

# Traditional knowledge about local breeds of cattle across generations of Fulbe pastoralists around the W Biosphere Reserve in Benin



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## Objectives

- To describe the traditional knowledge about important characteristics of cattle breeds
- To compare this knowledge among different generations
- To identify the best breed as perceived by Fulbe pastoralists

## Background

- Local breeds of cattle are essential for the livelihoods of pastoralists worldwide
- Traditional knowledge is important for the improvement of local breeds of cattle
- There is a growing concern about loss of traditional knowledge of local breeds of cattle in West Africa

## Results

- Gudali breed scores the best in productive characteristics but not in none-productive characteristics (table 1)
- Keteeki scores the least in productive characteristics and almost the best in non-productive characteristics (table 2)
- Bodeeji scores the best (after Gudali) in productive characteristics and it scores the best in walking (result not shown in table)
- Tchiwali and Jaliji are intermediate in productive and non productive characteristics (result not shown in table)

**Table 1.** Characteristics of Gudali breed mentioned by three generations of pastoralists (n)

characteristic	score	generation			total
		young	mid	old	
meat	high	21	22	23	66
meat	medium	3	1	0	4
meat	low	0	0	0	0
milk	high	21	22	23	66
milk	medium	3	1	0	4
milk	low	0	0	0	0
trypanosomiasis	high	6	2	1	9
trypanosomiasis	medium	6	2	3	11
trypanosomiasis	low	12	19	19	50
walking	high	1	1	1	3
walking	medium	2	1	2	5
walking	low	21	21	20	62

**Table 2.** Characteristics of Keteeki breed mentioned by three generations of pastoralists (n)

characteristic	score	generation			total
		young	mid	old	
meat	high	9	5	7	21
meat	medium	9	16	14	39
meat	low	6	3	3	12
milk	high	8	5	6	19
milk	medium	8	15	10	33
milk	low	8	4	8	20
trypanosomiasis	high	10	12	13	35
trypanosomiasis	medium	6	5	5	16
trypanosomiasis	low	8	7	6	21
walking	high	2	3	7	12
walking	medium	12	11	13	36
walking	low	10	10	4	24

## Conclusions

- Gudali and Bodeeji breeds were valued best in productive, and Keteeki was best in non-productive characteristics
- Despite some divergences, there was a common knowledge across generations when valuing the characteristics of breeds
- Despite Keteeki performed the least in productive characteristics, it was valued the most desired breed because it withstands hunger

## Methods

- 72 Individual interviews with three generations of pastoralists (24 young, 24 mid and 24 old generation) about five breeds of cattle
- Four characteristics: meat and milk production (productive), resistance to walking and to trypanosomiasis (non-productive)
- Characteristics assessed through three scores: low, medium, high
- Data were analysed using frequencies of scoring for each characteristic per breed



**Photo 1.** Gudali breed (2-3 years old)



**Photo 2.** Bodeeji breed (>8 years old)



**Photo 3.** Jaliji breed (6-7 years old)



**Photo 4.** Tchiwali breed (>8 years old)



**Photo 5.** Keteeki breed (7-8 years old)

- Keteeki was the preferred breed for its capacity to withstand hunger (tables 3 and 4)

**Table 3.** Best breed mentioned by three generations of pastoralists (n)

breed	generation			total
	young	mid	old	
Keteeki	12	12	11	35
Tchiwali	3	7	4	14
Bodeeji	6	2	2	10
Gudali	1	2	5	8
Jaliji	2	1	2	5

**Table 4.** Reasons for choosing Keteeki as best breed by three generations of pastoralists (n)

reason	generation			total
	young	mid	old	
stand hunger	9	10	10	29
experience with Keteeki	2	1	1	4
resistant to disease	1	1	0	2