### Economic Clustering Summary Report: Chad 2014

### **Data Summary**

**Country Code-year:** TD14

**Number of observations:** 17193

Number of variables used: 17

Variable set used: 1

Variables used in the algorithm: hv207, hv210, hv211, hv243a, hv243b, hv243c, hv244,

hv246, sh110i, sh110j, sh110k, water, toilet, floor, roof, cookfuel, wall

**Top 10 Variable Sets (Sorted by ASW)** 

Set	ASW	Var.1	Var.2	Var.3	Var.4
1	0.8641	has animal-drawn cart	owns land usable for agriculture	owns livestock, herds or farm animals	cookfuel
2	0.845	has animal-drawn cart	owns land usable for agriculture	owns livestock, herds or farm animals	floor
3	0.8244	has animal-drawn cart	owns land usable for agriculture	floor	cookfuel
4	0.824	has animal-drawn cart	owns livestock, herds or farm animals	floor	cookfuel
5	0.8211	has animal-drawn cart	owns land usable for agriculture	has lamps	cookfuel
6	0.8208	has mobile telephone	has animal-drawn cart	floor	cookfuel
7	0.8201	has animal-drawn cart	owns livestock, herds or farm animals	has lamps	cookfuel
8	0.8179	has mobile telephone	has beds	floor	cookfuel
9	0.8178	has motorcycle/scooter	has animal-drawn cart	owns livestock, herds or farm animals	cookfuel
10	0.8155	has motorcycle/scooter	has animal-drawn cart	owns land usable for agriculture	cookfuel

# **Marginal Distributions**

Variable	Description	% in Top Sets	Distribution
hv243c	has animal-drawn cart	90%	Binary, 9.3% (1/yes)
hv243a	has mobile telephone	20%	Binary, 58.5% (1/yes)
hv211	has motorcycle/scooter	20%	Binary, 15% (1/yes)
hv244	owns land usable for agriculture	50%	Binary, 77.2% (1/yes)
hv246	owns livestock, herds or farm animals	50%	Binary, 74% (1/yes)
sh110j	has beds	10%	Binary, 54.9% (1/yes)
floor	floor	50%	Categorical, 0 (finished) = 8.4%, 1 (natural) = 88.4%, 2 (other) = 2.9%, 3 (rudimentary) = 0.3%
sh110k	has lamps	20%	Binary, 67.9% (1/yes)
cookfuel	cookfuel	90%	Binary, Mode: wood

# Cluster Configuration (Set #1)

Cluster Group	has animal- drawn cart	owns land usable for agriculture	owns livestock, herds or farm animals	cookfuel	Proportion (%)
1	1	0	1	charcoal	9.00
1	1	0	1	wood	
1	1	1	1	NA	
1	1	1	1	agricultural crop	
1	1	1	1	animal dung	
1	1	1	1	charcoal	
1	1	1	1	no food cooked in house	
1	1	1	1	other	
1	1	1	1	straw/shrubs/grass	
1	1	1	1	wood	
2	0	1	1	NA	55.51
2	0	1	1	agricultural crop	
2	0	1	1	animal dung	
2	0	1	1	biogas	
2	0	1	1	charcoal	
2	0	1	1	coal, lignite	
2	0	1	1	kerosene	
2	0	1	1	lpg	
2	0	1	1	natural gas	
2	0	1	1	no food cooked in house	
2	0	1	1	other	
2	0	1	1	straw/shrubs/grass	
2	0	1	1	wood	

Proportion (%)	cookfuel	owns livestock, herds or farm animals	owns land usable for agriculture	has animal- drawn cart	Cluster Group
	wood	NA	1	0	2
	wood	1	NA	0	2
	wood	NA	NA	0	2
	NA	1	1	NA	2
	lpg	1	1	NA	2
	no food cooked in house	1	1	NA	2
	wood	1	1	NA	2
	wood	NA	NA	NA	2
12.93	NA	0	1	0	3
	agricultural crop	0	1	0	3
	animal dung	0	1	0	3
	biogas	0	1	0	3
	charcoal	0	1	0	3
	coal, lignite	0	1	0	3
	kerosene	0	1	0	3
	lpg	0	1	0	3
	natural gas	0	1	0	3
	no food cooked in house	0	1	0	3
	other	0	1	0	3
	straw/shrubs/grass	0	1	0	3
	wood	0	1	0	3
	charcoal	0	1	1	3
	wood	0	1	1	3

Cluster Group	has animal- drawn cart	owns land usable for agriculture	owns livestock, herds or farm animals	cookfuel	Proportion (%)
3	NA	1	0	lpg	
4	0	0	0	animal dung	13.10
4	0	0	0	biogas	
4	0	0	0	charcoal	
4	0	0	0	coal, lignite	
4	0	0	0	electricity	
4	0	0	0	kerosene	
4	0	0	0	lpg	
4	0	0	0	natural gas	
4	0	0	0	no food cooked in house	
4	0	0	0	other	
4	0	0	0	straw/shrubs/grass	
4	0	0	0	wood	
4	0	0	NA	wood	
4	1	0	0	animal dung	
4	1	0	0	biogas	
4	1	0	0	wood	
4	NA	0	0	lpg	
4	NA	0	0	wood	
5	0	0	1	NA	9.46
5	0	0	1	animal dung	
5	0	0	1	biogas	
5	0	0	1	charcoal	
5	0	0	1	coal, lignite	

Cluster Group	anımal-	owns land usable for agriculture	owns livestock, herds or farm animals	cookfuel	Proportion (%)
5	5 0	0	1	lpg	
5	5 0	0	1	natural gas	
5	5 0	0	1	no food cooked in house	
5	5 0	0	1	other	
5	5 0	0	1	straw/shrubs/grass	
5	5 0	0	1	wood	
5	NA NA	0	1	wood	

### **Validation Tables**

### a.1) Using Children Deceased (Sorted by proportion of 0%)

Cluster ID/Children Deceased	0%	1-33%	34-66%	67+%
5 <sup>*</sup>	1,280 (77.8%)	247 (15.0%)	96 (5.8%)	23 (1.4%)
4	1,546 (72.5%)	383 (18.0%)	166 (7.8%)	38 (1.8%)
2	6,578 (66.8%)	2,313 (23.5%)	803 (8.2%)	153 (1.6%)
1	1,360 (66.2%)	492 (24.0%)	177 (8.6%)	24 (1.2%)
3	1,310 (65.3%)	439 (21.9%)	213 (10.6%)	44 (2.2%)
Total	12,074 (68.3%)	3,874 (21.9%)	1,455 (8.2%)	282 (1.6%)

<sup>\*</sup>The chi-squared p-value is 0

### a.2) Aggregating proportions greater than 0%

Cluster ID/Children Deceased	0%	>0%
5 <sup>*</sup>	1,280 (77.8%)	366 (22.2%)
4	1,546 (72.5%)	587 (27.5%)
2	6,578 (66.8%)	3,269 (33.2%)
1	1,360 (66.2%)	693 (33.8%)
3	1,310 (65.3%)	696 (34.7%)
Total	12,074 (68.3%)	5,611 (31.7%)

<sup>\*</sup>The chi-squared p-value is 0

b) Using Individual Education Level Attained (Sorted by weighted average by row)

Cluster ID/Education	0	1	2	3	4	5	W. Avg.
<b>4</b> *a	1,030 (48.3%)	291 (13.6%)	103 (4.8%)	514 (24.1%)	121 (5.7%)	74 (3.5%)	1.36
3	1,326 (66.1%)	353 (17.6%)	77 (3.8%)	209 (10.4%)	23 (1.1%)	18 (0.9%)	0.66
5	1,190 (72.3%)	175 (10.6%)	46 (2.8%)	184 (11.2%)	35 (2.1%)	16 (1.0%)	0.63
1	1,419 (69.1%)	340 (16.6%)	100 (4.9%)	186 (9.1%)	7 (0.3%)	1 (0.0%)	0.55
2	7,208 (73.2%)	1,459 (14.8%)	361 (3.7%)	745 (7.6%)	52 (0.5%)	22 (0.2%)	0.48
Total	12,173 (68.8%)	2,618 (14.8%)	687 (3.9%)	1,838 (10.4%)	238 (1.3%)	131 (0.7%)	0.63

<sup>\*</sup>The chi-squared p-value is 0

<sup>&</sup>lt;sup>a</sup>0=none, 1=incomplete primary, 2=primary, 3=incomplete secondary, 4=secondary, 5=higher

c) Using Primary Healthcare Source (Sorted by % enrolled in public healthcare [ascending order])

Cluster ID/Primary Healthcare Source	0	1	2
<b>4</b> *a	92 (59.0%)	36 (23.1%)	28 (17.9%)
5	31 (63.3%)	9 (18.4%)	9 (18.4%)
3	52 (78.8%)	6 (9.1%)	8 (12.1%)
1	32 (80.0%)	4 (10.0%)	4 (10.0%)
2	176 (88.0%)	14 (7.0%)	10 (5.0%)
Total	383 (75.0%)	69 (13.5%)	59 (11.5%)

<sup>\*</sup>The chi-squared p-value is 0

<sup>&</sup>lt;sup>a</sup>0=public/government, 1=private, 2=other