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A Comparative Approach to Transition and Social Change among Livestock Pastoralists in East Africa and Central Asia

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INTRODUCTION

At the beginning of the 21st century, pastoralist populations throughout the world find themselves facing more pressures upon their way of life than at any previous time. While the situation for particular pastoralists varies considerably, many populations in East Africa and Central Asia face similar problems of loss of formerly communal rangelands, increase in urban migration, increased commoditization, and rising economic inequality. There are important differences - in Africa today, many pastoralists face troubling dislocations brought about by drought, famine, and civil war, events not present in Central Asia, although their pastoral populations experienced serious disruptions to their way of life during periods of rapid collectivization and sedentarization under socialist regimes (Humphrey 1983). Nevertheless, livestock pastoralism – the raising of domesticated animals by household groups over large areas of land - continues to offer a regular income and food supply to many populations living in East Africa and Central Asia, owing in no small part to the adaptation of the animals to these pastoral regions.

On first appearance, the pastoral livestock production systems practiced in East Africa are strongly distinctive from those practiced in Central Asia, and a comparison between the two may seem difficult and tenuous. East Africa, by which countries I include broadly Kenya, Tanzania, Uganda, Ethiopia, Eritrea, Sudan, and Somalia, are noted for their highly autonomous and tribally-based pastoralist societies, which are characterized by non-centralized, kinship-based segmentary descent systems, male age-set organizations with strong warrior traditions, economies which are marginal to national and international markets, and a shared political disempowerment, vis-à-vis centralized states administered by people not generally sympathetic to the needs of pastoral peoples (Fratkin 1997, 2004; Simonse and Kurimoto 1998; Spencer 1998).

For Central Asia, I am including those pastoral peoples living in the steppe lands of China, Mongolia, Kazakhstan, and Kyrgyzstan, and the *taiga* forest regions of Russian Siberia. Steppe pastoralists are usually the majority of the population, many of whom were historically organized into centralized and militarized states, most notably the Mongols of the 12th and 13th centuries (Barfield 1989). Siberian pastoralists of the

taiga including Evenkis reindeer herders and hunters lived more isolated lives, but they too came under state rule during the Tsarist times in the 19th century, and Soviet rule in the 20th century (Fondahl, 1998). Like African pastoralists, Central Asian pastoralists lived on the products of their animals – milk, meat, wool, and hides – as well as used these animals for transport and baggage, enabling them to herd their animals over wide areas of otherwise uninhabited lands.

PROBLEMS FACING PASTORALISTS

While life for pastoral populations living in these different regions and under varying political regimes varies considerably, there are several problems shared by these groups:

1) Loss of land and mobility

Pastoralists world-wide have lost grazing lands to competing populations of farmers, other herders, and the growth of urban areas. Some of this loss of land is due to increases in population, caused both by natural increases (reaching 2–3% per year in late 20th century), or immigration of farmers on these marginally productive lands, as in Kenya and China. In addition, some pastoralists have taken up cultivation, leading to conflict with other farmers.

2) Loss of common property

Where livestock among most pastoralists constitutes individual or family property, access to land (for pasture, water, minerals, and security) is usually held in common as a shared resource (i.e. shared by territorial or kinship groups), or as common property open to all. In East Africa, pastoralist regions have undergone privatization of communal lands, following policies encouraged by the World Bank and other donors. While the state has retained control of pasture lands in China and Mongolia, the increasing commercialization of these economies and competition over grazing lands may lead to privatization, as in East Africa.

3) Commoditization of the livestock economy

Pastoralists have traded or exchanged livestock products for grains, tools, clothing, and other commodities with agricultural or urban societies for as long as recorded history. Today, the increased demand and market for meat, milk, wool, and leather have increased commercial production. Many pastoralists have shifted their economy from subsistence to commercial production for sale both to domestic and export markets, although access to markets varies considerably.

4) Economic differentiation and polarization

The increased commoditization of the livestock economy has, in the main, led to a polarization of pastoralists, dividing these formerly egalitarian kin into those with large numbers of livestock, and those without, forcing the impoverished to leave the

pastoral economy. This polarization is occurring through Africa and Asia.

5) Climatic disaster and famine

Livestock herders typically occupy fragile or variable environments that are too dry, too cold, or too hot for agriculture to prevail as a food production system. Herding societies have a variety of methods to deal with climatic stress, including mobility of herds and the raising of mixed types of livestock, but natural disasters periodically kill large numbers of animals and lead to famine and suffering. This occurred during the droughts in Sahelian and East Africa in the early 1970s and mid-1980s, the heavy rains and flooding in East Africa during the *El Niño* of 1997, and in the heavy snowfall (*dzud*) in central Asia in 2000–01.

6) Sedentarization and urban migration

Pastoralists are settling down at a rapid rate to take up farming or be close to urban areas. This process is occurring in response to loss of lands and livestock, but also due to the attraction of new opportunities in marketing and wage-labor. Several studies report negative social and economic consequences of pastoral sedentarization, including poorer nutrition, inadequate housing, and lack of clean drinking water (Fratkin and Roth 2005; Little and Leslie 1999; Hill 1985). But certain benefits also accrue, including increased opportunities in education and improved market conditions, particularly for women (Fratkin and Smith 1995).

7) Tourism

The phenomenon of international tourism is having a pronounced effect on certain pastoralist populations, who are seen as exotic and indigenous representatives of a simpler time gone by. Examples include Maasai and Samburu of Kenya, Mongols and Uigars of Central Asia, Bedouins in Israel and Egypt, and Berbers and Tuareg in Morocco and Algeria. Tourism may bring in direct revenues through the sale of cultural artifacts and or visits to cultural performances, or by governments sharing fees, as among Maasai living near wildlife game parks in East Africa. Although tourism may offer new opportunities in commerce and labor, it may also threaten both cultural values and established social institutions (Brockington 1999; Homewood 1995).

8) Political turmoil and civil war

Ethnic conflict and violence has increased world wide, and pastoralists have not escaped these, despite their isolation. Conflicts in Somalia, Ethiopia, Sudan, Afghanistan, and Iraq have harmed pastoral populations and disrupted local economies (Little 2003). Central Asia faces less turmoil or political violence, but in those countries where pastoral populations form ethnic minorities, they may face discrimination, disempowerment, and impoverishment.

EAST AFRICA: MAASAI AND RENDILLE EXAMPLES

In East Africa, pastoralists occupy large areas of land, but their populations are numerically small and they find themselves politically disempowered and economically marginalized in national polities that are dominated by people from agricultural communities. During colonial rule, many East African pastoralists lost land to settlers, or were prohibited from selling livestock in settler-dominated markets (Spear and Waller 1993). Following independence, both ecological conditions and political relations deteriorated following extensive droughts between 1968 and 1973 in northeast Africa, leading to widespread sedentism of formerly nomadic groups (Fratkin 2001).

The Maasai of southern Kenya and northern Tanzania

In the 19th century, Maasai were “lords of the savanna” (Waller 1985), occupying lands from northern Kenya down the Rift Valley to the Maasai Steppes of northern Tanzania. Never a single political entity, the Maasai are composed of a dozen independent groups living in localized sections (*oloshon*) including the Kisongo of Tanzania, and Purko, Loita, Matapato, and Samburu of Kenya. In 1885, colonial powers cut Maasai land in half between British Kenya and German Tanganyika, while in Kenya; most Maasai were further pushed into areas south of the Mombassa-Uganda railroad in present day Kajiado and Narok Districts (Spear and Waller 1993). Confined to 60% of their pre-colonial range, the Maasai were furthermore restricted from grazing their cattle in the large game reserves created by the British, including the Serengeti Park and Ngorongoro Crater in Tanzania in 1954, and Amboseli and Masai Mara in Kenya (Homewood 1995).

Following independence in the 1960s, the Maasai faced competition for land by poor farmers moving off the highland as Kenyan population growth reached 3.5% per year, due to improved medical care and above-average rainfall. Kajiado’s population grew ten fold between 1948 and 1988, much of it due to migration by Kikuyu farmers onto Maasai lands, who sought to escape the overcrowding of the central highlands. Much of this land has been leased, rented, or sold outright by Maasai owners, who can no longer graze their animals on their former lands (Campbell 1993). In 1968, with support from USAID and the World Bank, Kenya proposed “group ranches” which conferred formal and legal land tenure to a community of co-residents, and which the Maasai accepted as a way of preventing further encroachment on their lands. In the 1980s, again with encouragement from the World Bank and its structural adjustment programs, Kenya titled much of the common land in the semi-arid regions to individual owners, usually in 5–10 hectare plots for small holders to grow maize and market crops. The process of privatizing land in individual hands has led to permanent loss of common grazing lands through sales to non-Maasai and commercial ventures (Galaty 1992).

In Tanzania, more severe policies were carried out under the socialist policy of *ujamaa* villagization, where Maasai *engang*’s (homesteads) were burned, cattle confiscated, and populations forced into “livestock villages” controlling grazing and water resources (Hodgson 2001). Between 1969 and 1979, the United States Agency

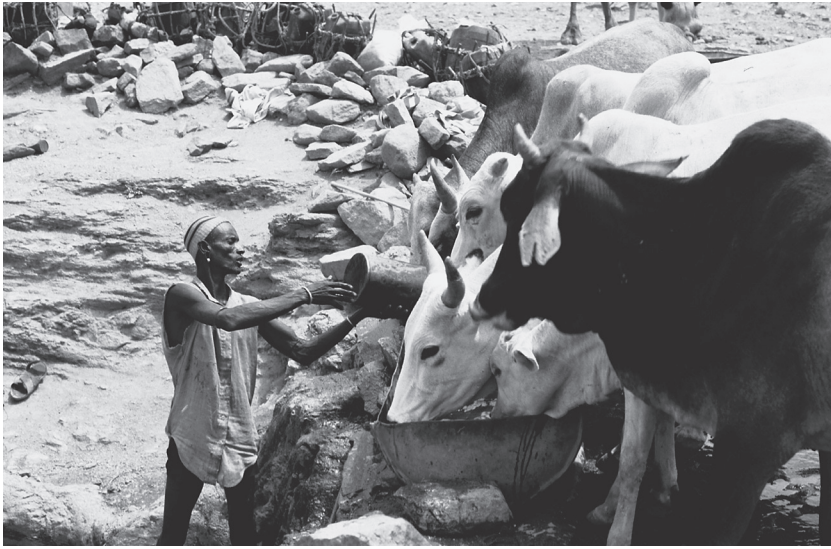


Photo 1 Rendille herder waters his cattle, Kenya

for International Development (USAID) and World Bank funded the Maasai Livestock and Range Management Project, whose \$23 million budget created cattle dips, dams, wells, and roads, designed to increase livestock productivity and encourage the Maasai to sell more animals and beef. The project did not result in any substantial increase in livestock sales, and the water and road development contributed to the large numbers of immigrant farmers as in Kenya. More recently, Maasai lands in both countries have become targets for large-scale commercial ranch and farm enterprises producing commercial wheat and barley. More recently, Maasai in Kajiado District have seen water from Mt. Kilimanjaro diverted to commercial greenhouses growing flowers for the European market.

In addition to losing land to ranchers and farmers, pastoralists have seen their mobility drastically reduced by the expansion of national game parks. Tourist revenues now contribute 45% and 30% to the GDP of Kenya and Tanzania, respectively, and the government influence of international conservation groups rivals that of major corporations and international donors. Maasai agreed to abandon the rich plains of the Serengeti National Park (14,760 km²) in exchange for grazing privileges on the external slopes of the Ngorongoro Conservation Area (8,292 km²), but were prohibited from practicing any cultivation in the area, leading to nutritional declines, particularly of children (McCabe *et al.* 1992). Perhaps of all East African pastoralists, the Maasai are in the most jeopardy of losing their pastoral way of life.

The Rendille of northern Kenya

The situation of pastoralists in northern Kenya is quite different from the more populated regions of the south. Here, the climate is more arid and the terrain rocky and difficult, preventing agriculture on a large scale, and pastoral groups including Turkana,



Photo 2 Ariaal Rendille men prepare to sacrifice an ox, northern Kenya.

Boran, Samburu, Rendille, and Somali occupy large areas of land with herds of camels, cattle, goats and sheep. Marsabit District in north central Kenya receives annual rainfall of less than 250mm in the lowlands and 800mm in the highlands, and is populated mainly by pastoral nomads including Rendille, Ariaal, Boran, and Gabra. The Rendille are a population of 25,000 made up of lowland-dwelling camel and small stock-keepers, and highland cattle-keepers called Ariaal, who are bilingual in Rendille and Samburu. Formerly, the Rendille lived in large semi-nomadic settlements of 50 houses or more, subsisting off their milk camels and trade of their small stock of goats and sheep in the broad desert lowlands below Mt. Marsabit. Camels are kept primarily for milk, as during wet seasons, one camel can provide ten liters of milk daily, and Rendille and Ariaal depend on their livestock for 70% of their wet-season calories (Fratkin 2004; Sato 1980; Spencer 1973).

Under British rule, northern Kenyan pastoralists including Rendille were confined to specific “tribal grazing areas” and prohibited from moving onto other groups’ lands, and the Rendille herding range was reduced from 57,600 km² to 8000 km² (Sobania 1988). Following the droughts of 1968–73, many Rendille settled near small towns and Christian missions, which were distributing famine-relief foods. In addition, about 2000 Rendille migrated to agricultural schemes which were developed on Marsabit Mountain at Nasikakwe and Songa (Smith 1998). Today over half of the Rendille live in or near towns and farms. Many have moved close to towns to escape violence and political insecurity of pastoral neighbors including Boran and Turkana, who have increasingly raided herds with automatic weapons acquired from civil wars in neighboring Ethiopia, Sudan, and Somalia.

From 1975–85, the Rendille became targets of a large multilateral project, UNESCO’s Integrated Project in Arid Lands (IPAL), which emerged from the 1977

Conference on Desertification, and engaged in both scientific research and development efforts. The European donors with IPAL viewed pastoral practices as responsible for overgrazing and land degradation, and implemented projects aimed at reducing herd size by encouraging more livestock marketing. Funded mainly by Germany's GTZ, 1.8 million dollars poured into Marsabit District to create roads, livestock auction sites, wells and pumps, water catchments, and improve veterinary care. Despite these measures, neither Rendille nor Ariaal increased their livestock offtake above ten percent of their herds, which were sold mainly to purchase foods during dry seasons when milk supplies ran low. In 1985, the IPAL project folded and their improvements for livestock production fell into disuse as donors concentrated on improving farming communities in the highlands (Fratkin 1991; Little 1994). Despite their widespread sedentarization, however, Rendille continue to keep large herds of livestock including camels, cattle, goats and sheep, although most of these animals are herded in distant livestock camps (*fora*), far from the main Rendille settlements (Fratkin 2004; Sun, in press).

CENTRAL ASIA

A different situation from that in East Africa has emerged among pastoral societies in Asia, particularly in Mongolia and China. Recent changes including decollectivization of pastoral property and increased market participation have led to transformations in livestock pastoralism, including the revitalization of pre-socialist forms of organization and the reintroduction of private ownership of livestock resources.

Mongolia

Following the collapse of the Soviet bloc in the early 1990s, pastoral collectives were dismantled and formerly state-owned livestock privatized. This, coupled with a loss of former state employment for many residents, led to an initial reassertion of pastoral livestock production in Mongolia's vast pasturelands in the early 1990s. However, by the end of the 1990s, many of these people returned to Ulan Baator and other urban areas, having failed to maintain an adequate standard of living in the pastoral economy. Mongolians who continued livestock herding faced problems of reduced livestock mobility and pasture degradation, due mainly to their desire to live near roads and towns for access to markets and towns.

Mongolia is a vast (1.6 million km²) but under-populated country of 2.2 million people who own 25 million animals. Mongols have historically relied on pastoral production where camels, goats and sheep are herded in the southern Gobi Desert, cattle, yaks and sheep in the northern steppes, and horses throughout their country. Until decollectivization in 1991, half of the Mongolian population lived in the capital of Ulanbaatar and a few other towns while 40% of Mongolians are engaged directly in pastoral production. In the 1980s, pastoralism provided over half of GDP and 40% of total exports. Milk and meat consumption is among the highest in the world (Potkanski 1993).

Mongolia was the world's second communist state following a revolution in 1921,



Photo 3 Mongolian herdsmen breaking in a horse

and while nominally independent, received technical, financial, and ideological support from the Soviet Union. Following a disastrous attempt at forced collectivization in 1929–1931 which was quickly abandoned, communal cooperatives (*negdel*) were encouraged on a voluntary basis in the 1950s. These cooperatives were welcomed by wealthier stock owners who had large labor needs, and where herding households were enabled to pool funds to bore wells, buy haymaking equipment, and build winter shelters for animals. In 1954 there were 198 *negdels* (with 15,400 members and one million livestock), and by 1989, all Mongolian herding households were in collectives. The collectives provided transport for nomadic moves and supplementary feed for winter/spring, cleared snow from pastures, and provided veterinary and specialized animal breeding services. By the 1980s, Mongolia had developed policies more or less unique in the world to provide health and education services to nomadic herders, and achieved virtually universal literacy (Mearns 1996).

Following the collapse of the Soviet Union in 1991, Mongolia underwent significant economic and political reform. The state retreated from direct involvement in production, and prices were freed from previous controls. Following World Bank recommendations to increase privatization, *negdel* cooperatives transformed into joint stock companies, which quickly fragmented into privatized companies and household enterprises. With increases sales of beef and wool to China, the pastoral economy grew. Urban wage-earners, many no longer employed by state bureaucracies or enterprises, moved back to the countryside to join their pastoral families. Whereas in 1990 state collectives owned 68% of all livestock, by 1994 90% of the animals were privately owned (Mearns

1996).

This period saw a renewed strengthening of the *khot ails*, pre-revolutionary herding groups of two to ten households, related by kinship and who act again as a basic social and economic group in Mongolian society. The *khot ail* acts as a social safety-net for poorer rural households, providing forms of mutual assistance and pooling risk between households, including sharing food resources as well as long-term loans of livestock. Mongolians have also developed grass-root organizations (*khoshoo*) which are neither customary nor state-inspired institutions, but marketing cooperatives seeking transport and trade with China and elsewhere (Potkanski 1993).

While pastoral production is firmly in the hands of independent household groups, pastoral land so far has remained open and excluded from private ownership. Of Mongolia's total land, 80% is under pasture, possibly the largest area of common grazing land in the world. A newly developed land law in 1995 set out a broad framework for guaranteeing seasonal pasture rotation according to locally-specific patterns of customary pasture land tenure (PALD 1993; Mearns and Swift 1995). The land law was revised in 2002, in part to permit transferable possession rights over certain types of land, such as that used for urban and peri-urban housing, but the principle of public ownership of pasture land remains unchallenged. It is this continued public ownership of pasture land, combined with private ownership of livestock, that distinguishes Mongolia from Kenya (Fratkin and Mearns 2003).

There have been several problems associated with the rapid decollectivization in Mongolia, including increased wealth differentiation between herding households and



Photo 4 Two Mongolian herders

the inability of poor *khot ails* to support all members. Cooper (1993) notes that while customary institutions are currently supporting weaker members, one might see in the future negative wage-labor relationships with richer households. Templer et al. (1993) argue that without adequate external provision of safety nets, environmental risks will increase for poor households. While there was an increase in offtake and livestock marketing following the 1991 liberalization, current offtake is declining, and the Mongolian government is seeking new ways to develop markets and increase herders' incomes (Edstrom 1993). Between 1993 and 1999, total livestock numbers rose steadily from around 25 million to over 33 million head. Three consecutive years of drought and *dzud* (extremely severe winter weather) over 1999–2002 sharply reduced livestock numbers to historic levels of around 25 million head, with the heaviest costs being borne by the poorer herders, often newcomers to herding (Fratkin and Mearns 2003).

By the late 1990s, several new threats to the sustainability of pastoral production had emerged in addition to those that were foreseen earlier in the decade, all of which manifested in declining livestock mobility (Agriteam-Canada 1997; NSO and World Bank 2001). Rapidly rising inequality in asset holdings between richer and poorer herding households has led to a divergence of interests between rich and poor, and has weakened the observance of norms and customs regarding pasture use. Competition for grazing land has reached endemic proportions in the more accessible and higher potential central steppes, and herders are reluctant to leave their winter-spring camps where they are able to guard those most valued of seasonal pastures. More powerful extended families are better able to 'capture' pastures by maintaining camps in several locations at once, while asset- and labor-poor households are squeezed out and forced to join *khot ails* of richer herders as wage laborers. Many other herding families who would otherwise move to more distant pastures prefer to camp close to district centers, as these are the only potential sources of essential trade commodities and access to the few social services that remain economically viable.

China

Similar processes of decentralization have occurred in the pastoral regions of China. A long-term study of Tibetan and Hui pastoralists of Menyuan Horse Farm in Qinghai Province in NW China was conducted between 1984–1991 (Cincotta *et al.* 1992). After decades of fully-collectivized ownership of agricultural capital, the rights to land and livestock were transferred to producers after 1979 through contractual systems of "household responsibility." By 1984, livestock was divided among individual households, but the former brigade leadership (now constituted as "farm management") was retained for service functions and as economic middlemen. Importantly, summer and autumn pastures are still held in common, without restrictions on grazing numbers, as management expected that livestock numbers would reach a "natural maximum" based on limits of private winter forage.

Farm management receives a fixed amount of sheep wool and meat from each producing household, at less than market value. This "tax" is sold to pay for construction, transportation, meat storage, education, and health and veterinary care for the collective

farm. Any surplus is sold on the market, often for double the prices paid by the farm management. Results of this arrangement have led to increases by 25% of summer herds, most of which are sold before winter. Local pastoralists credit privatization for their herd growth, as it enabled them to fence their summer hay fields (keeping trespassing herds off) and buy hay in the winter (Cincotta *et al.* 1992). A major difference between China and Mongolia is the greater commercialization and infrastructure available to local pastoralists, including manufacture of wool in Chinese pastoral regions (Li *et al.* 1993). China's pastoral regions, the Inner Mongolia Autonomous Region, face large immigration by non-pastoral, agricultural populations, contributing to land degradation and incipient privatization. However, increases in manufacturing, particularly of 'cashmere', has led to an increase in livestock production and veterinary inputs.

CONCLUSION

Problems facing pastoralist populations in East Africa and Central Asia show both commonalities and differences. In both regions, mobile livestock-herding has provided for both domestic subsistence and commercial income, and both illustrate the adaptiveness of pastoral production in arid lands. Both regions are experiencing problems of population growth, sedentarization, competition for land with other pastoralists, farmers, and urban areas, and both face constraints on the traditional mobility and flexibility necessary to survive. Furthermore, both regions are experiencing rapid commercialization of their economies, and increased economic differentiation, including the creation of absentee



Photo 5 Horse and goats grazing, Mongolia

herd-owners and wage-working herders. However, commoditization of the livestock economy, as well as sedentarization and agro-pastoralism, do not seem to threaten livestock production in and of themselves. The growth of farms and towns provide an outlet for population growth in the pastoral areas, as well as a market source for increased livestock offtake, which helps conserve pastoral resources.

While many pastoralists are adopting cultivation and settling in or near towns, many pastoralists continue to subsist off traditional pastoral production of their livestock herds. However, loss of formerly communal lands is seriously affecting the ability of pastoral groups to maintain their former mobility. The greatest impediment to Maasai pastoralism in East Africa is the enclosure, privatization, and fencing of grazing lands which exclude former owners from their traditional lands. This situation may appear in China's western regions, where economic modernization is leading to rapid industrialization, urbanization, and privatization of rangelands. Mongolia's situation is quite different, owing to the small size of its agricultural population and large size of its domestic animal herds. However, current government objectives may not guarantee the protection of grazing resources, equal access to markets, or the provision of social services including education, health care, and veterinary interventions, as in the past under the socialist regime. This may adversely affect the successful continuation of livestock pastoralism as it so far exists in Mongolia.

Pastoral production continues to play an important, if not essential, role in the economies of East African and Central Asian countries, whose dry environments are too marginal for agriculture but well suited to the raising of domestic livestock. It remains a question whether national and international agencies will direct resources to the development of the large productive potential of livestock regions.

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