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## CURRENT STATUS OF ZANGE GRAZING RESERVE, REARERS PERPECTIVES

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### ABSTRACT

The study was conducted to assess Reserve utilization, production constraints of pastoralists (settlers), Animal inventory and level of monitory and evaluation in the Zange grazing reserve of Gombe State (latitude 10<sup>0</sup> 28' to 12<sup>0</sup> 49'N and longitude 10<sup>0</sup> 05' to 12<sup>0</sup> 06' E). A total of 202 permanent house hold (and their assistance/apprentices) were interviewed in the reserve with aid of Questionnaires aspects covered include Animal inventory, level of monitory and evaluation, grazing time, production constraints. Results revealed that 50% of herders were permanent users of the reserve with daily grazing duration of 4 to 9 hrs. No single grazing reserve was found to be satisfactory in availability of feed resources, the problem encounter include lack of adequate forages for grazing and water supply for human and Livestock, Disease and pest. The result further revealed that there was not high record of monitory and evaluation 85%. The form of assistances required by the herders from government are improved of herbage mass increase in the reserve, increase in number of watering point and stoppage of encroachment on to the grazing area by the arable crop farmers. From the result obtained it is concluded that the settlers has a lot of problems, It is therefore recommended the reserve to be reseeded with high yielding forage grasses and legumes, provision of social amenities to curtail movement pastoralist (settlers) out of the reserve.

**Keywords:** *Grazing reserve, Production Constraints, pastoralist*

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### INTRODUCTION

Livestock production in Nigeria is characteristically extensive (Gefu 1982, Ademosum, 1988). The vegetation of Wawa Zange grazing reserve having a total hectare of 35,000 ha had great potential for sustained livestock production. In recent times, this potential has been threatened by encroachments, which have reduced the carrying capacity of the reserve. Consequently, the quantity and quality of fodder available to the increasing animal population has declined. The problem of feed scarcity necessitated the practice of nomadic system of animal production. But increases in human population, industrialization, damming, and irrigation activities are perfectly decreasing grazing areas. (Kallah and Muhammad, 2012). One of the options is development of grazing reserve. Most of the pastoralist depend mainly on the natural feed resources for their animals. The system is inherently less beneficial to animal production because, both nomadic and transhumance are perceived to be a natural

response to the problems posed by inadequate grazing resources and water for livestock especially during the dry spell of the year, as well as the disease build up in the locations of the nomadic community. Such transhumance or Nomadic may be within or between agro-ecological zones in search of fodder and water and avoidance of diseases (Bello, 2008; Kallah and Muhammad, 2012). The savanna zone of West Africa is a suitable environment for livestock production but the low yields of the indigenous fodder species from native rangelands and seasonal bush fires make year round fodder availability one of the factors limiting livestock production. The situation is more pronounced during the late dry season and the early part of the rainy season (Muhammad *et al* 2005). It is evident that the nomadic methods of cattle management practiced in the region are no more feasible as the sole management practices to meet the growing demand for animal protein and by-products.

It is therefore important to assess livestock production potential of our range herds as it relates to the provision of qualitative and quantitative grazable resources (Kallah and Muhammad, 2012).

#### MATERIAL AND METHOD

The study was conducted at Zange part of Wawa Zange Grazing Reserve in Dukku local Govt Area of Gombe State having a total hectare of 35,000 ha. The grazing reserve lies on latitude 10° 28' to 12° 49'N and longitude 10° 05' to 12° 06'E. (Okereke *et al.* 1985). Two hundred and two (202) permanent household were interviewed with aid of a Structural Questionnaires, the questionnaires captured information on level of monitoring and evaluation activities, Production constraints, Reserve

Utilization by the herders. Mean, percentage and range were used for describing the collected data.

#### RESULT

##### Status of utilization of Zange grazing reserve by herders

The status of utilization of grazing reserve by herders is presented in Table 1. Results obtained indicated variable uses from permanent (50%) to Transient (23%). Irrespective of nature of utilization, daily grazing duration ranged from 4 hrs (2.5%) to 9 hrs (80%). Fifty percent (50%) of herders use other grazing reserves, from two (71.42%) to four (4.76%), No single grazing reserve was found to be satisfactory in availability of feed resources.

Table 1. Status of utilization of Zange grazing reserve by herders

Nature of utilization	Frequency	%
Permanent	20	50.0
Seasonal	11	27.5
Transient	9.0	22.5
<b>Grazing duration (hour)</b>		
4-5	1.0	2.5
6-7	7.0	17.5
8-9	32	80
<b>Use of other grazing reserves</b>		
Use others	20	50
Don't use others	20	50
<b>No. of other grazing reserves used</b>		
Two	15*	71.42
Three	5.0	23.3
Four	1.0	4.76
<b>Condition of Grazing reserve</b>		
Satisfactory	0.0	0.0
Not satisfactory	40	100

\*Only returned question captured

#### Major problems at Zange grazing reserve

The major challenges at Zange grazing reserve were grouped into Natural, Technical and Socio cultural and presented in Table (2) the survey revealed that Disease and Pest (75.47 %) ranked the highest in the reserve while Flood ranked the least. Other features included drought, erosion and bush burning. Technical problems examined included Lack of water supply (18.09%) which

ranked the highest as a problem in the reserve then followed by veterinary services, lack of adequate forages grazing and supplementary feed each rated (17.64%) then lack of School had the least with (0.45%). Socio cultural problem involving lack of access road was ranked the highest (24.22 %) and Market out let had the least with (0.62%). Security (personnel and livestock), stock route grazing right and land cultivation were moderate challenges.

Table (2) Prepondunce of Major problems at Zange grazing reserve

Variable	Frequency	%
<b>Natural problems</b>		
Drought	1.0**	1.90
Disease and pest	40	75.47
Bush burning	10	18.87
Erosion	2.0	3.77
Flood	0.0	0.0
<b>Technical problems</b>		
Veterinary service	39**	17.64
Health	37	16.64
Water supply	40	18.09
Adequate grazing	39	17.64
Extension services	26	11.76
Lack of School	1.0	0.45
Supplementary feed	39	17.64
<b>Socio cultural problems</b>		
Market	1.0**	0.62
Access road	39	24.22
Personnel security	24	14.90
Livestock security	36	22.36
Stock route	20	12.42
Grazing right	19	11.80
Land cultivate	22	13.66

\*\* This is due multiple response

#### Monitory and Evaluation at Zange grazing reserve

Table (3) revealed the level of monitory and evaluation activities at Zange grazing reserve there was no high record of monitory (85.0%) relative to monitory and evaluation (2.50%), fifty percent (50%) of the herders agree that

there it was seasonally done; while fifty percent (50%) agree that was done in early rains and late dry season. The major sources of grazing reserve encroachments were crop farmers and fire wood Vendor (31.49%) each and the least (16.53%) was obtained from grazers.

Table (3) Monitory and Evaluation at Zange grazing reserve

Variable	Frequency	%
<b>Monitory and evaluation</b>		
Done	1.0	2.50
Partially done	5.0	12.50
Not done	34	85.0
<b>If Done</b>		
Seasonal	3.0*	50.0
Annual	2.0	33.33
2-3 yr	0.0	0.0
3-5yr	1.0	16.66
Above 5yr	0.0	0.0

*Table 3 Continue*

Variable	Frequency	%
<b>If seasonal</b>		
Early rains	3.0*	50.00
Mid rains	0.0	0.0
Late rains	0.0	0.0
Early dry	0.0	0.0
Late dry	3.0	50.00
<b>Sources of Encroachments</b>		
Crop farmer	40**	31.49
Grazer	21	16.53
Business land buyers	26	20.47
Fire wood	40	31.49

\*\* This is due multiple response

\*Only return question captured

**Animal Inventory at Wawa Zange grazing reserve**

Table (4) Show the animal inventory at Wet and Dry season. The herders interviewed reported the present of Cattle, Sheep and Goat at wet season is higher (97.50%) each. similarly in the

dry season Cattle and sheep were reported to be few by the responders with (97.40%). But In term of Goat at dry season they were reported to be Very abundant by the responders with (86.84%).

**Table (4) Animal Inventory at Wawa Zange grazing reserve**

Variables	Frequency	%
<b>Animal inventory</b>		
<b>Cattle</b>		
Very abundant	39	97.50
Abundant	1.0	2.50
Few	0.0	0.0
<b>Sheep</b>		
Very abundant	39	97.50
Abundant	1.0	2.50
Few	0.0	0.0
<b>Goats</b>		
Very abundant	39	97.50
Abundant	1.0	2.50
<b>Dry season</b>		
<b>Cattle</b>		
Very abundant	0.0*	0.0
Abundant	1.0	2.56
Few	38	97.40
<b>Sheep</b>		
Very abundant	0.0*	0.0
Abundant	1.0	2.56
Few	38	97.40
<b>Goats</b>		
Very abundant	38**	86.84
Abundant	5.0	13.16
Few	0.0	0.0

\*\* This is due multiple responses \*Only return question capture

## Discussion

The concept of grazing reserve is to provide adequate feed resources, Technical services, and Social amenities to curtail the movement out the grazing reserve, the result of present study revealed that the Zange grazing reserve only provided for (50%) of the permanent herders, while seasonal and transient users account for the balance of the (50%). The major courses of unsatisfaction were mainly problems of Natural, Technical, Socio cultural origin, there was no good veterinary service to managed diseases and pest also water supply for both human and livestock was a serious challenge, while access road to market, grazing site and watering point were being encroached in the grazing reserve. This finding is in agreement with the report by (Malami 1996, Bello, 2008; Kallah and Muhammad, 2012). Regular monitory and evaluation is support to update record of problems and suggestion of the well being of the grazing reserve, unfortunately there is hardly Done and if done is only seasonally during Early rains and Late dry season The result obtained show 32% of the grazing reserve has being encroached by arable crop farmers with

corresponding 32% encroached by deforestation. The major animal species were Cattle, Sheep, Goat each of these species is very abundant in wet season while few are present dry season with exception of Goat that occur very abundant in dry season ,the variation in the population due to season could explain the movement of herder to utilization of other grazing reserve. This confirms the finding of (Bello, 2008; Kallah and Muhammad, 2012). Who reported that such transhumance or Nomadism may be within or between agro-ecological zones in search of fodder and water and avoidance of diseases?

## Conclusion and recommendation

The study revealed that ruminant livestock in Zange grazing reserve are critically faced by the shortage of dry season feed resources. This is mainly manifested in both the quantity and quality of the herbaceous forage resources available during that period of the year. The form of assistances required by the herders from Government are improvement of grazing reserve, watering point and enhanced of livestock input (veterinary drugs, supplementary feed and stoppage of encroachments by arable farmer.

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