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 |  |
| 2 | 0 | 1 | NA | wood |  |
| 2 | 0 | NA | 1 | wood |  |
| 2 | 0 | NA | NA | wood |  |
| 2 | NA | 1 | 1 | NA |  |
| 2 | NA | 1 | 1 | lpg |  |
| 2 | NA | 1 | 1 | no food cooked in house |  |
| 2 | NA | 1 | 1 | wood |  |
| 2 | NA | NA | NA | wood |  |
| 3 | 0 | 1 | 0 | NA | 12.93 |
| 3 | 0 | 1 | 0 | agricultural crop |  |
| 3 | 0 | 1 | 0 | animal dung |  |
| 3 | 0 | 1 | 0 | biogas |  |
| 3 | 0 | 1 | 0 | charcoal |  |
| 3 | 0 | 1 | 0 | coal, lignite |  |
| 3 | 0 | 1 | 0 | kerosene |  |
| 3 | 0 | 1 | 0 | lpg |  |
| 3 | 0 | 1 | 0 | natural gas |  |
| 3 | 0 | 1 | 0 | no food cooked in house |  |
| 3 | 0 | 1 | 0 | other |  |
| 3 | 0 | 1 | 0 | straw/shrubs/grass |  |
| 3 | 0 | 1 | 0 | wood |  |
| 3 | 1 | 1 | 0 | charcoal |  |
| 3 | 1 | 1 | 0 | wood |  |
| 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 |  |
| 5 | 0 | 0 | 1 | lpg |  |
| 5 | 0 | 0 | 1 | natural gas |  |
| 5 | 0 | 0 | 1 | no food cooked in house |  |
| 5 | 0 | 0 | 1 | other |  |
| 5 | 0 | 0 | 1 | straw/shrubs/grass |  |
| 5 | 0 | 0 | 1 | wood |  |
| 5 | 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\* | 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%) |
| \*The chi-squared p-value is 0 | | | | |

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

| Cluster ID/Children Deceased | 0% | >0% |
| --- | --- | --- |
| 5\* | 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%) |
| \*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. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 4\*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 |
| \*The chi-squared p-value is 0 | | | | | | | |
| a0=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 |
| --- | --- | --- | --- |
| 4\*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%) |
| \*The chi-squared p-value is 0 | | | |
| a0=public/government, 1=private, 2=other | | | |