

Country data for donation priority ranking

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Research Question

For countries in emergency from war, nature disaster and poverty,

how can we set priorities to aid the countries with limited donation money?

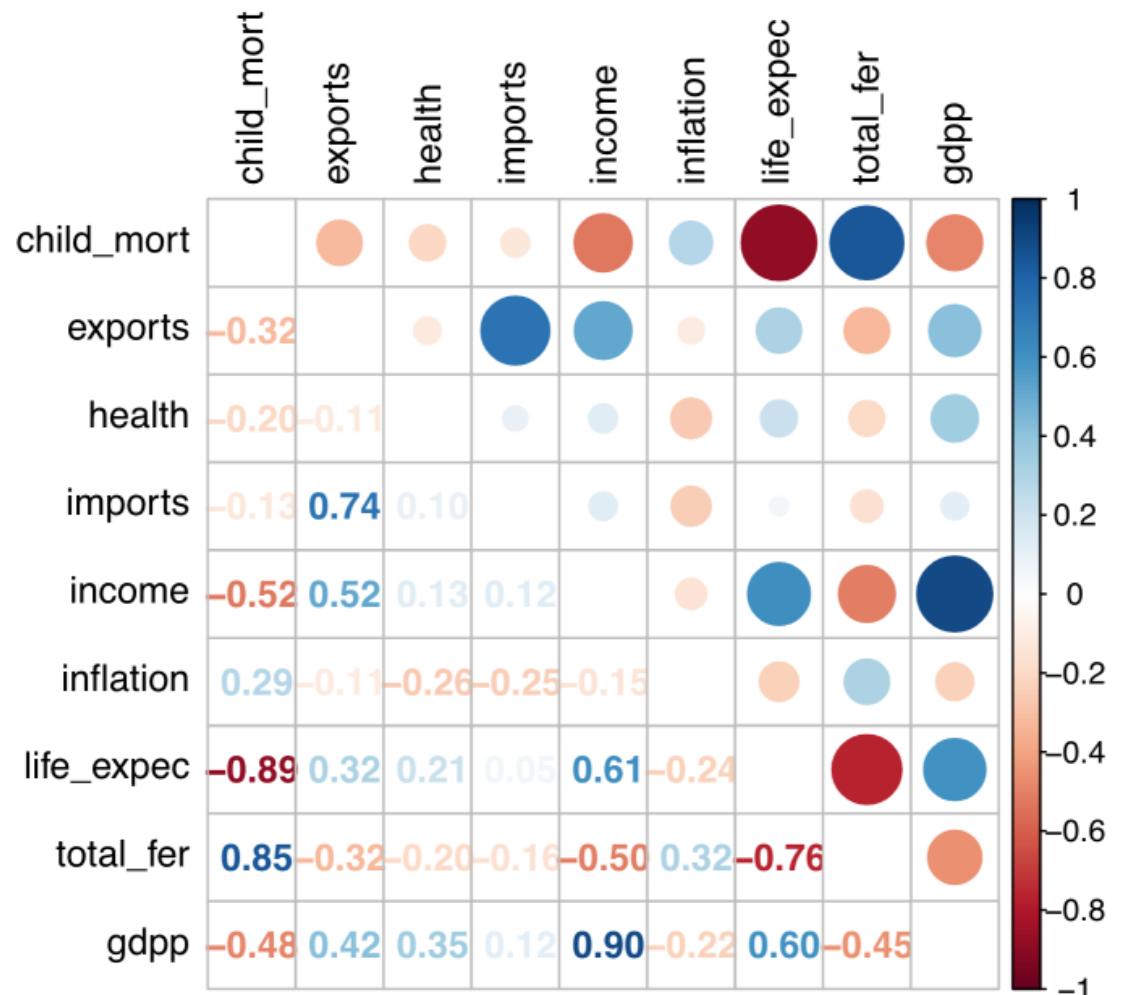


Seeking asylum is a human right.

Correlation plot

```
summary(country)

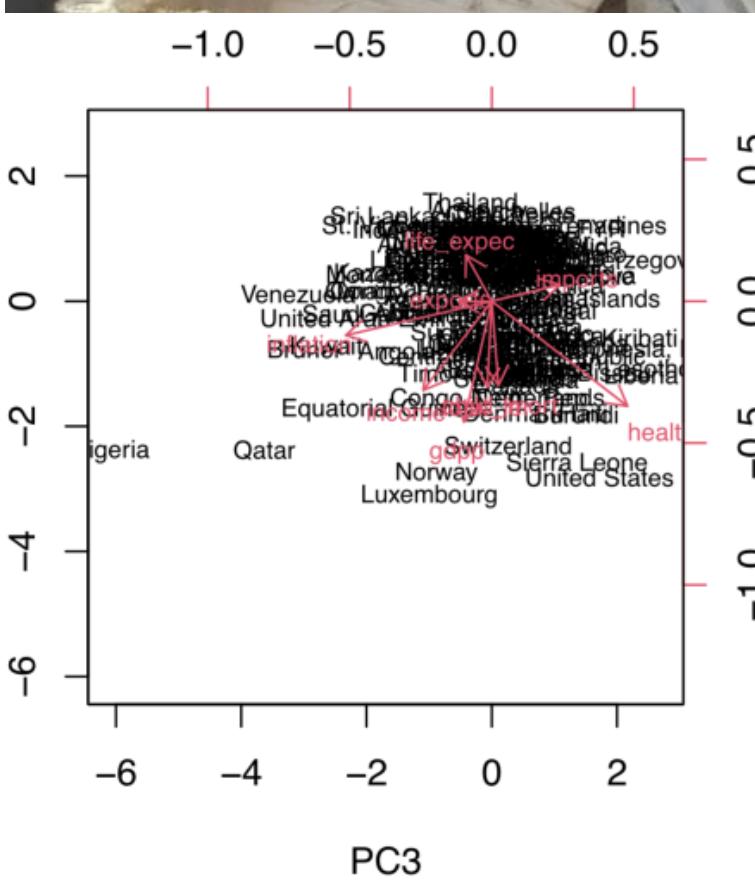
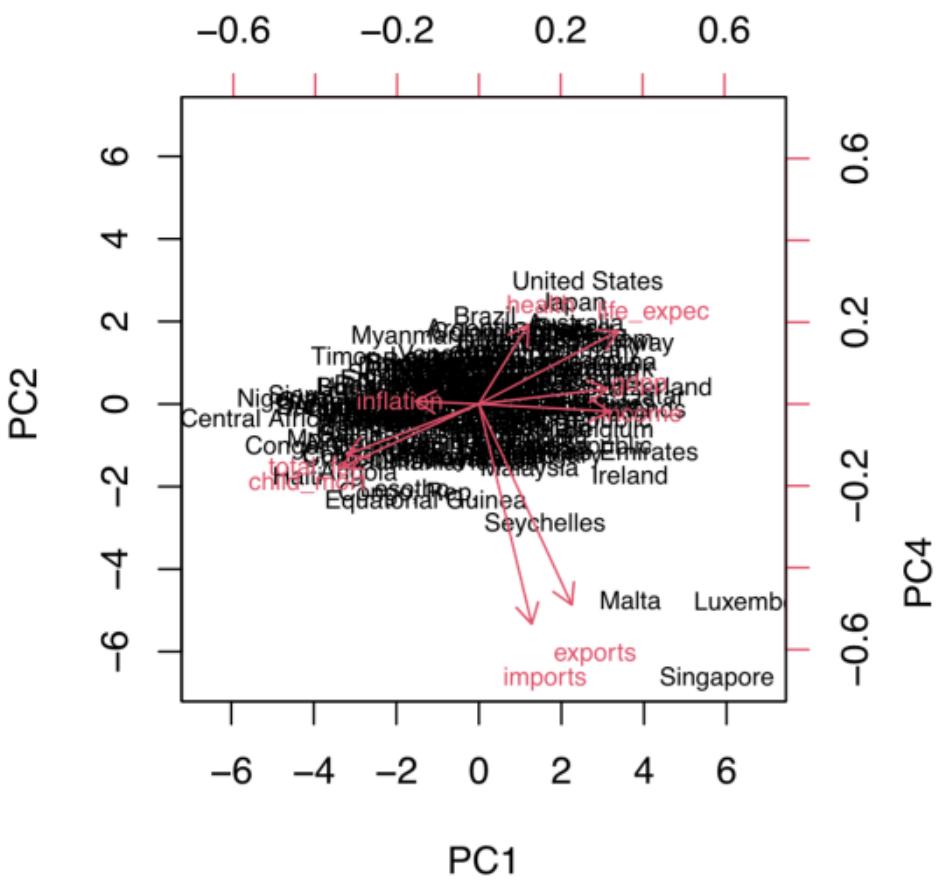
##          country      child_mort      exports      health
## Afghanistan : 1   Min.   : 2.60   Min.   : 0.109   Min.   : 1.810
## Albania     : 1   1st Qu.: 8.25    1st Qu.: 23.800  1st Qu.: 4.920
## Algeria     : 1   Median  :19.30    Median : 35.000  Median : 6.320
## Angola      : 1   Mean    :38.27    Mean   : 41.109  Mean   : 6.816
## Antigua and Barbuda: 1 3rd Qu.:62.10    3rd Qu.: 51.350  3rd Qu.: 8.600
## Argentina    : 1   Max.   :208.00    Max.  :200.000  Max.  :17.900
## (Other)      :161
##           imports      income      inflation      life_expec
## Min.   : 0.0659   Min.   : 609   Min.   :-4.210   Min.   :32.10
## 1st Qu.: 30.2000  1st Qu.: 3355  1st Qu.: 1.810   1st Qu.:65.30
## Median : 43.3000  Median : 9960  Median : 5.390   Median :73.10
## Mean   : 46.8902  Mean   :17145  Mean   : 7.782   Mean   :70.56
## 3rd Qu.: 58.7500  3rd Qu.: 22800 3rd Qu.:10.750   3rd Qu.:76.80
## Max.   :174.0000  Max.   :125000  Max.   :104.000  Max.   :82.80
##
##          total_fer      gdpp
## Min.   :1.150   Min.   : 231
## 1st Qu.:1.795   1st Qu.: 1330
## Median :2.410   Median : 4660
```



PCA _ Principal Components

```
## Standard deviations (1, ..., p=9):
## [1] 2.0336314 1.2435217 1.0818425 0.9973889 0.8127847 0.4728437 0.3368067
## [8] 0.2971790 0.2586020
##
## Rotation (n x k) = (9 x 9):
##          PC1       PC2       PC3       PC4       PC5
## child_mort -0.4195194 -0.192883937  0.02954353 -0.370653262  0.16896968
## exports     0.2838970 -0.613163494 -0.14476069 -0.003091019 -0.05761584
## health      0.1508378  0.243086779  0.59663237 -0.461897497 -0.51800037
## imports     0.1614824 -0.671820644  0.29992674  0.071907461 -0.25537642
## income      0.3984411 -0.022535530 -0.30154750 -0.392159039  0.24714960
## inflation   -0.1931729  0.008404473 -0.64251951 -0.150441762 -0.71486910
## life_expec  0.4258394  0.222706743 -0.11391854  0.203797235 -0.10821980
## total_fer   -0.4037290 -0.155233106 -0.01954925 -0.378303645  0.13526221
## gdpp        0.3926448  0.046022396 -0.12297749 -0.531994575  0.18016662
##          PC6       PC7       PC8       PC9
## child_mort -0.200628153  0.07948854  0.68274306  0.32754180
## exports     0.059332832  0.70730269  0.01419742 -0.12308207
## health      -0.007276456  0.24983051 -0.07249683  0.11308797
## imports     0.030031537 -0.59218953  0.02894642  0.09903717
## income      -0.160346990 -0.09556237 -0.35262369  0.61298247
## inflation   -0.066285372 -0.10463252  0.01153775 -0.02523614
## life_expec  0.601126516 -0.01848639  0.50466425  0.29403981
## total_fer   0.750688748 -0.02882643 -0.29335267 -0.02633585
## gdpp        -0.016778761 -0.24299776  0.24969636 -0.62564572
```

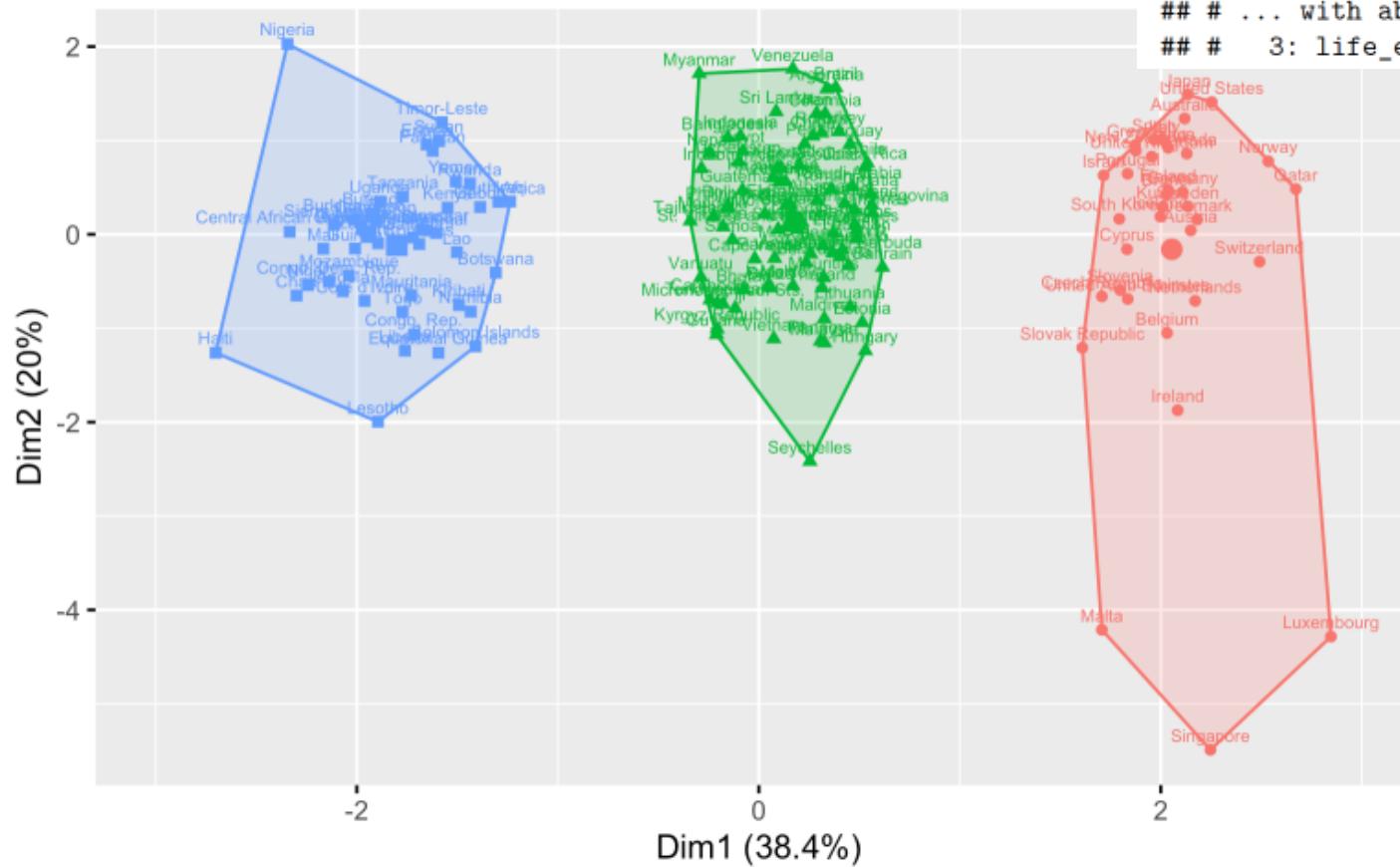
PCA _ Biplots



K-mean Cluster cluster means for 3 groups

Cluster plot

K-Means With PCA & K-Value = 3



```

## # A tibble: 3 x 10
##   cluster child_~1 exports health imports income infla-2 life_~3 total~4 gdpp
##   <int>     <dbl>    <dbl>    <dbl>    <dbl>    <dbl>    <dbl>    <dbl>    <dbl>    <dbl>
## 1       1    -0.828   0.632    0.765   0.191    1.49   -0.496    1.09   -0.797   1.65
## 2       2    -0.411  -0.0228   -0.239   0.00919  -0.227  -0.0164   0.273   -0.439  -0.341
## 3       3     1.32   -0.421   -0.139   -0.155   -0.687    0.391   -1.27    1.35   -0.603
## # ... with abbreviated variable names 1: child_mort, 2: inflation,
## #   3: life_expec, 4: total_fer

```

Every Section

Cameroon, Central African Republic

cluster
1
2
3

Red_Cluster 1 = No help needed

Green_ Cluster 2 = Might need help

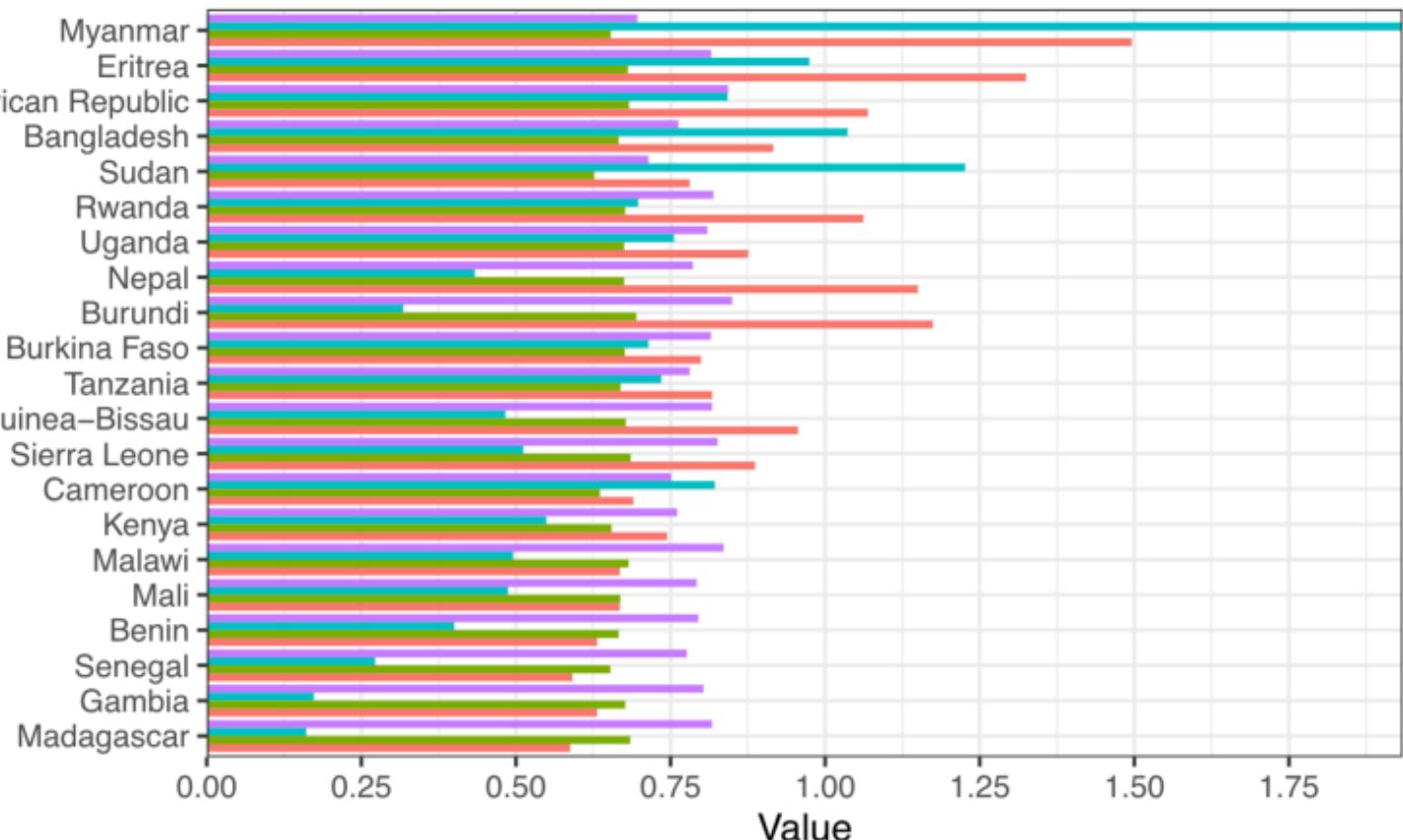
Blue_ Cluster 3 = Help needed

Country Cluster Profiling



Country

Most Needed Aid Country In Economic Segmen
Comparismn between Income, Exports, Imports & GDP

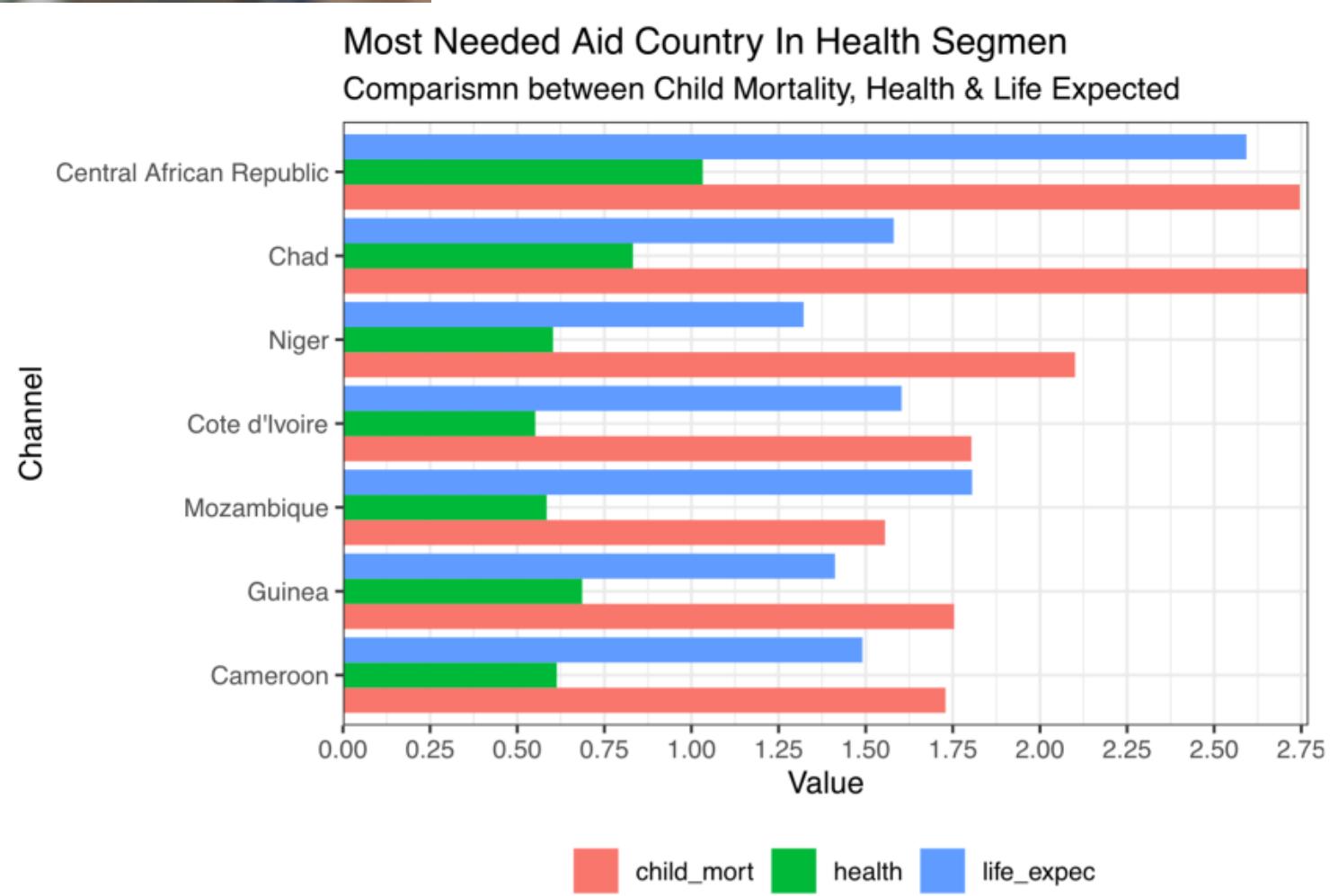


Value

exports gdpp imports income



Country Cluster Profiling



Results & Further work

Country Priority for Aid in Emergency



Every Section

Cameroon, Central African Republic

Rank	Economic Sec.	Health Sec.
1st	Myanmar	Chad
2nd	Sudan	Central African Republic
3rd	Bangladesh	Niger