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“The Cow and The Crown. What African States Can Learn from European and Scandinavian Mismanagement”

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The Cow And The Crown

What African States Can Learn From European And Scandinavian Mismanagement

Anders Hjort af Ornäs

When trying to comprehend today's very dramatic development process for nomadic pastoralists in Africa and the interaction between herdsman and farmers, it might be helpful to widen the perspective and look back to experiences from other situations and other times. I assume that natural resource management and control have been central issues on the European continent as they are in Africa. The purpose of this essay is to single out the important aspect of resource use, at times land tenure, and changes in production focii. It goes back to early European experiences in general, and Scandinavian ones in particular, in order to deal with some aspects of the change from labour extensive livestock herding to intensive systems of livestock rearing and/or symbiosis between pastoral and farming systems.

I do not intend to contribute a proper historical account of the European development, as such. Rather, the essay draws upon history in search of structural comparisons. The approach is considered a-historical by many scholars. However, it fulfils my purpose of seeking inspiration for formulating key issues in similar African processes.

The Scope

The present discussion about some relevant parts of European history concentrates on the complementariness or conflict between farming and herding practices in agrarian society with special reference to resource management. It highlights three historical circumstances, moving from the most general to the more specific.

Firstly, continental Europe developed farming based systems before livestock rearing; herding seems to have been generally regulated by law during the 13th century. Even though we cannot speak about a conflict between two production systems, livestock and farm based, since they have evolved over such a long period of time, we still may note issues where interests do conflict. Land tenure and decisions whether to go for quantity or quality of domestic livestock are topics relevant for the context, and of interest for the current discussion. I do not use the material for a comprehensive analysis, but for an illustration of the issue;¹ that certain decision-points in a development process do have a flavour of universality. The planner of today can learn from experiences of the past. We may say that this section, kept brief indeed, gives more of a topical background than actual information for the current discussion.

Secondly, the Scandinavian countries, particularly Norway and Sweden, with land better suited for pastures than farming in most instances, illustrate a number of the major issues at hand in Africa today; competition or symbiosis between pastoralism and farming, pastoralists against the state over land rights, labour extensive versus intensive herding practices, etc. Locations of villages for instance, prove to be generally geared by the organizational needs of livestock rearing rather than proximity to farm land. Labour extensive pastoral systems were maintained well through the Viking era and into the 17th century. True, variations are great as the discussion will demonstrate, but a number of today's key issues for Africa keep on appe-

aring in the European history of livestock production.

Thirdly, the Saami experience takes the discussion into further detail. The Saami are the only nomadic herders in Europe. Their nomadic career begins as a primarily reindeer hunting and trading community, i.a. in northern Sweden and Norway around the Viking period (approx. 1000 A.D). Reindeers were domesticated and used in labour intensive systems focussing on milk production from small herds during Medieval times. Thereafter, a shift occurred towards labour extensive meat production from large and more nomadic herds during recent times (the last 200-300 years). The Saami experiences are used in this paper primarily to illustrate how relations between nomadic communities and modern Western society have been regulated, for good and for bad. The thesis is that both land tenure and production focus have been forced upon a minority by the society-at-large. Apart from Swedish and Norwegian experiences, those of Saami populations in Finland and the Soviet Union are occasionally drawn upon.

Aspects Of Herd Management And Emerging European States

It seems that the entire European historical herding tradition departs from extensive nomadic systems for livestock rearing. Tacitus (ca. 55-120 A.D.), in his *Germania* (1961), characterizes the Germanic herding practice this way. He compares with those known to his own culture and concludes: "Not even cattle have their natural stout look or their proud horns; it is the number of animals that brings happiness to the people, and the animals are their only and beloved property" (ibid: 36f). And Charles le Grand some 700 years later in his *Caitulare de villis* (art. 23; see Duerst, 1904: 247) is concerned not with the quality of domestic livestock but entirely with quantity.

It seems that the Germanic herders throughout this vast time-span emphasized the number of head rather than food production quantity. This could reflect a practice of

safety first, before a strive for maximum production capacity. One is at least immediately struck by the possibility for finding parallels to the East African cattle complex, so much denounced because it gives emphasis to numbers of head of cattle, and because greed and access to pastures as common property is claimed to be the root of environmental degradation. Such a perspective is also inherent in the German *Lex Salica*, dated around the year 500 A.D. Here a distinction is made between herded and non-herded domestic animals. The latter are considered destructive for pasture quality of the commons.

The labour extensive methods are associated with a general disinterest in upgrading animals. In the very longest time perspective we may even note a decline. Szabo (1970: 29) mentions that the domestic cattle of the Bronze Age were generally smaller than their wild ancestors (he can of course say nothing about production capacity, though). The animals kept in historical times under extensive forms seem to have been multipurpose. The leading principle in Europe was that little labour input could be afforded in livestock. Labour shortage gradually became an acute issue for proper resource management. Thus emerged a change from family herded animals to herding by employed herdsman. Not until more specialized production came in demand was upgrading of livestock to be an issue.

The normal breeding method in old times was natural selection. This was practiced throughout the Medieval times until rather recently. There is reliable source material on horses, but rather little on other species. The most important criteria seem to have been size and colour. Male animals were generally kept together with females, albeit with their sexual organs covered or tied; techniques vary. Upgrading of horses was nothing for peasants, though. They were generally discouraged or forbidden to have horses, and therefore normally used oxen as draught animals. Horses were bred on special sites controlled by the state apparatus; contacts with peasants seem to have been remote.

It is not possible to see any systematic trend for cattle, either. Archaeological materials, of course, demonstrate a highly significant change over the last two millennia.

We also know that the East Gothic king Teoderic in 507 comments on the beautiful Alemannian cattle and requests improvements through cross-breeding of Alpine species (Heyne II, 1901: 66). Generally, good pastures show significantly in both size and health (resistance to diseases) in cattle in Europe.

When special demands were created from Medieval times onwards, the picture altered. (1) The demand for wool from industry, for instance, increased greatly in the 15th century (the New Era). Owners of big estates invested in and upgraded sheep so that wool production more than doubled. (2) Earlier meat producers, such as the Zaupeel sheep, were crossbred with primarily Flemish sheep. The wool production, especially from Germany, improved so that the area turned into a major wool producer during the 16th century. Merino sheep in Spain were exported in the 18th century to both Scandinavia (1723 to Sweden) and the continent (1748 to Prussia); see Szabo *ibid*: 34. (3) An example from cattle production is the specialization in milk production for urban markets. The weaning of the calf then had to be introduced much earlier than before, more labour input became required and production became more intense.

These are three historical cases of specialized expert herders. The earliest known one is perhaps that of the Gaelic herders who were recruited for maintaining the cattle of the Roman Empire. Gaelic slaves were much in demand because of their expertise (Carrier, 1932: 43ff). But European history also hosts other experiences from specialization. The history of sheep rearing is particularly illuminating. The shift from meat to wool production just mentioned, did not involve the peasants at all. Especially the Merino sheep required a different management from that of other sheep; medical treatment, feed and herding techniques. To herd these sheep became the task of specialists; trained herders in wage employment of affluent classes of society. Thus, rural society receives a foreign element in the form of specialized production systems, based on livestock but with a completely new structure.

Such specialized activities were out of the question for the peasant majority. For

them, livestock production was for domestic purposes on customary lands. It is interesting to note, in the context of a commons (where normally several villages had rights to pastures), that this is a foreign notion to Roman Law. Pasture rights rather seem to be a Germanic notion, based on the number of animals which one household could feed on fodder through the winter period (Szabo, *ibid*, quoting Krzymowski, 1961). Clearly the appropriation of resources relates to land tenure rights prior to rights in animals. Sedentism as a lifestyle, as opposed to a nomadic herd-based lifestyle, seems to be part of German tradition.

This land focus shows in the technical problem to calculate the number of animals to be kept through the winter. It was solved with a kind of stock unit system. In the continental legal state systems, farmers were commonly arranged into three or four categories, apart from crofters and farm hands. Pasture rights were ascribed according to category. The number of units always followed the farm, and never the farmer himself. This again underlines the fact that the land, not the herd, was considered to be the prime resource to be managed.

The actual stock units were expressed in terms of mature cattle. The German notion "hirtmässig" (ready for the herd) expressed the point when an animal was considered fully grown. A calf (under the age of either half a year or one year; practices varied) was not included in a farm's quota. Typical units were one head of cattle equals one horse, or two big calves, or four small calves, or four sheep, or eight lambs, or four swine. A commons with surplus carrying capacity could take on strangers' livestock for cash payment. This was later administered through the social institution of the Village Herder.

Priority was given to milking cows in that they had first access to commons and to stubble fields (Szabo, *ibid*: 98f). After them followed the sheep, then gradually other cattle. This sequence was caused by differences in grazing patterns; sheep bite off the grass rather than tear it off as cattle do. Thus pastures would suffice also for sheep immediately after the milk cows. Sheep were also kept further away from homesteads, and not brought home every day.

They would then utilize less valuable land, perhaps stony and sandy. This means that competition with farming did not arise to the same extent as for cattle rearing.

Conflicts over pastures were not regular. The commons were usually located so that livestock from several villages could make use of a mutual tract. This system with one vast pasture area for several villages lasted as long as into the 18th century. It formed a basis for cooperative herd management, at least informally. Szabo (*op.cit.*: 98), quoting Hasemann (1933: 93), gives an example from Germany (the Osnabrück area) of a "jus compascui", a method of joint herding. This reminds us of the "vångalaget" found in Scania in southern Sweden.

A message conveyed by the literature on Middle Europe (cf. Szabo *ibid.*: 108) is that the herding organization found a rather homogeneous form shortly after a reform in the 13th century. Before then, herding was practiced on an individual basis. Each household had rights to make use of a village commons in proportion to the number of domestic animals. At that time the German institution of a Village Herder was generally introduced. He was employed through a compulsory taxation for wage payment by villagers to keep village livestock on the commons. Even if sick and young animals were permitted to move there without a herder, most domestic animals were intensely herded from this time on.

This development connects with changes in farming systems. The relevant pastures during this time were, apart from the commons, meadows, fallow fields and stubble-fields. The meadows were for fodder production for winter periods. The pastures on fallow fields were carefully regulated. These were opened for livestock at Midsummer, on June 24, and the plants to be grazed were predominantly weeds. Also, the use of stubble fields for grazing was carefully regulated. They functioned primarily as emergency pastures in areas with sparse rainfall. Thus, we see how farming and herding are integrated; livestock rearing subordinated to agriculture. The long-term process seems to have been that the importance of meadows (for hay production) and fallow fields increased, so that livestock became more stationary for the

farm. The commons were in places involved in a "fäbod" (chalet) system of a transhumant quality. I return to this in the Scandinavian context below.

Competition between farming and herding practices showed early in Europe. The Germanic tribes described, for instance, by Caesar in *Commentarii de bello gallico* and later by Tacitus in his *Germanica* were commented on for their nomadic lifestyle and wealth in cattle. This situation may have remained during the Merovinger era (approx. 450-750 A.D) but by that time livestock rearing has become very much secondary to farming. This can be seen in German folk laws (Szabo *ibid.*: 45) which favoured farmers to livestock herders. The situation seems to have changed with the establishment of villages and a general shortage of labour for proper herding, apart from the competition between farming for fodder production or for grain. The increased dependence on grain in turn seems to have been a prerequisite for the early urban development on the European continent.

The early development process of continental Europe certainly exhibits similarities to that which occurs in Africa today. Several of the issues just mentioned reoccur in current nomadic pastoral circumstances. The urban development and the impact of the demands from reliable, for a market, grain production, for example, are highly significant in Africa today. The complementarity of farming and herding systems, shown not the least when changes in farming systems bring about changes in livestock herding, are other topics of relevance in that context. The importance of land tenure for natural resource management can be seen in the laws for pasture availability; sedentism becomes a more "modern" lifestyle.

Various cooperative management efforts, and the impact of a villagization policy are also topics which are discussed in African countries today, as are questions about mixed herds and different herding strategies. Multipurpose production of the peasants, being the rural majority, comes to stand against a specialized production system for a growing market, then in Europe and now in Africa. Quality of animals stands against quantity, intensive

Agropastoralism In Scandinavia

Recent historical research on Scandinavian agriculture production tends to give strong emphasis to the interrelationship between farming and livestock rearing. The peasants in Scandinavia have certainly been more multi-active than their colleagues on the European continent. Livestock rearing in the North must consider the long winter periods when the animals must be fed on hay, leaves and other stored fodder. To some extent, comparisons can be made with dry periods under African circumstances.

The very settlement pattern is influenced by the needs of domestic animals. The early patterns in the Nordic countries were based on the single homestead and its need for a balance between meeting farming and herding needs (Szabo, 1970: 43). Farm fields were, in that system, protected from domestic animals with fences. Later-on, villages emerged with a sophisticated pattern for production both of grain and of fodder for the livestock, for winter and summer requirements. The significance of livestock can be seen in the fact that domestic animals were generally used for payment and as a value measurement in barter trade. Szabo (loc.cit) mentions how the early law "Gulatinglagen" (Bergen, Norway, ca. 1250) prescribes that all livestock used in barter trade must be of good quality. In Norway, hides were used for payment. One cattle hide equalled two he-goat skins or four ordinary goat skins. Oxen were means for payment in Denmark as late as well into the 17th century (Christensen, 1886: 45).

Towards the middle of that century, livestock production declined in Sweden. This links historically with the growing poverty of the rural population. At this time the "fäbodsystemet", chalet, with its summer grazing or mountain pasture was established. Thus, livestock were to a significant extent shifted further away from the village and the homestead. The distinction between noblemen and commoners became more articulated with farmsteads with land dues. Payment was, according to law, to be made in grain. Both these major structural changes favoured farming to livestock herding.

forms against extensive, and a stratified society against a non-stratified; all are aspects of change which are also familiar today. The nomadic history with livestock as a major form of property, being the resources to manage rather than pastures, is easy to recognize. Even the current debate about a "tragedy of the commons" was found in the earliest European sources.

But not only general trends exhibit a number of similar patterns. Also, quite detailed techniques such as those associated with breeding or pasture utilization, even the calculation of stock units, occur. Labour shortage as an acute problem was significant then, and it is now. Taken together, the issues for livestock rearing on continental Europe are within certain limits quite similar to those of Africa today. Markets, urbanization, production specialization, and a growing dominance of farming systems brought about a change towards sedentary communities. These are socially and politically stratified, and with a less significant role played by livestock rearing.

This is one of the scenarios also for Africa. True, it is not the only one. I do not want to formulate European development in terms of changing resource management systems. But as far as the discussion goes, it provides a number of interesting illustrations for the African scene; nothing more. Just to indicate major points of dissimilarities in the dynamics: one is the difference in class formation. A major issue is also population growth and industrialization. In Europe, one may by and large claim a certain correlation between the two, while in Africa the population growth has led to an over-population problem both in terms of livestock and people which is different to what Europe experienced.

With this indication of cautiousness not to go too far with the comparison when it comes to an analysis of development and change, it is now time to move into further detail in specific instances in order to seek further experiences of value for comparative purposes. Shifting the focus further north, to the Scandinavian countries, brings further material for discussion. Here more of agropastoral systems prevailed and developed. This was in part due to ecological circumstances, but also economic ones.

This process is interesting in that it signifies an inherent conflict between farming and herding systems. The natural meadows and the commons were no longer sufficient for livestock rearing. The demand for fodder production rather than grain from the farm fields is only one aspect of the conflict. Farming also had to expand into the meadows, thus diminishing pastures. The old saying that meadows are the mother of farm fields, signifying that manure was traditionally collected in the meadows for farming, no longer held true.

The pace in this process increased towards the 18th century in Sweden. The national policy was to give priority to grain production. This was done with extreme vigour. The political stereotype of a farmer at that time was as a grain producer, not a livestock keeper. Prices were regulated, and it became very uneconomical for the peasant not to farm. Campbell (1933: 12) quotes a rural dean, in turn speaking on behalf of the agricultural extension workers of that time, as claiming that it has become ridiculous to hear peasants boast about high returns on grain production at the same time as they worry about hay harvesting; the message of the national policy is to cease with livestock rearing. And he goes on to quote a farmer from Västmanland in Sweden: "It is more useful and pays off better to invest in the farm fields than in the meadows, since the current situation is such that one barrel of grain is enough to purchase butter and tallow of such quantities that would never be economical to produce on this land" (AH's translation from a Swedish quotation in Szabo, 1970: 44, footnote 141).

A concrete expression of the general disinterest in livestock rearing during those years is the fact that the number of related theses at the Royal Swedish Academy of Sciences declined dramatically during the 18th century (Lindroth, 1967: 291). We see a process where the impact on local communities of the state was felt directly, not the least through land tenure and conditions for marketing, such as pricing policy.

The farmer quoted above goes on to claim that as if it was not enough with the negative price relations, it was also a fact that livestock were poorly managed since this was

done by women. This claim contrasts to the situation on the European continent where women were extremely reluctant to work with the domestic animals. Obviously, the cultural tradition of certain divisions of labour is highly significant.

An illustration of a different kind, from Iceland, is given by Hastrup (1983). Here is a case which illustrates how cultural categories of resources influence what actually becomes real resources in people's ways of perception. The Medieval peasants in the south faced starvation due, in part, to the collision between the period for hay harvesting and coastal fishing. In actual fact the agricultural production system changed, becoming seasonally more labour demanding, thus keeping people away from coastal fishing during crucial periods. Fishing was automatically thought of as coastal fishing, which in turn could only be allocated a limited amount of work in order not to cause harm to the farming. In spite of the fact that the boats were suited also for deep sea fishing, it was not until new technology was introduced and deep sea fishing became conceived of as a new production system, that the culturally formed conflict between farming or fishing was resolved in the shape of both farming and fishing, properly arranged in a "symbiotic kind of relationship.

The introduction of structural change "fäbodsystemet" to the north of Norway and Sweden, and land dues further south, the impact of deliberate policy, cultural factors and technological change are all aspects of the development process that altered the relations between farming and herding systems. They are all aspects that occur also in the African context. Generally, tenure is in land and not animals.

Moving into slightly greater detail, we have to look back into history again. The early prehistorical development of pasture lands occurred parallel to that of farm lands. As indicated above one hypothesis is that the original location of villages was geared by the necessary considerations of walking distances to the outlying pasture area rather than of proximity to farm land. Scandinavian villages were obviously grouped so that joint pastures came to be placed in the middle between them. One should, however, not disregard the social factor. Lindqu

ist's (1983) interesting account of the location of clusters of homesteads on Gothland in the Baltic Sea, and hence by implication the church and the shop, goes back to the Bronze Age. At that time there was no land shortage, the climate was milder, farming was more easy in ecological terms than today. The current homesteads, with roots back to this period, are obviously located in clusters based on a socially founded principle of least common walking distance from each other, so that a number of homesteads belong together and seem related. This principle has certainly overruled the needs for short walking distances to farm fields.

A number of special considerations of herding requirements were made. An obvious one is, of course, the localization of the Medieval "stormansgårdar", special breeding stations for an affluent landowning class. These were normally to be found on the fringes of vast pasture areas (Sjöbeck, 1940: 76). Furthermore, salty pastures were utilized seasonally; herds were brought to the coastlines of Sweden in order to graze of *Trigloch in maritimum*. This old tradition is known even today (Szabo, 1970: 66).

The vast forests of Sweden were even more vast before. They played a key role in husbandry practices to an extent which is really not comparable with African circumstances. The forests provided a substantial proportion of pasture land and fodder, and also climatic protection against wind and cold weather. It is even claimed that these functions of the forest were the real causes for the establishment of swidden agriculture in the country. After two or three years' harvests the land could be utilized for good grazing another six or seven years (Isaksson, 1967: 351). This pattern, with minor alterations in cyclical patterns, is found throughout the country.

Trampling and permanent utilization of forests for livestock gradually caused an ecological deterioration. What happened in many areas was that heather expanded where young trees and plants were trampled. This process was clearly evident by the 16th century and onwards. It caused a change in pasture utilization as well as in husbandry strategies. The moors had to be burnt about every five or six years; otherwise the heather became too woody. After

burning, young shoots and annual grasses provided attractive grazing. The change away from sparse forest to moors was also responded to so that more sheep and less cattle were kept (cf. Malmström, 1939: 209).

This process of change was paralleled by another one already accounted for; a concentration on farming and a competition between grain production and fodder production from the same fields. The aggregate result was a decline in livestock rearing during the 18th century. It was, however, followed in the next century by the introduction of a seemingly new system which prevails, or rather maybe prevailed until quite recently. This is the "beteshagssystemet", a mixture of a sparse forest, deciduous wood and meadows. It is considered to be highly significant for the Swedish landscape (cf. Sernander, 1920: 5).

Looking closer at the process, it seems hard to claim that this system was so new after all. The system was found before, albeit less dominantly in Sweden, and also in Iceland (essentially the hay-producing conditions mentioned above) and Norway. These are no longer common pastures, but privatized ones. They had distinct boundaries, normally natural ones, but also at times with fences. The prime aim was no doubt to make more rational use of pastures, introduce an element of pasture land management, and establish the option of keeping different species of domestic animals apart. The old Swedish maps provide a fascinating account of this process of privatization of pasture lands.

Free access to pastures seems to have been a reality only many hundreds of years ago. In historical times one invariably finds detailed regulations of rights to pastures; rights of different kinds but in essence limitations in a free range situation. Since land was not registered until early the 19th century in the outlying tracts, a kind of tragedy of the commons emerged there, especially during the 18th century, with too many heads of livestock being sent off during summer periods for the limited carrying capacity of that land. Official local government reports claim that the decline in livestock numbers following land registration was due primarily to poor herding techniques by the farmers.

From this situation, which seems generally to have been one with private pasture

rights but difficulties in making use of these rights properly, emerged a cooperative kind of system, "lagbildningar". Their roots were to be found in activities similar to the Kenyan traditional "harambee" institution; a group of people, neighbours, getting together for a joint project. In Sweden, too, this occurred in farming. And with a group formed, this also undertook cooperation with livestock herding on outlying pastures.

Without going into the key issues of tenure and ownership, we can conclude about the resource management that a whole set of problems and processes occurred during the Scandinavian development of livestock rearing and the interaction between herding and farming. It seems that the changes revolve around land utilization. Pastures became a scarce resource, facing competition from expanding farming activities. The ecological effects of the development process in the shape of environmental degradation brought secondary effects; changes in land use through shifts to alternative domestic species. The whole process was speeded up by political decisions favouring grain production, not the least through pricing policy.

We must note that the issue was distinctly different from mere ecological adaptation. The adaptive strategies concerned markets, and also social and probably, cultural factors. A social stratification of the rural population became more marked when various forms of specialization occurred. New situations were met with novel or considerably modified production systems. In the pressed situations, cooperative ways developed on a small scale. It leads too far and becomes too specific for my current discussion to go into underlying issues of class formation, stratification and tenure rights.

These are all tendencies which can be noted today in Africa. The more specific issue at hand is how human life in arid lands is shaped and will be shaped in the future. It is far-fetched to make direct comparisons with the European situation: nomadic pastoralism is livestock, not land, centred and represents a lifestyle different from sedentism. Still, some experiences with reference to interactions between a community and the state as well as some general environmental experiences are of a global character.

Nomadic pastoralism on the African continent has been discussed for decades, new forms for production have been suggested, and the many mistakes of past decades have added to the burden to be carried by the peasants. A major conclusion that arises is to build on those production systems already prevalent, seek their weak points, supplementary activities and how they fit into today's context. The history sketched here has given some advice as to where problems are located and how they appear. Its prime importance for the current discussion is to help formulating alternatives. A symbiosis between farming and herding has to be found in such a manner that improvements benefit the common person to a significant extent.

Irrespective of time and context, certain invariant themes emerge. Issues to be considered are: (1) sustainable forms for adaptation to current situations (not just ecology); (2) agropastoralism as a possible symbiosis between farming and herding; (3) organizational matters beyond clan and tribe; (4) Social and cultural requirements of a local population; (5) suitable supplementary activities to existing multipurpose systems.

In the latter case, modified ranching systems come to mind. On this point we may seek inspiration from the Nordic experience. The Saami, who are Europe's only nomadic population, have eked out an existence where the relationships between the pastoral community and the state are arranged and regulated in detail.

Saami Nomadic Pastoralism In Modern Nordic Society

The early Saami history, to the extent that it is connected with the reindeer and can be interpreted through artefacts, goes back to a seasonal hunting kind of existence at least a thousand years ago (Baudou, 1983). From the Viking Era the Medieval times saw intensive reindeer herding giving strong emphasis to milk production. The livestock (reindeer) rearing has then over the past two centuries changed its structure from milk focussed labour intensive production to extensive meat production. At

first glance a circle seems to be closed in that the labour extensive forms become quite similar to hunting (cf. Ingold, 1976 on this matter). A principal difference, however, is the use of modern technology and the penetration by society-at-large of the local nomadic communities.

There are three dominating land use practices in the north which tend to compete; apart from reindeer herding, there is forestry and hydroelectric power production. No real competition with farming is found. The issue throughout history has been the accessibility to seasonal pastures for the domestic reindeer herds. They are kept in a complex transhumant system based on a notion of eight different seasons with specific feeding and herding (in terms of herd sizes and labour input) requirements.

The Saami feel they are at the losing end in the competitive situation. Industrial forestry, rather like irrigation agriculture, hampers movement and ruins seasonal pastures. In both cases, similar "symbiotic solutions" are sought. In Africa, strips of land are left for livestock to pass through farm land to the water of river beds. In the Nordic countries strips of forest are left in clear-fellings in order to help reindeers pass through and find pasture in the form of lichen on the trees in the strip.

One may also find other technical similarities between herding practices among the Saami and African pastoralists. Hjort (1982: 27) pointed briefly at three major fields for comparison; alternative forms for resource use (considering not least seasonal variations), the role of internal factors in various livestock based production systems, and the impact of human population size (the Saami being so few in a Nordic context). In the current discussion, two more aspects need to be elaborated; the actual forms for state intervention and its effects, and the strength and weaknesses of the fact that the Saami make up a very small ethnic minority, not unlike the Indians in North America or the aborigines in Australia. In the latter two issues the presentation shall make use of Beach (1981).

The relations between the Saami population and the Swedish state have been heated as long as can be remembered. State policies have had a profound impact on the lives of the Saami population throughout

history; more so during the latter centuries when contacts have increased and when Swedish settlement has increased within Saami customary territory due to agricultural expansion, mining or forestry. Interpretations of the value of such a process are contradictory. One school, rooted among settlers, holds that the expansion brought social service and modern standards of living to a population in misery, otherwise doomed to further decline. The other perspective, found not the least among proponents of Saami culture, holds that this expansion has had clear racist connotations, that Saami land was taken away from them, and that a colonial system was introduced with no self-government of an ethnic minority, the Saamis.

The official Swedish State policy for relations with, and government of, the Saami population has concentrated on achieving a rational herd management system. The jurisdiction has shifted from an early policy of non-involvement and isolationism to one of integration. Throughout the 19th century and as late as well into the 1920s Swedish attitudes towards Saamis (and Finns) were racial. Parallels were frequently drawn between the Saami and the "Pygmies" of Africa. The Saamis were regarded by many as being underdeveloped, both in economic and racial terms (Beach, 1981: 279). The emerging Saami intellectual class protested, especially since a more or less explicit "social Darwinism" was used as arguments in land right issues. Persons like Stenberg and Solem were among those protesting in the 1920s and 1930s. The land right issue was brought from there to a crucial legal case in the 1960s, the Skattefjäll Case, where the Saamis actually lost their customary land rights to the Swedish state. The conflicting issues were very much the same as found today in Africa's arid and semi-arid lands inhabited by nomadic pastoralists. Pasture lands which have been utilized by the Saami population "since time immemorial" (they are mentioned by Tacitus from the first century AD) became the property of the state; "crown land" rather like "tribal lands" in many African countries during colonial times.

One process lying behind the penetration of the state into Saami society was the fact that Swedish settlers in the north provided

the nation with a new local population well-integrated into the national system as citizens and taxpayers. Thus, the Saami population became less significant and even a small minority over a shortish period of time. The issues of herd management in the area became insignificant for the government in relation to mineral, timber and water energy production. Conflicts over resource use systems arose, and the Saami had to give way to these activities and also to farming during a period of resettlement policy between the two world wars.

What happened was that customary interaction between Saami groups over pasture rights and utilization were all overruled by Swedish law. A major argument for this was the fact that the system meant a fair amount of competition, rather like that between ethnic groups say in northern Kenya over pasture rights. The argumentation was strikingly similar to that of the British colonial administration at that time. One normally failed to see the logic behind the system rather than the local conflicts created by it. Pehrson (1947) and Whitaker (1955) provide two excellent detailed analyses of how flexible and ecologically well-adapted social structures in effect adjust labour availability to herding requirements.

The claims made by the State were also strikingly similar to colonial claims to embark on policies which protected ethnic groups, ascribed them a territory, etc. Again the British policy in northern Kenya provides a good example. Here the strive was to establish districts along ethnic lines, also by means to forced migration of whole groups. The Swedish policy vis-à-vis the Saami population was to strongly emphasize rational (in economic terms) herding practices, being the basis for cultural identity apart from a significant contribution to the Swedish economy. The following quotation (Beach, 1981: 290) from an agricultural parliamentary report illustrates the point: "... it is only to a limited extent possible for the Saamis to keep their language, handicrafts and other cultural expressions alive if herding should cease. Society should therefore contribute, by different methods, to better the conditions for herding rationalization. In so doing, it is of greatest importance that the reindeer-

herders themselves actively take part in the striving for rationalization." (JoU, 1971: 37: 31).

In essence, the policy means that only those who remain as members of the "Saameby" (Saami village) into which they are born and maintain the reindeer herding of the extended family have the right to carry out reindeer herding. Once an individual leaves this lifestyle there is no point of return; he or she is a non-herding Saami. This mechanism of out-migration from a nomadic pastoral community is very deliberate. It could not be practiced in all African countries, at present, to the extent that it requires solid government authority locally, but in theory it would be a possible policy to pursue. The important implication is that of a shift away from ethnic, cultural or minority rights towards occupational rights based on reindeer owning. In this perspective, the case is one of extreme ecological adaptation; it is the reindeers, not the people who are given occupational rights.

The materialist engine behind the policy is that herding should pay off in market terms. When it does not, rationalization has to be applied further. The explicit and official goal is that the Saami herding population should have the same living standard in terms of income level as other Swedes. Svensson (1973: 185) has calculated that a Saami family would require about 500 head of reindeer in order to be on par with the salary of an industrial worker. Another calculation (Handlingsprogram, Rennäringen 1979: 18: 6), instead gives 350 head as the appropriate herd size. Whichever way the calculation is made, the implication is that a fair proportion of the Saami population has to be peeled off and has to migrate to cities or elsewhere in order for the nomadic pastoralism system to function rationally. Beach (1981: 297) illustrates the effect over time for the Saami population as follows.

In the figure, we may observe that the total number of the Swedish Saami population is today only about 10,000 persons. This makes them a small minority, not suitable for direct comparison with nomadic pastoralists in Africa, it may seem. The point to be made is, however, that they have in recent history ceased to form a homogeneous community, be it based on pro-

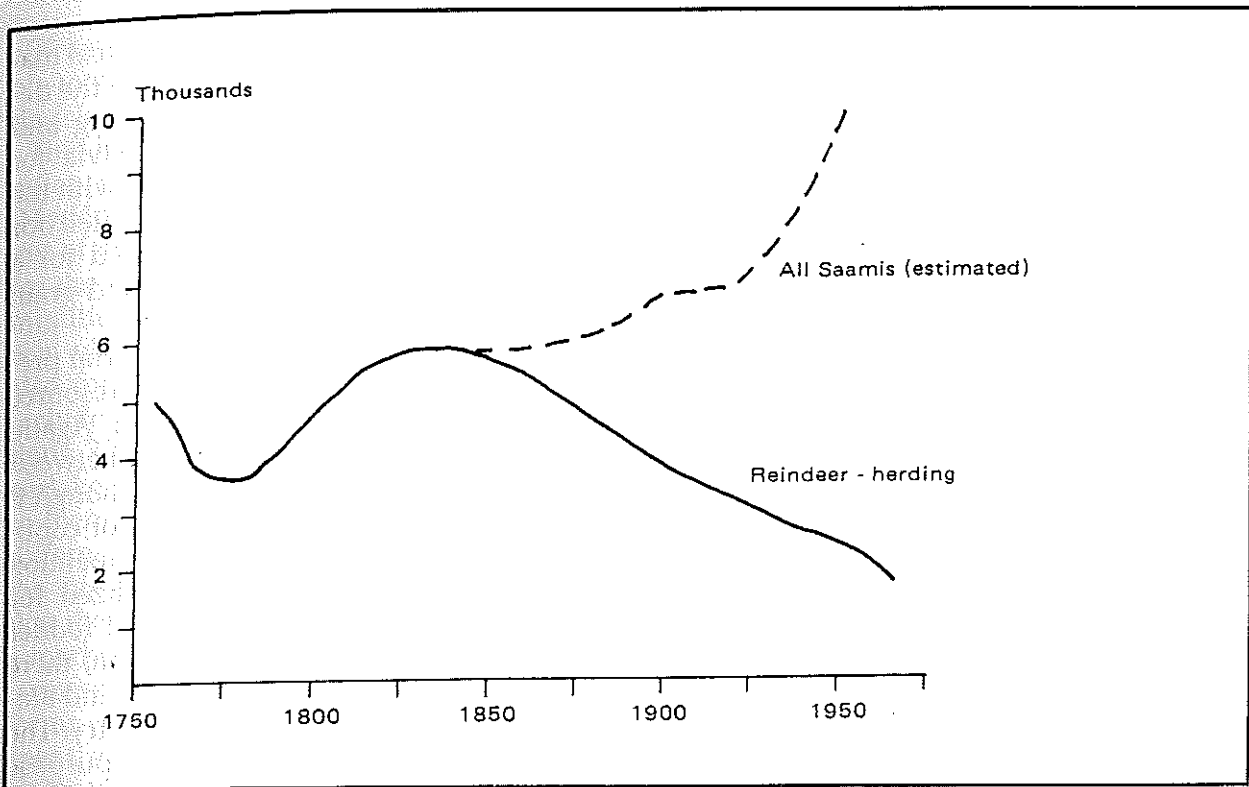


Figure 1. The total Saami population in Sweden 1750-1970 (from Beach, 1981: 297).

duction principles or cultural criteria. Until roughly 1850, all Saamis were pastoralists. Thereafter, the relative number of reindeer herders has decreased. Today, as a matter of fact, the capital city of Sweden, Stockholm, hosts one of the major population concentrations of Saami people. This is a pattern which could be recognized or foreseen for many African situations, albeit with the major difference that in Sweden the migrant will find other employment and does not go to uncertainty, an informal sector, multi-occupational circumstances or something similar reflecting a poverty situation.

Thus, the example leads us to the question of population growth, alternative employment and the role of an industrial revolution. Undoubtedly, there is on this point a significant difference between the European and African experiences.

The Lesson: Issues For Improved Pastoralism In Africa

We have now moved step by step through some of the historical European experiences. The structure of the presentation has

been one of gradually increasing complexity, but also one of showing different paths of development. At the same time we have seen how a number of historically crucial issues remain just that; crucial issues. It is now time to deal with them systematically and indicate some lines for recommendations.

Africa is in crisis. Timberlake (1985) is one proponent of such a perspective, talking from outside Academia and to a wide public. He has also tried to summarize what is, and can be done, in terms of ways out of current situations for nomads. In essence he points at (1) traditional ways of sharing livestock between several individuals; (2) technical improvements such as forage crops, butter churns and live fences; (3) recruitment of extension workers and veterinarians from within the pastoral communities; (4) the relevance of building on traditional forms for cooperation; and (5) the integration of livestock rearing into other resource management systems to formulate a total land-use scheme.

This list maybe is not exhausting the aggregate of recommendations from professionals in the field, but it highlights some of the most fundamental issues. We shall depart from the topics for the interpreta-

tion of the European experiences in their relevant parts.

The section on emergence and decline of European pastoralism above, provides lessons on two levels; one which we would call global, concerning aggregate development processes, and one seemingly local, but having universal traits. This, of course, reflects the way in which the brief presentation is made. The purpose has not been to highlight particular phenomena other than as illustrations of general points.

On the global level, that section demonstrates the impact of an *urban development and of commercial marketing*. Both processes began early. They coincided in that a strong emphasis was placed on *increased grain production*, and on *stratified livestock production* not least for *milk marketing*. Thus, farming gradually came to dominate over livestock rearing, so that a subsidiary system emerged. Under the favourable natural conditions there was no question about a nomadic lifestyle in this situation. An entirely *sedentary production system* further supported the process of urbanization through the development and growth of villages. A locally experienced *labour shortage* further underlined the priority of farming to large-scale livestock rearing. *Population growth* and *industrialization* exhibited a rough interplay so that employment opportunities grew out of an urban situation, not least by means of small towns in a rural/urban interphase.

On the local level, the European scene demonstrates frequent encounters of a *competitive situation over pasture rights* which could possibly be described in terms like a "tragedy of the commons". This label is, however, unfortunate in that it often oversimplifies situations; it is mentioned here since it has had such a heavy impact on the thinking around development processes in arid and semiarid lands in Africa. Through the urbanization and market developments a *socially stratified rural society* emerged, albeit with many different forms. Multipurpose peasant production had to give way to more entrepreneurial forms in spite of the fact that many *traditional cooperative forms* were at one time filled with vitality. A number of herd management issues were brought to the fore, such as *upgrading, quantity or quality in family herds, and intensive versus extensive production focus*.

In the following section, the historical material permits us to move more into the details of interactions between farming and herding systems. It uses Scandinavia for providing the illustrative material, with the argument that that area is less suited for farming and hence better equipped for a combination of livestock rearing and grain production.

The general tendency in the material presented is to give an emphasis to resource utilization issues, particularly land. Again the process is one of competition between grain and livestock production, although it is more complex than in the case of continental Europe. Apart from competition over such tracts that can be utilized for either production, and the issue of fodder production versus grain production, there are in Scandinavia other tracts of land suitable either for pastures or for forestry. The scene is accordingly set for a multipurpose production system, expressed in the old peasant saying "där plogen ej kan gå, där lien ej kan slå, där skall trädet stå" (where the plow is not suitable, where the scythe cannot function, that is where the tree should stand). Nevertheless, no balanced system emerged; no agropastoralism proved itself competitive with the combination of an agroindustrial complex.

This development is not based on natural law. The process is interesting to follow in its global dimension in order to highlight the key factors which brought about the change. Again, *industrialization and urbanization* are obvious factors, along with *overpopulation* in the rural areas (the *outmigration* from certain tracts, often directed to North America, was towards the end of the last century on the magnitude half of the population). On two important points we have here already a difference from the African situation: (1) in Africa there is more of a Westernization process at the consumer's end than a taking over of the production efficiency of industrialization (Mazrui, 1988: 356); (2) the option of emigration to North America is no longer there.

During the process of a shift in focus, the state apparatus was generally strong. Law were enforced, records were kept both of the population and livestock, land and production. *Policy decisions* were implemented. *Markets* were controlled and *pricing policies*

efficient. These instruments made it possible to enforce a *land management policy* after decision-making on a national level.

This is not to say that a phenomenon similar to an *uncaptured peasant* in Africa (Hydén, 1980) could not occur. An "economy of affection" would not be appropriate for the relatively individualized local communities. Of better use would be an approach which looks at social networks useful also for risk spreading, since they would include both individual and group relations. These are included in the list of Timberlake mentioned above; we shall return to them in some detail below. But a major difference from the African situations for the historical situation in Scandinavia is that there was no option to withdraw from a market economy to a significant level for farmers or livestock keepers. Rather the forms would change; more time could be spent, apart on wage earning, on *alternative land use practices*, such as forestry, or hunting.

Two spectacular examples may give food for thought. The economic importance of elk hunting for instance, is tremendous in Sweden, but never shows in statistics since the meat is not for the market. Over 20% of the total national meat consumption is of such meat today (Ekman, 1983: 83). This option certainly is, or has been, available in many African contexts as well. Today's situation, though, seems to be that even this one tends to be exhausted. The other example comes from reindeer herding. The horns of the animal, felled annually, recently became of such major attraction in the Middle East and elsewhere for medical treatment of impotency, that about one fifth of the total income, although not accounted for in official statistics, suddenly was derived from this "side-line" of reindeer herding.

The examples bring us down to the local level. They are seemingly particular if departing from the individual behaviour, but in this aggregated version they are obviously highly significant. The history accounted for in section 3 brings up a number of other more or less local land and herd management phenomena which appear also in African contexts. The issue of *burning* and *bush clearing* is one. The use of *seasonal salty pastures* is another. Migration to

seasonal pastures is yet one. Traditional *cooperative practices* are frequently found both under Scandinavian and African circumstances. *Fodder storage* and *fodder production* are other mutual topics. *Allocation of household labour* is obviously significant in both contexts.

The intention of this article is not to come up with recommendations for the Scandinavian past. Therefore, it has to suffice at present with the current list of mutual topics, by no means complete. The purpose with the section is to provide food for thought for reasoning around the in essence only option available today for African drylands; multipurpose production systems firmly anchored both in farming and in livestock rearing.

It is then relevant first to look at the experiences of the small minority of Saami extraction which practices modern nomadism, meaning a high technological level and a standard of living on par with the ordinary Western European. The Saami *ethnic minority* have to compete in their reindeer herding practices with *other land use systems*, i. e. forestry and hydroelectric energy production. This influences *migration routes* and *pasture availability*. The Saami have recently, in the 1960s, lost their *customary land rights* and have, in the wake of that process, experienced a *cultural revival*. There is in many respects a *conflict* between the herding population and the society-at-large. The reindeer herding is carefully regulated by law, prescribing both rights and duties of that Saami population active in reindeer rearing. A considerable *out-migration from a nomadic lifestyle* prevails.

All these issues are recognizable for the person involved in the problematics of the African drylands. What one should take note of from a global perspective is at least the fact that the national policy of Sweden, while seeking to defend the *human rights* of a small ethnic minority, focuses predominantly on the *management dimension*. The quest for proper material standards leads to an economic thinking which concerns the *production system* and the welfare of (the right number of) reindeers, as many Saami feel it in contrast to their own welfare. A *local perspective* would better place people in the centre of attention.

For the presentation of the entire paper we may conclude that a glance at European

history can be helpful for introducing a global and a comparative dimension to the discussion about key issues for livelihoods in African arid and semiarid lands. Certainly, some issues are scale and time invariant. The comparison then gives some food for thought when formulating future scenarios. We need to penetrate some major aspects of the conditions for human life in arid lands. Obviously, a combination of income generating activities is needed; farming, herding and small-scale industry. A few basic systemic issues must be raised first, e.g. degrees of self-sufficiency in food production and viable combinations of various production systems.

Note

1. I have used Szabo (1970) as a source for historical information.

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