



SOMALIA'S NOMADIC LIVESTOCK ECONOMY

Its response to profitable export opportunity

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Nomadic exploitation of extensive agricultural grazing lands is often regarded as a poverty- and drought-stricken tribal form of subsistence outside, or on the fringe of the monetary economies of modern states to which it often appears to present a problem rather than an asset. To settle the nomads, and thereby change their sociological nature is, therefore, a standard philosophy in development plans of countries in, or bordering on, the geographical zone where traditional nomadic economies exist.

In most of the developing countries the philosophy of settling nomads also has political motivations. Post-colonial state borders tended to follow divisions among tribes according to the suitability of areas for export crops or mineral exploitation while little importance was attached to livestock, the mainstay of the nomadic economy. The nomadic hinterland bordering the cultivated areas was, therefore, often attached to the territorial areas of administrative systems with little regard to the ethnic and cultural identity of nomadic tribal systems. These nomadic hinterlands, as a consequence, now extend across one or several state borders, adding to an unstable situation in many regions. The economic contribution of the nomadic systems to the national economies of such

states is therefore not readily measurable and is mostly underestimated.

It has to be appreciated, however, that any such contribution is really a net value-added item since it originates from land resources that can hardly be exploited in any other way and is produced and marketed with almost no inputs from outside the system. The nomadic economy is remarkably independent of modern commercial input requirements, unlike alternative systems for marginal areas, which are heavily dependent for their exploitation on pump irrigation, fertilization and mechanization. Even the movement of the crop, i.e., the livestock offtake on the hoof, to consumer markets (domestic and abroad) is to a large extent free of purchased transport energy inputs. Thousands of

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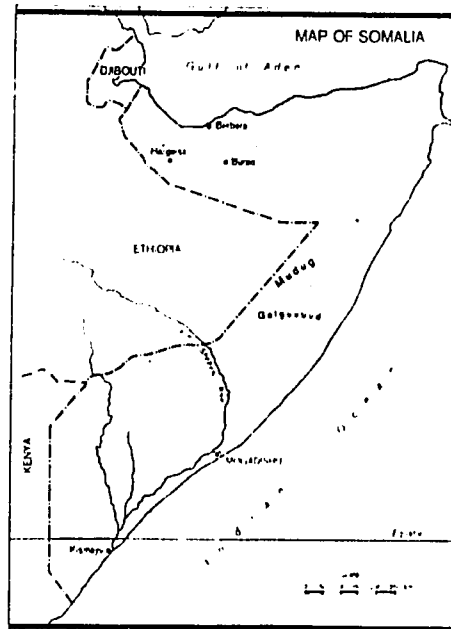


Camels after watering and loaded for trek

trade cattle, for example, walk more than 1 500 km from the western Sudan to Khartoum during the main trekking season without appreciable loss of condition. Of nearly equal length are many treks of trade cattle from nomadic range production areas in the Sahel to gathering points on the northern border of the tsetse belt for subsequent shipment by road and rail to coastal consuming centres such as Lagos and Abidjan, where Sahel beef is the basis of the meat supply.

During the present period of rapidly rising energy costs, which limit the expansion of mechanization, irrigation, chemical fertilization and road transportation, the exploitation of nomadic livestock systems is bound to remain important, or increase in importance.

It is generally known that extensive areas of Somalia and the neighbouring Ogada areas are nomadic rangelands. The war between Somalia and Ethiopia, with its refugee problems accentuated by severe droughts, has given Somalia unusual publicity. However, the emphasis in this publicity has been on the sufferings, and not on the achievements, of the nomadic people involved. In fact, 70 percent of the Somali population is devoted to nomadic pastoralism, contributing 60



percent of the GNP and 80 percent of the value of national exports.

While the long-distance cattle trade in west Africa and the Sudan has received moderate recognition in economic, social and technical surveys, the extraordinary flow of Somalia's nomadic livestock for export to markets on the oil-rich Arabian peninsula, with Jeddah as the dominant receiving port, has found little, and not always

well-informed, publicity. Few readers would know, for example, that the small Somali port of Berbera on the Arabian Gulf was, until very recently, the world's number one livestock shipping point, handling over two million "sheep units" per annum. Three quarters of these "sheep units" consist of sheep and goats, the balance being cattle and camels. (one head of cattle equalling five sheep units and one camel equalling eight sheep units.) It is also interesting to note that approximately half of all the livestock arriving at Jeddah, the world's number one livestock receiving port, are of Somali origin. Many readers might also be surprised to know that until the recent drastic shift in Australian sheep exports from carcass meat to live animals, Somalia was the world's major sheep and goat exporter. Today it follows after Australia and is itself closely followed by Romania and Bulgaria. Even in 1976, one year after a very severe drought, Somali exports at real f.o.b. prices were valued at one-sixth of world livestock exports (US\$ 340 million).

Export markets

Against the background of rising con-

sumer incomes in Arabian markets, there has been active demand over the past decade for Somalia's livestock export surplus and this situation is likely to continue. Prices have been rising steadily, encouraging intensified animal husbandry, fodder production efforts and range water development, mostly on a private basis. This has been accompanied by restraint on the part of producers of their own personal meat consumption. The only two factors hampering the continuous expansion of exports have been shipping facilities, which, in recent years, appear to have been acutely short during peak export seasons, and droughts with their retarding effects on animal growth and fertility and which in severe cases cause heavy losses among flocks and herds.

Somali livestock is in a strong position on Arabian consumer markets, especially those of Saudi Arabia. Until the 1974/75 drought caused a severe set-back in Somalia's sheep/goat and camel production, its share of Saudi imports of these animals was 75 and 90 percent respectively. During the three years following the drought, new suppliers, especially Australia, took the opportunity to fill the gap, while the Sudan, Somalia's main competitor, came back into the market after the Government-imposed export ban (from 1975 to mid-1977) was lifted. Somalia's overall share of Saudi Arabia's livestock imports over the past three years is roughly 30 percent, with a slightly lower percentage in sheep and goats and a higher percentage in cattle and camels. In spite of the reduced market share, this has meant substantial increases in Somali shipments because of the very high growth rate of meat consumption in Saudi Arabia.

Range capacity

Past assessments of Somalia's range capacity appear to have grossly underestimated this vitally important national resource. As far back as 1964, and probably much earlier, experts

first reported the danger, and a little later the apparent fact, of overstocking. Against an estimated livestock population of 1.4 million cattle, 2 million camels and 7 million sheep and goats, the *FAO Somalia Livestock Development Survey Report* of 1964 referred to the "basic problem that so far the industry has been based on expansion of the grazing area". It continued, "This possibility has now been exhausted." Later reports strongly emphasized the "degradation of the rangelands by overgrazing" and the need for "de-stocking", some of these reports drawing on assessments of total available herbage as against the nutritional requirements per animal unit. Such reports were based on livestock population estimates that ranged from 10 to 15 million sheep and goats, 1.8 to 2.5 million cattle and 2.2 to 2.5 million camels.

The 1975 human population and livestock census undertaken in *Jilal* (the height of the dry season), immediately following the severe 1973/75 drought, which caused serious herd and flock losses over large areas of the country, arrived at figures of 25 million sheep and goats, 3.7 million cattle and 5.3 million camels; i.e., roughly 2.5 times the 1964 estimates. It was at the time of the latter estimate that it was pointed out that saturation of the range capacity had been reached. In fact, three years after the census, flocks and herds were examined that were in excellent condition, showing a marked expansion in herd or flock size. Export performance, with the exception of camels, had fully recovered from the drought-induced setback and showed a brisk upward trend while domestic consumption requirements were being met satisfactorily.

Off-take distribution

At the present time, approximately one third of Somalia's total livestock off-take is for export. Of the remainder, half is retained for consumption by the producers and the other half

sold in the domestic markets. The latter comprises stock of lower grade and value, including old and immature animals, the trade routes for them being short compared with those for the export stock.

The direction of Somalia's livestock trade is strongly toward the Burao-Hargeisa-Berbera export triangle. Smaller numbers of stock move toward Bossasso and other minor shipping points on the north coast. The comparative advantage of shipping animals via the northern ports to both Red Sea and Gulf ports, combined with favourable climatic conditions in adjacent holding and staging areas, attract export stock from as far south as the Upper Shebele River area, and even inter-riverine areas of Somalia instead of to the much nearer ports of Mogadishu and Kismayu. The higher trekking expense is compensated for by the better prices paid in the north, on account of lower sea freight rates and the premium paid in export markets (especially Jeddah), for "Berberi" shipments. Major export numbers of stock originate from areas in the Ogaden, especially from the Haud, where large numbers of Somali herds graze during the main export season, September to January.

The domestic market for slaughter animals draws animals mainly from nearby areas, with the exception of Mogadishu, which receives supplementary numbers from the south-eastern part of the Central, the Upper and Lower Shebele and the Inter-River Regions.

Since only male stock is permitted to be exported, the share of male stock in local slaughter is to some extent indicative of the surplus livestock produced over and above local consumption in the area concerned, i.e., the higher the share of male slaughter the lower the surplus. Typically, as reported by the "chief butcher" at Hargeisa, post-drought years see a higher share of male slaughter stock, while in pre-drought years the share is small. Recently this share



Above. Mixed flock and camels near water hole



Left. Goat kids protected in especially prepared zariba

has again decreased to between 10 and 25 percent so far as sheep and goats are concerned.

Organization of marketing

The trader. The livestock marketing organization in Somalia is principally the result of experience and pioneering innovations undertaken by a multitude of actively competing traders over many years who, with few exceptions, have come from pastoral nomadic clans and, as a rule, still own a family share in herds or flocks. At the horizontal level, each appears to be concentrated on his own transactions, with little inclination to cooperate or work with his competitors. Vertically, cooperation appears to be versatile and efficient. As in most tra-

ditionally grown trades, specialization is high. The efficiency of the system is characterized by very small price differentials (other than transport-cost-related) and the widespread dispersion of traders' activities in the buying of surplus stock. Nomads in northeastern Somalia, when asked where they normally sell their animals during the course of their wide-ranging migration, indicated several market places but stressed that there was never a problem since traders came to meet them "everywhere".

Marketing finance. With such a high share of export surplus production and linked to relevant markets through a competitive marketing system, many of the nomadic producers are relatively wealthy. This is shown by their

ability to "finance" traders, in some cases until the final remittance from the foreign importers is received, by permitting deferred payment for the stock they have sold. While no qualifying statement on the frequency and extent of this form of trade financing is readily available, fragmented observations indicate its widespread nature. In the Galguduud and Mudug Regions for example, it was reported common practice for producers to wait several months until the long distance trader, who had collected, staged and trekked the animals to Burao and then sold them on credit to exporters, had received payment from the latter. Because of the essential role of the "grey margin" (the difference between the official Minimum Export Price and the price actually obtained) in exporters' trade calculations, full payment is rarely received until the animals have in fact been re-sold in the foreign wholesale market concerned. The producers' ability to await deferred payment raises the average price that traders are able and willing to pay. To what extent this form of financing prevails in other regions has not been ascertained, but it may be assumed that it forms a substantial portion of that part of the actual c.i.f. cost price of the animal not normally covered by the letter of credit (LC) bank advance; (on average at least 60 percent is financed in this way). It should be explained that LC bank advance is normally given up to 50 percent of the LC value that is usually calculated on the basis of the official export minimum price. To put the scope of the traditional financing transactions in perspective, it should be realized that, during the peak quarter, i.e., the three months' period preceding the Hadj (the period of the annual pilgrimage to Mecca) the private traditional production and marketing system is providing finance for up to approximately Somalios 250 million (US\$40 million), while the banking system is adding another Somalios 100-150 million (US\$16-24 million) to fi-

nance the preparation and transaction of the export of approximately 700 000 sheep units.

Apart from the capacity to wait for deferred payment, many nomads have become holders of deposit accounts with local bank branches. In Burao, for example, total nomad savings were estimated by a local bank manager to constitute nearly one third of total private deposits. Those earnings, however, are kept almost entirely in the form of demand deposits, i.e., they represent, for the time being, surplus cash entrusted to the bank and awaiting further decision on how to spend or invest it. More common still appears to be the entrusting of unspent cash by nomads with established *zouk* (market shop) traders at popular livestock markets, thus contributing to the financing, not only of the livestock trade, but also of the trade in those commodities typically bought by the nomadic producers. The amount of nomad investment (mostly indirectly through urban or rural settled relatives) in shops, houses or, less commonly, trucks, is said to be substantial, although probably less than the financial support of their school-age children lodged with settled relatives or foster parents at places having educational facilities. Finally, the amounts held in cash in nomad camps, formerly the dominant means of saving, might still exceed some of the above-mentioned methods of financing, saving or investment.

The nomadic producer's apparent propensity to finance, by accepting deferred payment, and otherwise to save and invest is an important factor in the efficiency of the livestock production and marketing system in Somalia. It makes him an attractive trade partner and thereby contributes to the prevalence of effective trader services at convenient trading points in the migration and stock route system. It further gives him the capacity to invest in up-grading and enlarging his herd or flock whenever the need or opportunity arises and provides the financial resources desperately needed



Above. Nomad hut in the ogo (highland) of Northeastern Somalia



Right. A municipal livestock market

in periods of herd and flock rehabilitation after severe droughts. Finally, it has anti-inflationary effects. These advantages may well be borne in mind when considering the adoption of purchase against cash as an attraction in Government livestock trading operations in preference to existing local practices.

Livestock movement. The movement of trade stock is principally by trekking. Practically all camels and cattle and the majority of sheep and goats are trekked. Trucking is a common alternative on certain routes for sheep and goats during periods of rapidly rising export demand, especially preceding the Hadj and during dry season periods when trekking becomes haz-

ardous. The costs of trucking are much higher than those of trekking. But, with the current high market value of the animals, a moderate saving on potential weight loss, the avoidance of mortality during late dry season trekking or a narrow gain on c.i.f. value through an *ad hoc* advancement of a shipping date, might more than compensate for the additional trucking expense. Typically, the nearer to the northern export points and consequently the higher the value of the animals, the more common is the use of trucks for animal transport. But, even between the Hargeisa/Burao staging areas and Berbera, trekking would probably dominate if allocation and advice of shipping facilities could be planned and executed in a more

logical manner than has been the case in recent years when this area of activity, in which the Government shipping agency has assumed sole authority, appears to have been beset by hazards.

Trucking is by no means always superior to trekking in regard to the condition of the animals after the journey. During the *Gu* and *Der* seasons of good grazing, animals are reported to gain condition during the trek, suffer hardly any mortality, and usually arrive in good health on account of the gradual adaptation to climate and the grazing in the area of destination. Trucking, however, generally results in some mortality and always in loss of condition as well as sickness and susceptibility to disease resulting from the sudden change of environment. This has been demonstrated in Government transport operations between Galguduud and Burao. In fact, the call for livestock roads, appearing sporadically in sectoral development studies, needs to be critically evaluated. The real need for trucking arises only in the latter part of *Jilal*, the dry season. By then, it is possible for trucks to reach almost everywhere, crossing the sun-baked terrain on a variety of makeshift tracks and following the most convenient routing.

Markets. Livestock markets, i.e., habitual meeting places of potential sellers and buyers of livestock, have established themselves at all places of relative significance. Their location appears to be determined by the presence of major stock route junctions or terminals, major watering points, or major centres of consumption. As in other developing countries, these markets have been legalized and subjected to local tax collection. Market and, far less, slaughter fees provide the main revenue for local administrations.

The basic requirements, so far as market facilities are concerned, appear to be ample space for transactions and the provision of drinking water for

market users. Little justification for investment in fencing, pens, scales or auction rings can be established since the system seems to work well in its present simple, highly flexible form.

Holding/staging operations. All along the stock route, holding, staging and re-conditioning operations take place. Animals collected during poor trekking seasons are put in the care of sedentary pastoralists until good trekking conditions commence. Trade mobs of optimum size are assembled at staging points near major stock routes. If feasible, butchers condition their purchased animals on hay and sorghum for one to three weeks before slaughter. At Hargeisa, for example, a small hay market and a number of *zariba* stock yards (thornbush holding-areas) for 20-40 head of cattle each are attached to the livestock market, serving this kind of operation as well as providing for the assembly of small export mobs by local traders or agents.

Larger export herds and flocks are held on the open range of the highlands (*ogos*) near northern ports, especially in the Hargeisa/Burao area from which Berbera shipments are supplied. In these cases, the stock is sheltered in *zariba* enclosures during the nights and supported during the dry season by hay from commercial fodder units established by local people, until shipment is due. Further and more costly final staging operations, requiring hay to be delivered some 70-150 km, take place at Berbera.

A frequently listed item in national investment programmes for the livestock industry is "holding grounds" for the staging and resting of export animals. However, it appears that in a nomadic range environment where there is ample space and low-cost skilled manpower to herd and tend trade animals, the need of investment in enclosed holding grounds is difficult to establish. The problems of water shortage, maintenance and the utilization of the present Government holding grounds are indicative of this.

Naturally, any organization or individual would appreciate having the right to enclose a piece of rangeland as a privileged dry-season grazing reserve. The resistance of the nomadic population to permanent enclosures has, however, become acutely felt by interested parties and Government rangeland development plans, which in the past have included provisions for enclosed ranches, fodder production units and grazing reserves, are being modified to provide facilities which are independent of permanent enclosures.

Under the present system, trade animals are maintained and staged within the Burao-Hargeisa-Berbera grazing areas, and supported by loosely demarcated private and group-operated seasonal grassland reserves and hay production plots within the framework of the communal open grazing system. This system seems to have considerable potential in coping with the staging requirements of the export trade. Any assistance that can be given in order to raise the efficiency of the present system by increasing water availability, improving transport access to hay production plots, establishing grass trials and seed multiplication schemes, etc., would appear to be most effective when the system is known to be an open one in which the interests of the participating nomadic, transhumant, settled and trading populations are safeguarded by private or communal arrangement between the parties concerned.

Animal health. An efficient, low-cost marketing system depends on effective veterinary care and supervision. Livestock merchants whose trekking and/or staging operations involve prolonged possession of trade herds and flocks, usually carry their own drug and instrument kits and are well acquainted with the symptoms of those diseases common to the environment as well as with the application of prophylactic and curative treatment. They, or their qualified agents, meet trekking stock at predetermined inter-



sections to check the condition of the animals, discuss any problem that might have arisen with the stock drovers, treat sick animals, separate those needing rest and recuperation and lodge them with local pastoralists to be added to a future trek, and supply the drovers with appropriate drugs needed for the next trekking section.

An area under particular threat from animal disease hazards, with high values of trade livestock at stake, would appear to be the Burao-Hargeisa-Berbera triangle zone. This zone, apart from being the centre of dense transhumant and semi-settled livestock rearing activities, carries large numbers of trade herds and flocks in transit from other areas of Somalia.

Since the area seasonally carries export stock of up to 300 000 sheep and goats alone, at a total f.o.b. value of approximately Somalios 150 million (US\$24 million), investment in and

operation of an intensified veterinary control system for the area would appear to be fully justified.

Prices and margins. At present, livestock prices in the privately-organized marketing system in Somalia are high, reflecting the booming demand in the Near East region and especially in Saudi Arabia. Trade margins, including those in the butchery trade, are however narrow.

Observations made during a recent survey in central and northern Somalia confirmed the presence of a low-cost, efficient private marketing system with narrow trade margins. The difference between the rural buying price and the central (urban slaughter or export staging) market price rarely seemed to exceed 10 percent or - - if long distances were involved - - 15 percent, for all types of animals.

Equally low were butchers' margins. Butchers assess animal values on a carcass basis. When looking at an animal, they envisage the amount of meat they will be able to obtain from it. Their carcass weight estimates can be surprisingly accurate. It was difficult in fact to establish a case where a butcher had paid less per kg carcass equivalent on the hoof than what he charged per kg retail, his slaughter and retailing expenses, as well as a very modest trade profit, being covered only by the sale of the by-products (hides/skins and "offals"), which normally yield, of the total slaughter value, about 6 to 9 percent in the case of camels, 9 to 12 percent in the case of cattle and 11 to 14 percent in the case of sheep and goats. In fact, nearing the Hadyj, the butchers' remuneration even appeared to become negative, involving a short period of actual financial losses in order to stay in



Opposite page. *Export flock on trek, near Sheikh, Northern Somalia*

Left. *The "white gold" of Somalia trekking from highland staging zone to Berbera*

Below. *Somali export stock (Blackhead Persian sheep and Galla goats) on trek*



regular business and be compensated later when retail prices tend to follow falling livestock prices, only partly and with a considerable time lag. Caution in not wanting to provoke enforcement of government control prices is also involved in this market behaviour.

Another reason for the obviously low butcher margins is probably the high participation of women in this business. At least as far as central and northern Somalia is concerned, the butchery trade in sheep and goats is nearly exclusively in the hands of women, while their participation in the cattle butchery trade seems to include most activities except the actual killing. As regards camels, the largest share of carcass preparation is still undertaken by women, but the retailing of the meat appears to be done by men. This extensive participation of women is obviously a tradi-

tional practice, stemming from labour distribution within the nomadic family. In southern Somalia, with its increased share of settled population and the reduced importance of sheep and goats, the women's role in the butchery trade appears to be somewhat less pronounced, although their presence on the slaughter floor is still common.

Seasonal price fluctuations are substantial for both livestock and meat, though less erratic and in a narrower range for meat because of the reasons stated above. Peak prices always occur toward the period of the Hadj, preceded by a three-month period of raised price levels, commencing some two to three weeks before the start of Ramadan (which is one month long and is followed by a period of two months and ten days before the Hadj). The Ramadan-Hadj season advances by about ten days each year and at

present falls into the period from mid July to early October. The raised price level during this period is strongly supported and stabilized by the continuous build-up of export trade stocks for the Arabian markets. Lower price levels occur during the three to five weeks following the Hadj, in the latter part of *Jilal* (the dry season, i.e., February-April), and during the hot months of the second and early third quarter of the year when the Kharif winds on the northern coast reduce shipping activities and meat demand for export and the domestic market drops. During the latter part of *Jilal*, prices in rural surplus producing areas are depressed on account of trekking difficulties. During drought-crisis months, i.e., when rains have failed during two preceding "rainy" seasons (*Gu, Der*), *Jilal* prices in the affected areas may drop to the level of salvage value.

Manpower and skills. The Somalia livestock industry has grown entirely out of the private traditional sector. The growth has been a slow and steady one. Already in 1958, official records show the export of approximately 450 000 sheep and goats, 12 000 cattle and 3 000 camels. These numbers have increased about four-fold for sheep and goats, sevenfold for cattle and tenfold for camels over the past 20 years, i.e., at an annual average of 8-16 percent. During the same period, local consumption has grown at about 2.5 percent per annum and marketed supplies for consumption at 3 percent per annum. Assuming that over the period as a whole one quarter of total production was marketed locally and a second quarter was exported, then the total (domestic and export) market volume rose at an annual rate of approximately 6.5 percent and total production at 4.5 percent. Such progress over a 20-year period is remarkable and can only have been achieved with a continuous growth of manpower and skills involved in pastoral production as well as in the trading sector. Since the share of exported animals in total production obviously rose, from about one fifth to about the one third at present (and this, under the export ban on females, means 60 percent of all male off-take), the achievements in the range management and livestock husbandry fields are certainly equal to those in the export trade. They are based on knowledge and care, and both are deeply entrenched in the Somali method of handling animals.

Export operations might be said to start with the meticulous care given to newly-born lambs and kids and to the early selection of young males to be raised to export standards. Young animals prior to weaning are maintained in shaded *zaribas* and suckled twice daily. After weaning of the small flock of lambs and kids the owner leads them into the nearby range where a grazing site is selected with suitable herbage and shelter from the sun before, if possible, the flock

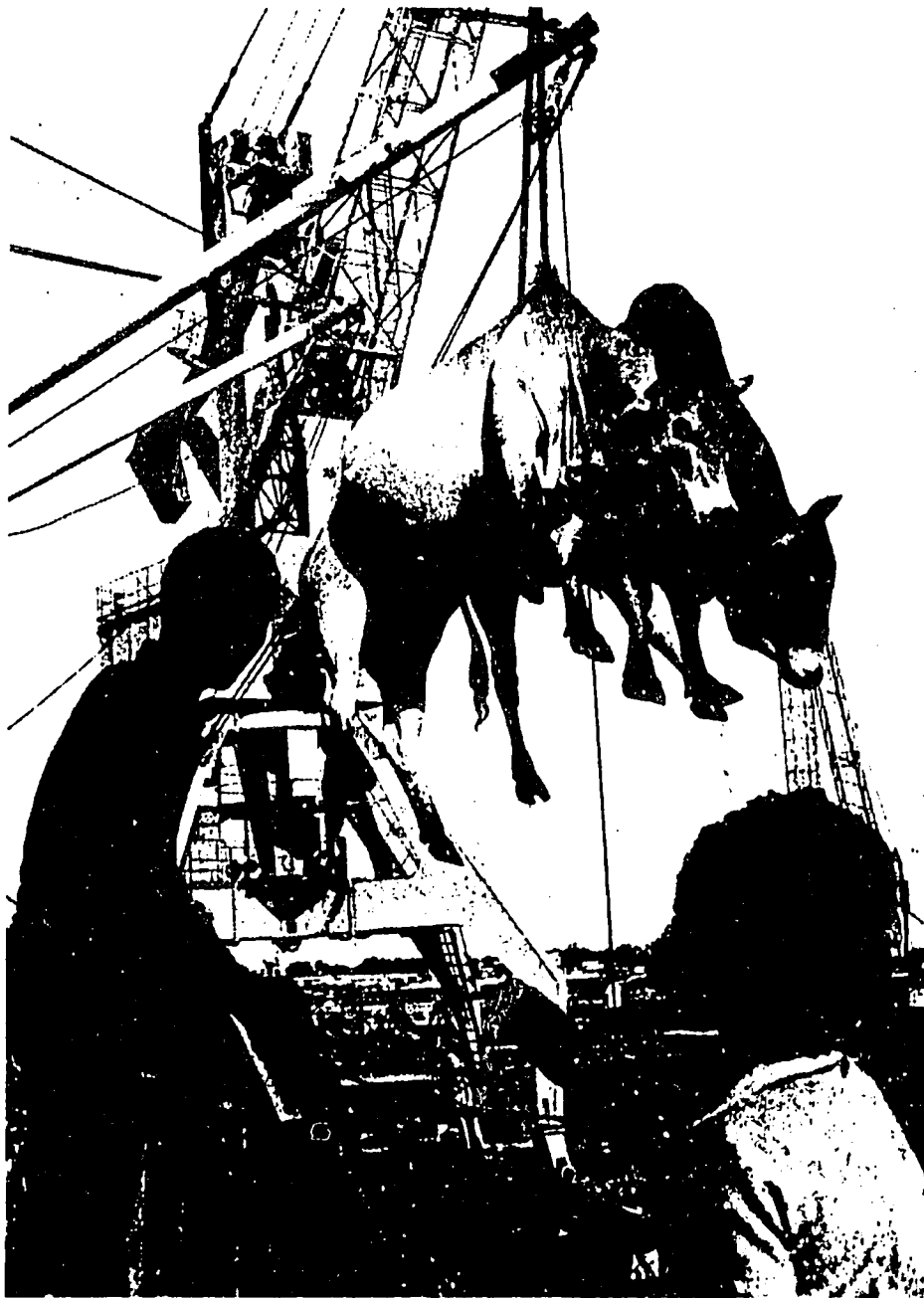


Above. Quayside loading operations at Berbera. (Since 1981, walk-on carriers have been in use, conforming to new Saudi Arabian port regulations.)



Right. Sheep and goats (40 per container) being lowered into hull of Saudi livestock carrier at Berbera

Opposite page. Hoisting export cattle aboard a Saudi Arabian livestock carrier at Berbera



is handed over to the care of children. The animals are regularly checked for tick infestation and, in the case of the very young ones and the young males raised for export, ticks are picked off the animals by hand as often as time permits. Equal attention is given to the general behaviour and to the excreta of the animals, de-worming drugs, if available, being used whenever indicated. At night, all animals are concentrated in the *zaribas* for protection against predators and cold winds, with the herdsmen sleeping on raised bedding in the centre.

Throughout the production and marketing process, the animals' social requirements are respected. Small

groups, formed by the animals themselves within the flock, are sold together whenever possible. Thus, the strain of trek or truck journey, new climatic and grazing environments, vaccinations or dipping, port handling, sea voyage and arrival at foreign shores, is shared among a group of individuals well acquainted with each other and giving a necessary sense of protection. This sense of group protection is probably the main factor in keeping mortality in the trade channel at such very low levels (generally stated as 0.5-1.5 percent). A Somali veterinarian accompanying a shipment of 25 000 Somali sheep and goats to Abu Dhabi on an Australian livestock

carrier informed the writer of the surprise and even disbelief of the Australian captain at the low number of deaths among the animals.

An indispensable factor in the movement and maintenance of trade animals from the point of first sale until slaughter or arrival in export markets is the availability of experienced and loyal herdsmen and drovers at moderate daily wages (Somalios 20 in 1978 – US\$3.20). The number of animals in the trade channels during the peak export period is about 1.5 million sheep units. With herds and flocks averaging about 200 units in size, each under the care of a herdsman or drover, the number of men involved would number some 8 000 to 10 000.

Constraints and achievements

The continuous increase of Somali livestock exports over past years to the unprecedented level of approximately 2.4 million sheep units in 1980 has been achieved despite the adverse effects of the Somali-Ethiopian war (on the production side) and the great increase in Australian live sheep exports to the Near East (on the marketing side).

The effects of the competition from Australian supplies has been aggravated by new port regulations at Jeddah, which subject the short-distance Berbera-Jeddah trade to the same shipping requirements as those applied under Australian export regulations, thereby substantially reducing the former transport cost advantage enjoyed by Somali exports.

The achievement of the Somali livestock export sector under such a complex set of adverse factors is remarkable and unique in the history of world-wide livestock export performance. That it has been achieved by a nomadic system of production and marketing should give additional encouragement to those responsible for the re-evaluation of animal production systems in marginal zones now being carried out. □