



# Characteristics of Some Camel (*Camelus dromedarius*) Production Traits and Constraints in The Butana Area, Sudan



**Agab H**

College of Veterinary Medicine and Animal Production, Sudan University of Science and Technology  
PO Box 204, Khartoum North, Sudan. Email: [hamidagab@hotmail.com](mailto:hamidagab@hotmail.com)

## INTRODUCTION

Camels are the most capable animal species in utilizing marginal areas and in survival and production under harsh environmental conditions

In eastern Sudan camels are raised mainly in Butana region and Red Sea Coast

In the former, the camel population was estimated to be around 750,000 head, representing around 25% of total Sudan camel herd population

## OBJECTIVES

- To present data on the current status of nomadism among dromedary camel herders in Butana region.
- To detail some aspects of the socioeconomics of pastoral camel husbandry in the area, particularly regarding sources of income and total income and expenditure among dromedary herders in Butana region.
- To present information on the indigenous knowledge and practices of camel herders in the study area.



Manual and hand supplying of water to the camels during the dry season in Butana indicating the difficulty and shortage of water supplies



Pulling water from deep well is indicating difficulty of securing drinking water during the summer season in Butana area

## Status of nomadism among camel herders in Butana region

Status of families	Year		
	1984	1994	2003
Nomadic families	153(73.3%)	69(33.0%)	46(22.0%)
Semi-nomadic families	21(10.0%)	103(49.3%)	73(34.9%)
Settled families	35(16.7%)	37(17.7%)	90(43.1%)

## MATERIALS AND METHODS

Butana area is a semi-arid clay region lies in the north-eastern Sudan.

It is crossed by many seasonal rivers as well as small temporary seasonal valleys running through these plains during the rainy season.

The annual rain fall in the Butana region is highly variable; however, it averages 200 mm/year.

Water resources in the region are considered as very limited. Rainfall is the most important climatic factor because people and their livestock depend on this factor which supports the growth of the vegetation for their animals.

The Butana area is inhabited by transhumant camel-owning tribes in it's northern part while it is populated by agro-pastoralists who practice mainly mechanized rain-fed agricultural activities for production of sorghum and sesame grains besides considerable livestock raising activities in it's southern part.

A comprehensive questionnaire was designed and implemented covering all aspects of the study parameters (Herders and households of 209 camel herds were interviewed).

## RESULTS

The most known camel preferred forage plants were rarely found during the study while several new non-palatable forage plants were frequently encountered in the study area. This constituted real disturbing practices and formed important environmental and ecological threat in the natural camel breeding areas in Eastern Sudan.

The current situation of nomadism among camel herders in Butana area was sharply declining when compared to the situation during the last two decades giving way to settlement as a new emerging mode of camel husbandry.

This decline was accompanied by increase in the percentage of camel herders practicing semi-nomadic production system from 10% through 49.3% to 34.9% while the settled camel herders changed in percentage from 16.7% through 17.7% to 43.1%, respectively, for the same period.

The deficit between expenditure and income recorded in all camel-keeping tribes in Butana, except the *Bawadra*, is a good indicator that the traditional and pure nomadic mode of camel husbandry practice has to be shifted to agropastoralism in order to utilize the crop by-products of sorghum cultivation for camel feeding and to avoid the other drawbacks and limitations of the classical migratory system of camel husbandry in Butana region.

Sources of income for different camel herding tribes in Butana

Tribe	Dependence on camel rearing (%)	Other sources of income (%)
Kawahla	98.9	1.1 (Crop cultivation + small animal herding)
Bawadra	32.8	67.2 (Crop cultivation)
Bija	98.8	1.2 (Crop cultivation)
Doweihiyin	85.9	14.1 (Crop cultivation + sheep herding)
Rashaida	95.3	4.7 (Trade + small animal herding)
Lahawiyin	73.4	26.6 (Crop cultivation + small animal herding)



Nomads mobile schools. Note a camel carrying a school blackboard



Availability of natural pasture in Butana plains at the end of the rainy season, but herders had to quit soon due to shortage of drinking water

Age and level of education among camel herders in Butana region, Sudan

Age group (years)	No. of herders	%	Level of education			
			Illiterate	Khalwa* education	Primary education	Secondary education
15-30	23	11.0	47.8	4.3	43.5	4.3
31-49	93	44.5	67.7	12.9	15.1	4.3
>50	93	44.5	67.7	17.2	10.8	4.3
Total	209	100				



Availability of rain water in Butana plains during the rainy season



A traditional or ethno-veterinary practice (cauterization) is an indicator of the great need of camel pastoralists in Butana plains to modern veterinary approaches