

Changes and factors affecting Bedouin movement for grazing

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Synopsis

This paper is an overview of recent changes in the lifestyle, economy and prospects for Saudi Arabia's traditional pastoralists, the Bedouin. Changes are reflected in grazing strategies, labour arrangements, consumption patterns and dependence on motorized transport. The use and importance of barley to the Bedouin culture is reviewed.

Key Points

1. Although most of the rangelands in Saudi Arabia are located in remote areas and are known for their harsh environment and scarce resources, the rangelands play an important part in the national economy.
 2. Many of the traditional Bedouin have now settled, but a large number pursue a nomadic or semi-nomadic lifestyle. This latter group is the largest user of rangelands and the people are best adapted to live there.
 3. Changes in lifestyle, mobility and dependence on motorized transport have affected the way people use the rangelands. In the past, every tribe had its own territory for grazing. In dry times, that particular tribe could move to the territory of another tribe provided that certain conditions were met. Some of these traditional "rules" have been abandoned as pastoralists have come to depend on cheap barley as an alternative to long-distance movements in times of drought.
 4. Barley supplements have become an important factor in Bedouin society, because grazing on Saudi Arabian rangelands, with the exception of some mountainous areas, is limited to the short rainy seasons.
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1. INTRODUCTION

The *badia* (rangelands) are very important to the national economy of Saudi Arabia and to the Bedouin herders, who depend on them for raising their animals. However, the productivity of most natural range areas in the country, with the exception of ranges associated with mountains, is low and is limited to the rainy seasons.

Despite the harsh environment and scarce resources available, Bedouins in the past maintained a flourishing culture based on nomadic pastoralism. At the same time, they conserved the natural vegetation and condition of the range by keeping stocking/grazing at sustainable levels. Among the factors which contributed to this situation were that their herds were mainly camels with

only a small number of sheep, and rangeland access and use was controlled under the *hema* reservation system.

Traditionally, utilization of the vegetation of the drier areas took place under the tribal *hema* system which restricted the timing, frequency and intensity of grazing, and was instrumental in the maintenance of the rangeland (Jaubert and Bocco, 1994; Draz, 1985). Social change has led to a breakdown of tribal structures, and the abandonment of controls on the use of the rangelands (Blench, this volume).

Government policies aimed at increasing meat production have supported the provision of subsidized feedstuffs (barley grain), and, with modern transport facilities, feed and water are now transported to semi-permanent populations of people and livestock in the more remote areas (Leybourne, 1994; Abdulla and Al-Hajooj, 1995). This has led to severe degradation of the vegetation through overgrazing and the use of shrubs for fuel. As in the wetter areas, the reduction in the vegetation has caused more runoff of the sparse surface water and an escalation of soil erosion, by both water and wind, as large areas are laid bare.

Under this communal *hema* system of rangeland conservation, every tribe had its own designated territory for grazing. When dry periods occurred, a tribe was allowed to move to areas assigned to other tribes under specified conditions (a description is beyond the scope of this paper). Although the *hema* system was abolished, providing unlimited access to all grazing areas, many Bedouins still prefer using securely-limited areas such as those that used to be their traditional reservations.

After the unification of Saudi Arabia and the subsequent changes in social, cultural and economic conditions, Bedouin life changed substantially. These pastoralists began raising more sheep to profit from the increasing demand for meat. In addition, the use of trucks to transport animals and water tankers opened up formerly inaccessible areas of the *badia*. These circumstances exacerbated the degradation of grazing lands already devastated by severe periods of drought, which occurred in the 1950s and 1960s. Bedouin herds deteriorated, thus lowering the nomads' living standards. The Government of Saudi Arabia attempted to compensate for the shortage of natural forage by providing barley at subsidized prices; the goal was to assist the Bedouins to rebuild their herds.

This paper reviews the use and importance of barley to the Bedouin culture, and identifies several recent factors affecting the movements of these pastoralists.

2. Use of barley

As noted above, the reliance on barley as a fodder crop has increased and has assumed major importance in sustaining Bedouin livestock production. The provision of subsidized fodder has contributed to a large increase in the livestock population of Saudi Arabia. Without the subsidy, it would be uneconomical for many Bedouins to raise animals. Even with the subsidy, however, the

Bedouin often make use of the open ranges to reduce their feed expenditures, especially poorer nomads for whom the price of barley is still relatively high. This in turn has put heavy pressure on the already deteriorated natural rangelands.

Several techniques are used by the pastoralists to reduce their expenses for purchasing barley. First, they use the *badia* when the forage condition is good. Second, they mostly feed barley to animals designated for sale and to the young or pregnant sheep. The rest of the animals are fed under a system known as *ghob*, in which barley is fed only on alternate days. Usually, the barley is fed at a ratio of one kilogramme (kg) per head daily.

Many Bedouin are only able to afford barley because they have additional sources of income, i.e., they may obtain financial assistance from their capable sons and/or be eligible for Social Security benefits (i.e., for Bedouins over 60 years of age). In addition, they may sell their animals to obtain the needed cash, as well as to reduce the herd size commensurate with the amount of barley they can afford.

3. Factors affecting Bedouin movements

Fully nomadic pastoralists do not grow forage crops, but instead rely upon their native pastures, purchased feed and on seasonal movement of their flocks to areas with higher rainfall. There are several major factors which influence the movements of Bedouins in Saudi Arabia. These include: the preference for traditional pastures; the availability of barley; financial conditions (including herd size); and the enrollment of children in schools.

3.1 Use of traditional pastures

Despite the unimpeded access to open rangelands, many Bedouins elect to remain in their tribal grazing areas when rainfall is adequate. This fact was demonstrated by surveys conducted in 1996. This field-work showed that the Bedouins in Jandaliah and Taisiah were primarily from local tribes. This was because rain had fallen on most of the grazing areas in Saudi Arabia. By contrast, in spring of the previous year (1995), Bedouins from many different tribes flocked to these two areas because the rainfall there was more abundant than in the rest of the country.

3.2 The availability of barley

Although the Government has strongly supported programmes to provide subsidized barley through legal distributors, there has nonetheless been a shortage of barley in the past few years. The local arrangements for the distribution of barley were such that only local Bedouins in each territory were supplied; no outsiders could obtain supplies legally. Consequently, many Bedouins grazed their animals in good pasture areas temporarily, after which they would return to their traditional grazing areas to be eligible for obtaining the subsidized barley.

3.3 Financial conditions and herd size

Herders who own 250 heads or more of sheep are able to sell some of their animals to purchase barley, small trucks and other items, without significantly affecting the size or productivity of their herd. Thus, they are much better off than herders with smaller flocks. These well-off Bedouins usually confine their herd's grazing movements to traditional areas for most of the year; they can afford to supplement natural pasture with purchased fodder. However, based on data collected from personal interviews, the majority of Bedouin herders own herds of fewer than 150 heads. This group often spends some time outside of their traditional pastures in order to be less dependent on barley, which (as noted above) is relatively expensive and often difficult to obtain.

3.4 Education of Children

Enrolling children in school necessarily limits the movement of Bedouin families, and is considered a hindrance to moving herds long distances from traditional areas. The choice of whether to send children to school is largely based on economics. Aging Bedouins, as well as those who have large herds of sheep, generally pay less attention to the education of their children because they need their help in raising the herd. Pastoralism is only economically viable for those who own large herds. Thus, the majority of Bedouins who have herds of less than 150 heads are eager to educate their children in the hopes of finding an alternative to nomadic desert life.

Another economic motive for Bedouins to send their children to school is Social Security benefits. These benefits are linked to the education of children: the amount of money received depends on the number of children in the family and documented proof of enrolling boys in school.

4. Summary

Despite the scarcity of resources in the *badia*, the Bedouin continue living in their rural areas, raising animals partly on purchased barley. Without the economic subsidies which they receive (from government feed subsidies, the Social Security fund and the remittances provided by their children), it is unclear whether this traditional nomadic culture would be viable.

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