The increasing recognition that pastoralist systems in the drylands can work with environmental variability, rather than against it, opens up an alternative storyline for global food security under climate change.”

IIED has identified three key components that need to be carried out:

- **Providing training to overcome the knowledge gap** among policy-makers about (i) the dynamic ways in which dryland ecosystems function, and (ii) how pastoralists’ methods of using natural resources effectively respond to the dryland ecosystems;
- **Reducing the differences in power** between (a) pastoralist communities and (b) government at all levels, and various interest groups, that impede the establishment and/or implementation of policies and laws that promote equitable and effective natural resource management by pastoralists;
- **Training and strengthening communities and local governments** to (i) better communicate with each other and to (ii) effectively respond to the realities of drylands in a time of climate change.

Kenya’s Ministry of State for Development of Northern Kenya and Other Arid Lands has established an Arid and Semi-Arid Lands (ASAL) Secretariat to harmonize, align and coordinate development across Kenya’s arid lands. The Ministry has asked IIED, in partnership with national bodies and one community based association, to identify how to make climate change central to development planning and delivery. The Ministry plans to apply lessons from this work across Kenya’s drylands and to ensure that drylands become an integral part of climate change adaptation policy and relief, including attracting “climate finance” for locally defined climate-resilient growth.

6. Student Activities & Questions to Answer Related to the New Issues and to Climate Change

Below are (a) suggested activities for students to carry out and (b) questions for students to answer related to the “New” issues that have emerged, or become more important, in the Horn in recent years. Students can find useful information regarding these questions and activities in the relevant websites listed below, YouTube videos, and in the “Key References.”

The use of cell phones.

How much has the use of cell phones increased in pastoral areas of each of the different countries of the Horn in the past few years?

What are the reasons for this increase? Business? Personal?

Will there be further increase in the future? In which countries?

What countries are limiting the use of cell phones? What are the reasons? What are the consequences of such limitations for pastoralists and the livestock trade?

Participation in education.

What percentage of pastoralist children of school-going age are currently attending and completing school in each of the Horn countries? What are the differences between pastoral ethnic groups in the different countries:

- attending primary school? completing primary school?
- attending secondary school? completing secondary school?
- attending university? completing university?
- of any age who have attended/completed literacy classes.

From the perspective of pastoralists, what are the strengths and weaknesses of the different educational systems in the Horn countries?

Why do pastoralists lag so far behind members of agricultural groups and residents of towns and cities in terms of obtaining education at various levels?

What are the (a) results of recent and on-going efforts and (b) future possibilities of *using cell phones and other forms of distance learning to provide education to pastoral communities*? What support are these efforts receiving from the governments of the Horn countries, donors, NGOs/CBOs?

Increased numbers of girls attending school.

What percentage of pastoralist girls are attending and completing school (primary, secondary, university, literacy classes):

- from different pastoral groups?
- in the different countries of the Horn?

Are pastoralist girls still dropping out of school at high rates? Where and why has this pattern changed? Stayed the same? What are the reasons?

Has attending or completing school at various levels enabled pastoralist girls and women to obtain employment? To reduce their subservient position to men in pastoral society?

Has attending school reduced the practice of female genital mutilation (FGM)?

The increased use of solar power.

What have been the effects of the increased use of solar power in pastoral areas?

Where has the increased use of solar power in pastoral areas taken place (by country, province, district)?

Has it had an impact on increasing educational opportunities? On establishing or supporting businesses (what kinds)? On pumping water for people and livestock?

Modern means of transportation.

How has the use of large trucks to transport livestock affected the trade in livestock? Where are livestock transported from and to? Do some livestock transported by truck cross international borders?

How widespread is the combination of motorcycles and cell phones in the livestock trade? Where does this combination occur? What are the effects?

How widely used are pick-up trucks and vans to transport people and goods?

NGOs and CBOs involved in pastoral development.

Give one or more example of an NGO or CBO that has provided particularly valuable help to pastoralists. This help could be provided to: pastoralists in general, a specific group (or groups) of pastoralists, women, reduce FGM, support livestock trade, promote education, increase opportunities outside pastoralism, etc.

Examine how NGOs and CBOs have been involved in famine relief operations, and in assisting pastoralists to better withstand drought.

Examine the current role of large donors and international development organizations in regard to the above issues.

The Somali and other Diaspora.

Discuss how the Somali Diaspora functions in general: the countries in which the Diaspora are located, the estimated amounts of money that are sent to the different parts of the Horn where Somalis are found, how the money is used, how important cell phones are in this support activity.

Examine how the Somali Diaspora in one country, for example Canada, functions.

Identify and examine a diaspora from another pastoral group in the Horn of Africa and carry out steps similar to those listed above.

Foreign interests obtaining large tracts of land in the Horn.

Identify where such land is located in the Horn: in which areas of which countries? Who is currently living on or regularly using this land? Pastoralists? Agro-pastoralists? Farmers?

What agency or agencies, national and/or local government unit and/or business, are involved in identifying such land and making the arrangements with the foreign interests?

Which foreign interest (or interests) is obtaining the land? What country is it from? Are representatives of a foreign government involved? Is a business involved? What is the relationship between the foreign government and the foreign business?

What are the details of the arrangement? How much is the foreign interest paying? Who is paying whom? What is the time period? What are the conditions of use? Is there any guarantee that the land will be managed carefully? Is there a risk of environmental damage?

How are the current users of the land being treated? What rights do they have to the land and water? Who is representing the local people? Negotiating on their behalf? Are some local leaders being bought off? Are the local people expected to immediately stop using the land? What alternatives are provided to obtain food and livelihood?

If pastoralists have been traditionally using the land in question, do those involved on the side of the local or national government making the arrangements with the foreign interests to obtain the tracts of land respect the rights of the pastoralists?

Are foreign interests obtaining land in the Horn to raise and export livestock? In which country or countries? To which country or countries are the livestock or meat being exported?

The role of the Chinese.

If the Chinese government or one or more Chinese business is involved in activities that affect pastoralists in the Horn, some of the points presented in the preceding section may be relevant.

The recent discovery of oil.

Where has oil been recently discovered in the Horn? Where is exploration for oil currently ongoing? How will the oil be exported? What are the routes of the proposed pipelines that are being considered? What decisions have been made about the route and construction of one or more pipelines?

How will the discovery, extraction and pipeline transportation of oil affect pastoralists in the Horn? In particular, what will be the effects on the pastoralists living in northwestern Kenya, southwestern Ethiopia, southeastern Sudan and northeastern Uganda (the “Karamoja Cluster”)? Are the Horn governments and involved oil companies seriously considering the rights and interests of these pastoralists? What role or roles are NGOs and CBOs playing in regard to these issues? How much influence and “clout” do the different actors have?

What are the consequences of the extraordinary amount of conflict that has gone on in the Karamoja Cluster for decades? Of the fact that the local pastoralists are very well armed?

What is the relevance of the fact that the pastoralists in this area have suffered serious drought and famine during the past 30 plus years? That large numbers of pastoralists have “fallen out” of pastoralism? That many pastoralists face a bleak future?

The Potential of Pastoralism to Cope with Climate Change.

Is climate change in pastoral areas recognized as a serious problem in the Horn of Africa? If yes, what evidence is there of such recognition? If no, what evidence is there that it is not recognized?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- by CBOs?

Is it recognized that pastoralism is the most effective land use system for local people in semi-arid and areas of the Horn? And that pastoralists are far better prepared to cope with drought and other factors related to climate change than those who rely primarily on raising crops?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- By CBOs?

Is it recognized that pastoralism requires reliable access to dry season grazing and water, and to reserve grazing areas and water during serious or protracted drought? Mobility of people and livestock is essential to pastoralism, and that it is the key to enabling pastoralism to function well in semi-arid and arid areas?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- By CBOs?

What steps have been taken to establish and/or enforce appropriate policies and regulations to protect the rights of pastoralists and agro-pastoralists?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- By CBOs?

Is it recognized that if pastoralism becomes no longer viable in certain areas that the result will be very large numbers of impoverished people unable to be self-supporting?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- By CBOs?

Is appropriate and effective training being provided in each of the Horn countries to overcome the knowledge gap among policy-makers, and other influential groups, about:

- how dryland ecosystems in the Horn function?
- how pastoralists' systems of utilizing natural resources effectively respond to the dynamic dryland ecosystems?

Are appropriate and effective steps being taken to reduce the differences in power between (i) pastoralist communities and (ii) all levels of government and key interest groups, so that policies and laws that promote effective natural resource management by pastoralists can be established and/or implemented?

- by national and local governments in the Horn?
- by international organizations?
- by bilateral aid agencies?
- by international and local NGOs?
- By CBOs?

At the level of local communities and local governments, is appropriate and effective training being carried out to enable the communities and governments to:

- better communicate with each other?
- effectively respond to the real conditions in the drylands in a period of climate change?

Is Kenya's Arid and Semi-Arid Lands (ASAL) Secretariat succeeding in making climate change central to development planning and delivery? What steps have been taken to ensure that the country's drylands become an integral part of climate change adaptation policy and relief? Has "climate finance" been obtained to promote locally defined growth that is "climate resilient?"

7. Relevant websites and Youtube Video: Horn of Africa: Pastoralism

Future Agricultures Consortium - Pastoralism

<http://www.future-agricultures.org/research/pastoralism#.Ub8hgue-rRk>

Institute of Development Studies –IDS - Livestock and Pastoralism

<http://www.ids.ac.uk/go/livestock-research>

International Institute for Environment and Development - IIED

Drylands and Pastoralism

<http://www.iied.org/drylands-pastoralism>

IIED

Modern and Mobile: The Future of Livestock Production in Africa's Drylands

<http://pubs.iied.org/12565IIED.html>

WIKIPEDIA

Pastoralism – Wikipedia, the free encyclopedia

<http://en.wikipedia.org/wiki/Pastoralism>

Wikipedia – Images for pastoralism in East Africa e.g.:

<http://commons.wikimedia.org/wiki/Category:Pastoralists>

FLICKER images

<http://www.flickr.com/search/?q=pastoralism%20east%20africa>

<http://www.flickr.com/search/?q=pastoralism%20horn%20of%20africa>

OXFAM

Survival of the fittest: Pastoralism and climate change in East Africa

<http://www.oxfam.org/sites/www.oxfam.org/files/bp116-pastoralism-climate-change-eafrica-0808.pdf>

Coalition of European Lobbies For Eastern African Pastoralism - CELEP

<http://www.celep.info/>

Fact Sheet: Eastern African Pastoralism - celep

www.celep.info/wp-content/plugins/download .

Overseas Development Institute - ODI

Pastoralism, policies and practice in the Horn and East Africa

<http://www.odi.org.uk/publications/3303-pastoralism-policies-practice-review>

ODI - Pastoral Development Network Papers

<http://www.odi.org.uk/publications/4375-pastoral-development-network-papers>

Global New York Times (particularly World – Africa)

<http://global.nytimes.com/>

The Economist

<http://www.economist.com/>

IRIN Humanitarian News and Analysis

IRIN Africa / Pastoralism's economic contributions are significant but overlooked

<http://www.irinnews.org/report/98052/pastoralism-s-economic-contributions-are-significant-but-overlooked>

8. Photos in the HOA Web Portal

A series of photos by Michael Halderman are available on the portal:
<http://understandingthehorn.org/multimedia>



9. Relevant Maps in the HOA Web Portal

This section identifies maps on the Horn of Africa web portal that are relevant to the lesson “Pastoralism – Classic and Current Issues.” The maps are listed below in the same order as under “Maps” on the HOA web portal: <http://understandingthehorn.org/map>.

Maps listed below particularly relevant to the Pastoralism lesson contain information in bold/italic print in the description paragraph. At the beginning of each such listing is either one or two asterisks:

- 1 asterik for a map particularly relevant to the Pastoralism lesson
- 2 asteriks for a map of great relevance to the lesson.

Outline of Physical Map of Africa for lesson plans. Provides an overview of Africa with country boundaries, mountains, Great Rift Valley, some rivers.

Africa, Physical Map. Provides a fairly good overview of all of Africa, including the five countries of the Horn, with their capitals and main cities, highland areas, lowland areas, large rivers and lakes, main roads. (Better than the map listed above, “Outline of Physical Map of Africa for lesson plans”).

* 2007 Somalia Administrative Map with major roads. Provides a good overview of the country with its international boundaries, national capital, cities and towns, main roads and some minor roads, large rivers. This map is on the *geology.com website* that also provides a Google Earth High Resolution Satellite Image of Somalia plus some basic information about the country. (*Useful.*)

* 2007 Kenya Administrative Map with major roads. Provides a good overview of the country with its international boundaries, national capital, provincial boundaries and capitals, cities and towns, main roads and some minor roads, large rivers. This map is on the *geology.com website* that also provides a Google Earth High Resolution Satellite Image of Kenya plus some basic information about the country. (*Useful.*)

* 2007 Ethiopia Administrative Map with major roads. Provides a good overview of the country with its international boundaries, national capital, cities and towns, main roads and some minor roads, large rivers. This map is on the *geology.com website* that also provides a Google Earth High Resolution Satellite Image of Ethiopia plus some basic information about the country. (*Useful.*)

* 2007 Eritrea Administrative Map with major roads. Provides a good overview of the country with its international boundaries, national capital, cities and towns, main roads and some minor roads. This map is on the *geology.com website* that also provides a Google Earth High Resolution Satellite Image of Eritrea plus some basic information about the country. (*Useful.*)

* 2007 Djibouti Administrative Map with major roads. Provides a good overview of the country with its international boundaries, national capital, cities and towns, main roads and some minor roads. This map is on the *geology.com website* that also provides a Google Earth High Resolution Satellite Image of Djibouti plus some basic information about the country. (*Useful.*)

* All Africa Physical Map. The link to the *geology.com website*, provides both an Africa Physical Map and an Africa Political Map.

* 2007 All Africa Administrative Map. This link to the *geology.com website* is to the Africa political map noted above. For the Horn, the political map provides international boundaries, main roads and rivers and national capitals. It also provides a Google Earth High Resolution Satellite Image of the African continent.

** UCLA website: Ethiopia's Political and Land Features. Provides a map with an overview of Ethiopia. Particularly *relevant to Pastoralism*, it shows the southeastern part of Ethiopia that is inhabited by Somali pastoralists as the "Ogaden Desert" in a different color from the rest of the country. The UCLA website provides links to several issues that are briefly described.

2007 Somaliland Border Dispute. Provides a map of the border dispute between Puntland and Somaliland.

** 2012 May Somali - Political Situation Map. This map shows the political divisions in what was once the Republic of Somalia. The map is on a Wikipedia website that is regularly updated; the current version is dated March 2013. The website also provides previous maps showing how the situation has changed since February 2011. Highly *relevant to Pastoralism*, this map also shows the areas of Djibouti, Ethiopia and Kenya where Somalis make up the majority of the population.

** 1992 Somalia Ethnic Groups – Magellan Map. Highly *relevant to pastoralism*. This map shows where the different Somali ethnic groups live in: (a) what was the Republic of Somalia and (b) in the parts of Djibouti, Ethiopia and Kenya where Somalis make up the majority of the population. The map also shows where the Afar pastoralists

live in Djibouti, as well as where non-Somali ethnic groups live in what was the Somali Republic.

1977 Population from Somalia and Djibouti map. This map is dated but shows populations per square mile.

1992 Population from Somalia Summary Map. Provides indications of population densities in what was the Somali Republic.

****** 1977 Ethnic Groups from Somalia and Djibouti Map. Highly *relevant to pastoralism*. Similar to the 1992 Somalia Ethnic Groups - Magellan Map listed above. The 1977 map, however, provides local names of the Somali and non-Somali groups. Both maps show where the different Somali ethnic groups live in: (a) what was the Republic of Somalia and (b) in the parts of Djibouti, Ethiopia and Kenya where Somalis make up the majority of the population. The maps also show where the Afar pastoralists lived in Djibouti, as well as where non-Somali ethnic groups (with their names) lived in what was the Somali Republic.

****** 1992 Ethnic Groups from Somalia Summary Map. *Relevant to pastoralism*. This map provides the Somali clan and subclan names and shows where they live in what was the Somali Republic as well as in the areas of Djibouti, Ethiopia and Kenya where Somalis make up the majority of the population. Statistics are presented showing the proportion of the total Somali population that each major clan group comprises.

***** 1977 Economic Activity from Somalia and Djibouti. Dated but *relevant to pastoralism*, this map shows the very large proportion of land used for grazing and the location of other economic activities.

1977 Area Comparison from Somalia and Djibouti. Useful to understand the size of the land areas covered by Somalia and Djibouti.

***** 1992 Agricultural Land Use and Natural Resources from Somalia Summary Map. Useful map showing the very large extent of grazing land, location of agricultural activities and minerals, fishing areas. Relevant to *pastoralism*.

***** 1992 Somalia Shaded Physical Relief Map. International boundaries, national capital, regions and regional boundaries, railroad, roads, tracks. *Includes the areas inhabited by Somalis* (although not specified) in the other Horn countries.

***** 1988 Somalia Political Map. International boundaries, national capital, regions and regional boundaries, railroad, roads, tracks. *Includes the areas inhabited by Somalis* in the other Horn countries. (Similar information to previous map.)

2002 Somalia Shaded Relief Map. International boundaries, national capital, regions and regional boundaries, railroad, roads, tracks. Includes the areas inhabited by Somalis in the other Horn countries. (Similar information to previous two maps.)

1992 Somalia Political Map. International boundaries, national capital, regions and regional boundaries, railroad, roads, tracks. Includes the areas inhabited by Somalis in the other Horn countries. (Similar information to previous three maps.)

* 1974 Kenya Vegetation and Agriculture Cash Crops from Map No. 501721. Dated but still reasonably valid overview of the country. One can identify the very large areas of the country inhabited by *pastoralists*.

* 1974 Kenya Population from Map No. 501721. Dated, note the date of the census, but still provides a general overview of the population distribution. Important to note the low population densities in areas inhabited by *pastoralists*.

* 1974 Kenya Ethnic Groups from Map No. 501721. Dated but provides a generally valid overview of the ethnic distribution of the Kenya population. It is useful to recognize the patterns of population and land use (in the two previous maps listed above) in the areas occupied by pastoralists.

1974 Kenya Economic Activity from Map No. 501721. Dated but useful map of the location of manufacturing centers and products, mining, and national parks.

1988 Kenya Physical Relief Map. Dated but provides the international boundaries, national capital, provincial boundaries and capitals, railroad lines and main roads.

* 1976 Ethiopia Vegetation from Map No. 503188. Dated but useful map. How has it changed since 1976? Examine this map in regard to the areas inhabited by *pastoralists*.

* 1976 Ethiopia Population from Map No. 503188. Dated but useful. Provides population densities, based on a 1970 atlas, and the names of ethnic groups. Note the situation in *pastoral areas*.

* 1976 Ethiopia Economic Activity from Map No. 503188. Dated but useful. Provides information on the location of economic activities: agriculture, industry, mining and mineral deposits. Note the vast areas identified as used for “*nomadic grazing*.”

1999 Ethiopia Shaded Physical Relief. Provides the international boundaries, national capital, some cities and towns, railroad, roads and tracks for Ethiopia and (all or parts of) neighboring Horn countries.

1999 Eritrea and North Ethiopia Shaded Physical relief Map. Provides international boundaries, national capitals, railroad, roads and tracks.

* 2000 Eritrea and North Ethiopia Shaded Physical Relief Map. Provides international boundaries, national capitals, railroad, roads and tracks. Shows the Denakil Depression other lowlands used by *pastoralists*.

****** 2009 Eritrea and Ethiopia Shaded Physical Relief Map. Very detailed. Provides regional boundaries (Eritrea) and state boundaries (Ethiopia), administrative capitals, primary and secondary roads, tracks, railroad, and selected airfields. Shows the **Danakil Depression** in Afar state.

1991 Djibouti Shaded Physical Relief Map. Provides international and district boundaries, national and district capitals, railroad, roads and tracks.

1990 Ethiopia Shaded Physical Relief Map. Provides the then international and provincial boundaries, national and provincial capitals, railroad, roads and tracks.

1999 Ethiopia Administrative Map. Provides international boundary, national capital, railroad, roads and tracks.

1993 Eritrea Shaded Physical Relief Map. Provides international and provincial boundaries, national and provincial capitals, railroad, roads and tracks. Shows location of Denakil Depression.

1986 Eritrea Administrative Map. Provides the then provincial boundaries and capital, second order administrative boundaries and capitals, major port, railroad.

1991 Djibouti Political Map. Provides international boundary and national capital, district boundaries and capitals, railroad, roads and tracks.

****** 2009 Horn of Africa Physical Relief Map. Provides a **useful overview** of the countries of the Horn, including: national boundaries and capitals, key cities, rivers, elevation shown by different colors, highest mountains, highland areas, Great Rift Valley, Danakil Depression, railways, major roads.

***** 1980 Ethnic Map Horn of Africa. Dated but provides the approximate **area inhabited by Somali people** in Somalia, Djibouti, Ethiopia and Kenya. Some Somali clan names and areas are shown, as well as the names and areas of some ethnic groups in Ethiopia and what is now Eritrea. Areas said to be occupied by the Galla and Danakil (Afar) are shown. Railways, major rivers and lakes are provided.

***** 1972 Physical Relief Map, Horn of Africa. This 1972 map is dated but it provides the approximate **area inhabited by Somali people** in Somalia, Djibouti, Ethiopia and Kenya.

1992 Physical Relief Map of the Horn of Africa. Provides international boundaries, capital cities, other major cities, railroads, roads, large rivers and lakes.

***** Italian Empire 1936-1941. This map shows the provinces and provincial capitals of Italian East Africa after Italy's 1936 annexation of Ethiopia and 1940 invasion and annexation of British Somaliland. The area covered by the Somali Province roughly includes the area occupied by **Somali pastoralists** in Ethiopia.

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