```
*{Construct Variables}.

compute hhusual=hv012.
compute hhslept=hv013.


*{Members per sleeping room}.
if (hhusual=0) hhusual=hhslept.
if (hv216>0) memsleep=trunc(hhusual/hv216).
if (hv216=0) memsleep=hhusual.
if (memsleep>=98) memsleep=98.
variable labels memsleep "Number of members per sleeping room".
value labels memsleep 0 'Less than 1 per room'.

*{Drinking water supply}.
compute h2oires=0.
if (hv201=11) h2oires=1.
variable labels h2oires "Piped into dwelling".
compute h2oyrd=0.
if (hv201=12) h2oyrd=1.
variable labels h2oyrd "Piped into yard/plot".
compute h2opub=0.
if (hv201=13) h2opub=1.
variable labels h2opub "Public tap / standpipe".
compute h2obwell=0.
if (hv201=21) h2obwell=1.
variable labels h2obwell "Tube well or borehole".
compute h2opwell=0.
if (hv201=31) h2opwell=1.
variable labels h2opwell "Protected well".
compute h2ouwell=0.
if (hv201=32) h2ouwell=1.
variable labels h2ouwell "Unprotected well".
compute h2opspg=0.
if (hv201=41) h2opspg=1.
variable labels h2opspg "Protected spring".
compute h2ouspg=0.
if (hv201=42) h2ouspg=1.
variable labels h2ouspg "Unprotected spring".
compute h2osurf=0.
if (hv201=43) h2osurf=1.
variable labels h2osurf "Surface water-river, lake, dam, etc.".
compute h2orain=0.
if (hv201=51) h2orain=1.
variable labels h2orain "Water from rain".
compute h2otruck=0.
if (hv201=61) h2otruck=1.
variable labels h2otruck "Water from tanker truck".
compute h2ocart=0.
if (hv201=62) h2ocart=1.
variable labels h2ocart "Water from cart with small tank".
```

```
compute h2obot=0.
if (hv201=71) h2obot=1.
variable labels h2obot "Water from bottle".
compute h2osales=0.
if (hv201=63) h2osales=1.
variable labels h2osales "Water vendor".
compute h2ooth=0.
if (hv201=96) h2ooth=1.
variable labels h2ooth "Other water source".
formats h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell h2opspg
h2ouspg h2orain h2otruck h2ocart h2osurf h2obot h2osales h2ooth
(f1.0).

*{Toilet facility}.
compute flushs=0.
if (hv205=11) flushs=1.
variable labels flushs "Flush toilet to sewer".
compute flusht=0.
if (hv205=12) flusht=1.
variable labels flusht "Flush toilet to septic tank".
compute latvip=0.
if (hv205=21) latvip=1.
variable labels latvip "VIP Latrine".
compute latslab=0.
if (hv205=22) latslab=1.
variable labels latslab 'Pit latrine with slab'.
compute latpit=0.
if (hv205=23) latpit=1.
variable labels latpit "Traditional pit latrine (no slab)".
compute latpail=0.
if (hv205=42) latpail=1.
variable labels latpail "Bucket latrine".
compute latbush=0.
if (hv205=31) latbush=1.
variable labels latbush "No facility/bush/field".
compute latoth=0.
if (hv205=96) latoth=1.
variable labels latoth 'Other type of latrine/toilet'.
formats flushs flusht latvip latslab latpit latpail latbush
latoth (f1.0).

compute latshare=0.
if (hv225=1) latshare=1.
variable labels latshare 'Shares latrine/toilet with other
households'.
formats latshare (f1.0).

compute sflushs=0.
var labels Sflushs "Shared Flush toilet to sewer".
compute sflusht=0.
var labels sflusht "Shared Flush toilet to septic tank".
compute slatvip=0.
```

```
var labels slatvip "Shared VIP latrine".
compute slatslab=0.
var labels slatslab "Shared pit latrine with slab".
compute slatpit=0.
var labels slatpit "Shared Traditional pit latrine".
compute slatpail=0.
var labels slatpail "Shared bucket latrine".
compute slatoth=0.
var labels slatoth 'Other type of latrine/toilet'.

do if (latshare=1).
  if (hv205=11) sflushs=1.
  if (hv205=12) sflusht=1.
  if (hv205=21) slatvip=1.
  if (hv205=22) slatslab=1.
  if (hv205=23) slatpit=1.
  if (hv205=42) slatpail=1.
  if (hv205=96) slatoth=1.
end if.
formats sflushs sflusht slatvip slatslab slatpit slatpail slatoth
(f1.0).


*{Flooring}.
compute dirtfloo=0.
if (hv213=11) dirtfloo=1.
variable labels dirtfloo "Earth, sand floor".

compute woodfloo=0.
if (hv213=21) woodfloo=1.
variable labels woodfloo "Rudimentary wood plank floor".
compute palmfloo=0.
if (hv213=22) palmfloo=1.
variable labels palmfloo "Rudimentary palm, bamboo floor".
compute prqfloo=0.
if (hv213=31) prqfloo=1.
variable labels prqfloo "Polished wood floor".
compute vinlfloo=0.
if (hv213=32) vinlfloo=1.
variable labels vinlfloo "Vinyl strips/asphalt floor".
compute cemtfloo=0.
if (hv213=34) cemtfloo=1.
variable labels cemtfloo "Cement floor".
compute mosfloo=0.
if (hv213=33) mosfloo=1.
variable labels mosfloo "Ceramic/mosaic floor".
compute rugfloo=0.
if (hv213=35) rugfloo=1.
variable labels rugfloo "Carpeted floor".
compute othfloo=0.
if (hv213=96) othfloo=1.
variable labels othfloo "Other type of flooring".
```

```
formats dirtfloo woodfloo prqfloo mosfloo cemtfloo rugfloo
othfloo (f1.0).

*{Walls}.
compute nowall=0.
if (hv214=11) nowall=1.
variable labels nowall "No walls".
compute natwall=0.
if (hv214=12 or hv214=13 or hv214=14) natwall=1.
variable labels natwall "Cane/palm/trunks/dirt/staw walls".
compute bambwall=0.
if (hv214=21) bambwall=1.
variable labels bambwall "Bamboo walls with mud".
compute stomwall=0.
if (hv214=22) stomwall=1.
variable labels stomwall "Stone walls with mud".
compute plywall=0.
if (hv214=24) plywall=1.
variable labels plywall "Plywood walls".
compute cardwall=0.
if (hv214=25) cardwall=1.
variable labels cardwall "Cardboard walls".
compute rwoodwall=0.
if (hv214=26) rwoodwall=1.
variable labels rwoodwall "Reused wood walls".
compute cmtwall=0.
if (hv214=31) cmtwall=1.
variable labels cmtwall "Cement walls".
compute stonwall=0.
if (hv214=32) stonwall=1.
variable labels stonwall "Stone walls with lime/cement".
compute brickwall=0.
if (hv214=33) brickwall=1.
variable labels brickwall "Brick walls".
compute cmtbwall=0.
if (hv214=34) cmtbwall=1.
variable labels cmtbwall "Cement block walls".
compute woodwall=0.
if (hv214=36) woodwall=1.
variable labels woodwall "Wood planks, shingles walls".
compute metlwall=0.
if (hv214=37) metlwall=1.
variable labels metlwall "Metal sheet walls".
compute othwall=0.
if (hv214=96) othwall=1.
variable labels othwall "Other type of walls".
formats nowall natwall bambwall stomwall plywall rwoodwall
cardwall cmtwall brickwall cmtbwall woodwall stonwall metlwall
othwall (f1.0).

*{Roofing}.
compute noroof=0.
```

```
if (hv215=11) noroof=1.
variable labels noroof "No roof".
compute natroof=0.
if (hv215=12 or hv215=13) natroof=1.
variable labels natroof "Thatch, palm, sod roof".
compute matroof=0.
if (hv215=21) matroof=1.
variable labels matroof "Mat roof".
compute palmroof=0.
if (hv215=22) palmroof=1.
variable labels palmroof "Palm/bamboo roof".
compute wproof=0.
if (hv215=23) wproof=1.
variable labels wproof "Wood planks roof".
compute cardroof=0.
if (hv215=24) cardroof=1.
variable labels cardroof "Cardboard roof".
compute skinroof=0.
if (hv215=25) skinroof=1.
variable labels skinroof "Skin roof".
compute tinroof=0.
if (hv215=31) tinroof=1.
variable labels tinroof "Metal roof".
compute woodroof=0.
if (hv215=32) woodroof=1.
variable labels woodroof "Wood roof".
compute fiberoof=0.
if (hv215=33) fiberoof=1.
variable labels fiberoof "Zinc/cement fiber roof".
compute cmtroof=0.
if (hv215=35) cmtroof=1.
variable labels cmtroof "Concrete roof".
compute shngroof=0.
if (hv215=34) shngroof=1.
variable labels shngroof "Shingles roof".
compute othroof=0.
if (hv215=96) othroof=1.
variable labels othroof "Other type of roof".
formats noroof natroof matroof palmroof wproof cardroof skinroof
tinroof woodroof fiberoof shngroof cmtroof othroof (f1.0).

*{Cooking Fuel}.
compute cookelec=0.
if (hv226=1) cookelec=1.
variable labels cookelec "Electricity for cooking".
compute cooklpg=0.
if (hv226=2) cooklpg=1.
variable labels cooklpg "LPG for cooking".
compute cookgas=0.
if (hv226=3) cookgas=1.
variable labels cookgas "Natural gas for cooking".
compute cookbio=0.
```

```
if (hv226=4) cookbio=1.
variable labels cookbio "Biogas for cooking".
compute cookkero=0.
if (hv226=5) cookkero=1.
variable labels cookkero "Kerosene for cooking".
compute cookcoal=0.
if (hv226=6) cookcoal=1.
variable labels cookcoal "Coal/lignite for cooking".
compute cookchar=0.
if (hv226=7) cookchar=1.
variable labels cookchar "Charcoal for cooking".
compute cookwood=0.
if (hv226=8) cookwood=1.
variable labels cookwood "Wood for cooking".
compute cookstraw=0.
if (hv226=9) cookstraw=1.
variable labels cookstraw "Straw/shrubs/grass for cooking".
compute cookcrop=0.
if (hv226=10) cookcrop=1.
variable labels cookcrop "Ag. crops for cooking".
compute cookdung=0.
if (hv226=11) cookdung=1.
variable labels cookdung "Dung for cooking".
compute cooknone=0.
if (hv226=95) cooknone=1.
variable labels cooknone 'Does not cook'.
compute cookoth=0.
if (hv226=96) cookoth=1.
variable labels cookoth "Other fuel for cooking".
formats cookelec cooklpg cookgas cookbio cookkero cookcoal
cookchar cookwood cookstraw cookcrop cookdung cooknone cookoth
(f1.0).

*{Reset missing values to "does not have", change 2 code to 0}.
do repeat xamen=hv206 to hv212 hv221 hv243a to hv243d hv247
sh110d to sh110n
                              sh118e sh118f.
if (missing(xamen) | xamen<>1) xamen=0.
end repeat.

* Land.
compute landarea=hv245/10.
if (missing(hv245) | hv245=98) landarea=$sysmis.
if (missing(hv244) | hv244<>1) landarea=0.
frequencies hv245 landarea.


*Animals.
do repeat anim=hv246a to hv246k, sh122e sh122g.
if (missing(hv246) | hv246 <>1) anim=0.
end repeat.
```

```
missing values hv246a to hv246k sh122e sh122g (98,99).

* Bank account.
if (missing(hv247) | hv247<>1) hv247=0.

* Compute urban and rural variables coded (1/0) for filters
later.
COMPUTE urban=(hv025 = 1).
COMPUTE rural=(hv025 = 2).
VARIABLE LABELS urban 'Urban' / rural 'Rural'.
VALUE LABELS urban 1 'Urban' / rural 1 'Rural'.
FORMATS urban rural (f1.0).

execute.


* Check on indicator variable creation.

FREQUENCIES VARIABLES=HV025 HV201 HV205 HV206 HV207 HV208 HV209
HV210 HV211 HV212 HV213 HV214 HV215
    HV216 HV221 HV225 HV226 HV243A HV243B HV243C HV243D HV244
HV245 HV246 HV246A HV246B HV246C HV246D
    HV246E HV246F HV246G HV246H HV246I HV246J HV246K HV247 sh110d
to sh110n sh118e sh118f
    sh122e sh122g DOMESTIC HOUSE LAND
  /ORDER=ANALYSIS.

FREQUENCIES VARIABLES=hhslept hhusual memsleep h2oires h2oyrd
h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo prqfloo vinlfloo cemtfloo
mosfloo rugfloo othfloo nowall natwall
    bambwall stomwall plywall cardwall rwoodwall cmtwall stonwall
brickwall cmtbwall woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cooklpg cookgas cookbio cookkero
cookcoal cookchar cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea urban rural
  /ORDER=ANALYSIS.
* Turn off weights before all factor analysis.
WEIGHT OFF.

save outfile="c:\hnp2a\Niger 2012\ni12assets.sav".

**********************************.
*** Factor Analysis to Test Distribution of created variables.

FACTOR
```

```
  /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV246B HV246C HV246D HV246E HV246F HV247 SH110d to sh110n
    sh118e sh118f sh122e sh122g HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea
  /MISSING MEANSUB
  /ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV246B HV246C HV246D HV246E HV246F HV247 SH110d to sh110n
    sh118e sh118f sh122e sh122g HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea
  /PRINT UNIVARIATE INITIAL EXTRACTION fscore
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /METHOD=CORRELATION.

**********************************.
*** Common Factor Analysis.

FILTER OFF.
USE ALL.
EXECUTE.

**** Redo removing area-specific variables ****.
** Agricultural animal variables excluded.
```

```
** Any others ?.

FACTOR
  /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth
    cooknone
  /MISSING MEANSUB
  /ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL COM)
  /METHOD=CORRELATION.


weight off.

FILTER OFF.
```

```
USE ALL.
EXECUTE.

RANK VARIABLES=com1 (A) /RANK /NTILES (5) /PRINT=YES /TIES=MEAN.


** Now do the optimal binning.

compute cattle=hv246a.
compute dairy=hv246b.
compute equine=hv246c.
compute goats=hv246d.
compute sheep=hv246e.
compute chicks=hv246f.
compute camels=sh122e.
compute ducks=sh122g.
execute.

FREQUENCIES VARIABLES=dairy to chicks camels ducks.

** Classify large animals (cattle, dairy, traction, hogs, goats,
sheep, etc.) into the following categories
0, 1-4, 5-9, 10+.

** Classifiy small animals into the following categories:
0, 1-9, 10-29, 30+.
use all.
filter off.
execute.
numeric dairy1 to dairy4 equine1 to equine4, goats1 to goats4,
sheep1 to sheep4 chicks1 to chicks4 camels1 to camels4 ducks1 to
ducks4.
do repeat  lgan=dairy to sheep camels
                /lg1=dairy1 equine1 goats1 sheep1 camels1
                /lg2=dairy2 equine2 goats2 sheep2 camels2
                /lg3=dairy3 equine3 goats3 sheep3 camels3
                /lg4=dairy4 equine4 goats4 sheep4 camels4.
compute lg1=(lgan = 0).
compute lg2=(lgan ge 1 and lgan le 4).
compute lg3=(lgan ge 5 and lgan le 9).
compute lg4=(lgan ge 10 and lgan le 97).
end repeat.
execute.
value labels dairy1 equine1 goats1 sheep1 camels1 1 'Zero'.
value labels dairy2 equine2 goats2 sheep2 camels2 1 '1 to 4'.
value labels dairy3 equine3 goats3 sheep3 camels3 1 '5 to 9'.
value labels dairy4 equine4 goats4 sheep4 camels4 1 '10 or more'.


do repeat sman=chicks ducks
                /sm1=chicks1 ducks1
                /sm2=chicks2 ducks2
```

```
                /sm3=chicks3 ducks3
                /sm4=chicks4 ducks4.
compute sm1=(sman = 0).
compute sm2=(sman ge 1 and sman le 9).
compute sm3=(sman ge 10 and sman le 29).
compute sm4=(sman ge 30 and sman le 97).
end repeat.
execute.
value labels chicks1 ducks1 1 'Zero'.
value labels chicks2 ducks2 1 '1 to 9'.
value labels chicks3 ducks3 1 '10 to 29'.
value labels chicks4 ducks4 1 '30 or more'.
frequencies dairy1 to ducks4.

USE ALL.
FILTER BY urban.
EXECUTE.

*OPTIMAL BINNING
  /variables guide=ncom1 bin=landarea  save=yes (into=landgrpu)
 /CRITERIA preprocess=EQUALFREQ
                  method=MDLP
                  LOWEREND =OBSERVED

                           UPPEREND =OBSERVED
 /MISSING SCOPE = PAIRWISE.

*NUMERIC lagu1 to lagu4.
*VECTOR lagv = lagu1 to lagu4.
*LOOP #i = 1 to 4.
*COMPUTE lagv(#i) = (landgrpu = #i).
*END LOOP.
*EXECUTE.

FACTOR
  /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f sh122e sh122g HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2ouspg h2osurf h2ocart h2obot h2osales h2ooth flushs flusht
latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall natroof matroof palmroof wproof cardroof skinroof
tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
```

```
    cookcrop cookdung cooknone cookoth landarea dairy1 to ducks4
  /MISSING MEANSUB
  /ANALYSIS HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f sh122e sh122g HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2ouspg h2osurf h2ocart h2obot h2osales h2ooth flushs flusht
latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall natroof matroof palmroof wproof cardroof skinroof
tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea dairy1 to ducks4
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL URB)
  /METHOD=CORRELATION.

means urb1 by  dairy1 to chicks4.

USE ALL.
FILTER BY rural.
EXECUTE.

OPTIMAL BINNING
  /variables guide=ncom1 bin=landarea save=yes (into=landgrpr)
 /CRITERIA preprocess=EQUALFREQ
                   method=MDLP
                   LOWEREND =OBSERVED

                            UPPEREND =OBSERVED
 /MISSING SCOPE = PAIRWISE.

Frequencies landgrpr.

NUMERIC lagr1 to lagr5.
VECTOR lagv = lagr1 to lagr5.
LOOP #i = 1 to 5.
COMPUTE lagv(#i) = (landgrpr = #i).
END LOOP.
EXECUTE.

FACTOR
```

```
  /VARIABLES HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ooth flushs flusht
latvip
    latslab latpit latpail latbush latoth latshare sflusht
slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall brickwall cmtbwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof cmtroof
    othroof cookgas cookcoal cookchar cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea dairy1 to ducks3
  /MISSING MEANSUB
  /ANALYSIS  HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221
HV243A HV243B HV243C
    HV247 SH110d to sh110n
    sh118e sh118f HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ooth flushs flusht
latvip
    latslab latpit latpail latbush latoth latshare sflusht
slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall brickwall cmtbwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof cmtroof
    othroof cookgas cookcoal cookchar cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea dairy1 to ducks3
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL RUR)
  /METHOD=CORRELATION.
means rur1 by dairy1 to ducks4.

* Calculate regressions with total score.

* To be added in where the regressions take place:.

* Name the dataset window for the hh data for use later.
dataset name assets.

* label the created score variables.
variable labels
  com1 "Common wealth score"
 /urb1 "Urban wealth score"
```

```
 /rur1 "Rural wealth score".

* Add a variable used for linking later.
use all.
string ROWTYPE_ (A8).
compute ROWTYPE_ = 'EST'.

* Calculate regressions with total score.
** Urban area.

use all.
filter by urban.
execute.

* Declare a dataset to be written to in the regression.
dataset declare urbcorv.
regression
  /missing listwise
  /statistics coeff outs r anova
  /criteria=pin(.05) pout(.10)
  /noorigin
  /dependent com1
  /method=enter urb1
  /outfile=corv(urbcorv).
* Activate file of output from regression.
dataset activate urbcorv.
* Drop all rows of output except the coefficients.
select if (ROWTYPE_ = 'EST').
execute.
* Delete unnecessary variables before merging.
delete variables DEPVAR_ VARNAME_.
* Rename variables containing the constant and the coefficient.
rename variables CONST_=urbconst urb1=urbcoeff.

* Re-activitate the main household data.
dataset activate assets.
* Rename the urban score.
rename variables urb1=urbscore.
* merge the coefficients.
match files
  /file = *
  /table = urbcorv
  /by ROWTYPE_.
execute.

** Rural area.

use all.
filter by rural.

* Declare a dataset to be written to in the regression.
dataset declare rurcorv.
```

```
regression
  /missing listwise
  /statistics coeff outs r anova
  /criteria=pin(.05) pout(.10)
  /noorigin
  /dependent com1
  /method=enter rur1
  /outfile=corv(rurcorv).
* Activate file of output from regression.
dataset activate rurcorv.
* Drop all rows of output except the coefficients.
select if (ROWTYPE_ = 'EST').
execute.
* Delete unnecessary variables before merging.
delete variables DEPVAR_ VARNAME_.
* Rename variables containing the constant and the coefficient.
rename variables CONST_=rurconst rur1=rurcoeff.

* Re-activitate the main household data.
dataset activate assets.
* Rename the rural score.
rename variables rur1=rurscore.
* merge the coefficients.
match files
  /file = *
  /table = rurcorv
  /by ROWTYPE_.
execute.

use all.

dataset close urbcorv.
dataset close rurcorv.
dataset activate assets.

*** Calculate combined wealth score from Urban and Rural Scores.
* Use coefficients from urban and rural regressions above!.
compute combscor=0.
variable labels combscor "Combined wealth score".
formats combscor (f11.5).
** Urban - replace values with those from the regressions above!.
if (urban = 1) combscor=urbconst+urbcoeff*urbscore.
** Rural - replace values with those from the regressions above!.
if (rural = 1) combscor=rurconst+rurcoeff*rurscore.
execute.

** Urban Area.



*Tabulation for histograms.
compute hhwt = hv005/1000000.
```

```
VARIABLE LABELS hhwt 'HH weights' .
weight by hhwt.
filter off.
use all.

FREQUENCIES
  VARIABLES=combscor COM1 /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

USE ALL.
FILTER BY urban.
EXECUTE.

FREQUENCIES
  VARIABLES=combscor URBscore /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

USE ALL.
FILTER BY rural.
EXECUTE.

FREQUENCIES
  VARIABLES=combscor RURscore /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MEAN
  /HISTOGRAM  NORMAL
  /ORDER=ANALYSIS.

FILTER OFF.
USE ALL.
EXECUTE.


*Calculate quintiles and scores for data file.
compute hhmemwt=hv005*hhusual/1000000.
weight by hhmemwt.
VARIABLE LABELS hhmemwt 'HH members weighting for index'.

** Urban Area.
USE ALL.
FILTER BY urban.
EXECUTE.

RANK VARIABLES=urbscore (A) /RANK /NTILES (5) /PRINT=YES
/TIES=MEAN.
```

```
** Rural Area.
USE ALL.
FILTER BY rural.
EXECUTE.

RANK VARIABLES=rurscore (A) /RANK /NTILES (5) /PRINT=YES
/TIES=MEAN.

** National combined score.
FILTER OFF.
USE ALL.
EXECUTE.

RANK VARIABLES=combscor (A) /RANK /NTILES (5) /PRINT=YES
/TIES=MEAN.

FREQUENCIES
  VARIABLES=combscor
     /FORMAT=NOTABLE
  /NTILES=5
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN MODE SKEWNESS
SESKEW KURTOSIS SEKURT
  /ORDER=ANALYSIS.

*** Check on quintiles.

frequencies variables=ncombsco.

weight by hhwt.

MEANS TABLES=
    HV206 HV207 HV208 HV209 HV210 HV211 HV212 HV221 HV243A HV243B
HV243C
    HV246B HV246C HV246D HV246E HV246F HV247 SH110d to sh110n
    sh118e sh118f sh122e sh122g HOUSE LAND
    memsleep h2oires h2oyrd h2opub h2obwell h2opwell h2ouwell
    h2opspg h2ouspg h2osurf h2orain h2otruck h2ocart h2obot
h2osales h2ooth flushs flusht latvip
    latslab latpit latpail latbush latoth latshare sflushs
sflusht slatvip slatslab slatpit slatpail
    slatoth dirtfloo woodfloo palmfloo vinlfloo cemtfloo mosfloo
rugfloo othfloo nowall natwall
    stomwall rwoodwall cmtwall stonwall brickwall cmtbwall
woodwall metlwall
    othwall noroof natroof matroof palmroof wproof cardroof
skinroof tinroof woodroof fiberoof cmtroof
    shngroof othroof cookelec cookgas cookkero cookcoal cookchar
cookwood cookstraw
    cookcrop cookdung cooknone cookoth landarea landarea  lagr1
to lagr2 dairy1 to ducks4
    by Ncombsco
  /CELLS MEAN COUNT STDDEV.
```

```
WEIGHT OFF.

save outfile="c:\hnp2a\Niger 2012\NI12assets.sav".

*** Write out scores file.
WRITE OUTFILE="c:\hnp2a\Niger 2012\NI12scores.dat"
  TABLE
  /hhid combscor ncombsco urbscore nurbscor rurscore nrurscor.
EXECUTE.
```