

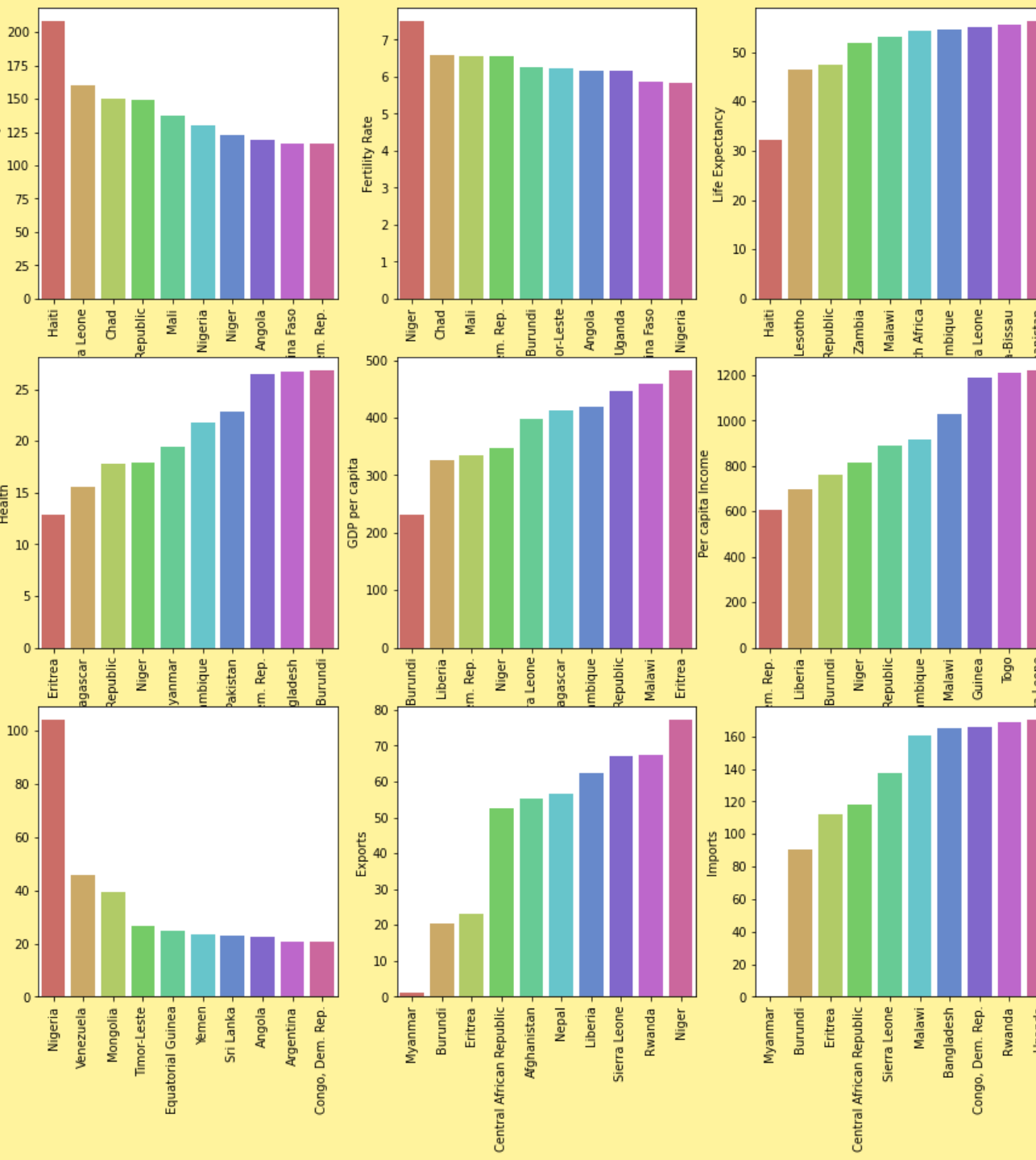


HELP NGO Clustering Assignment

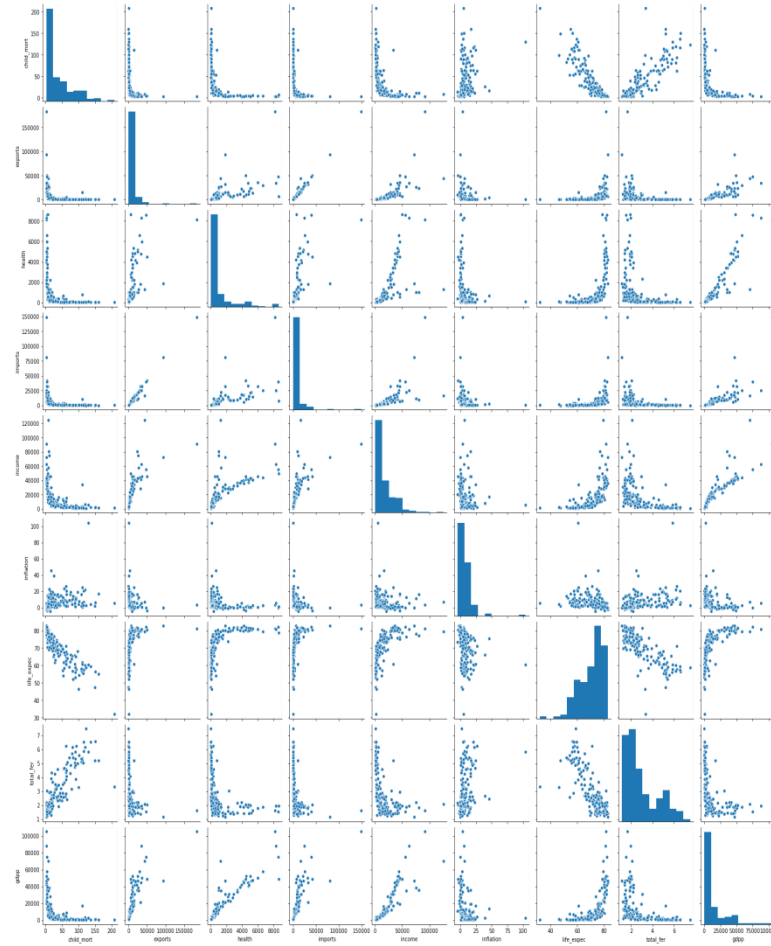
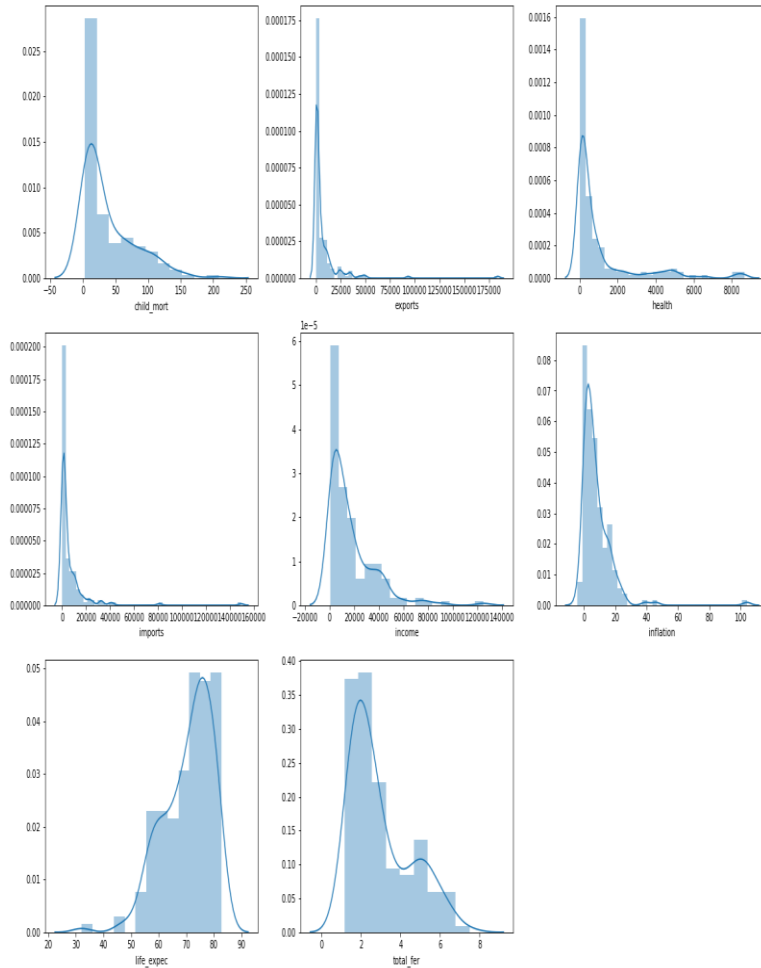
- By Shashank Sharma

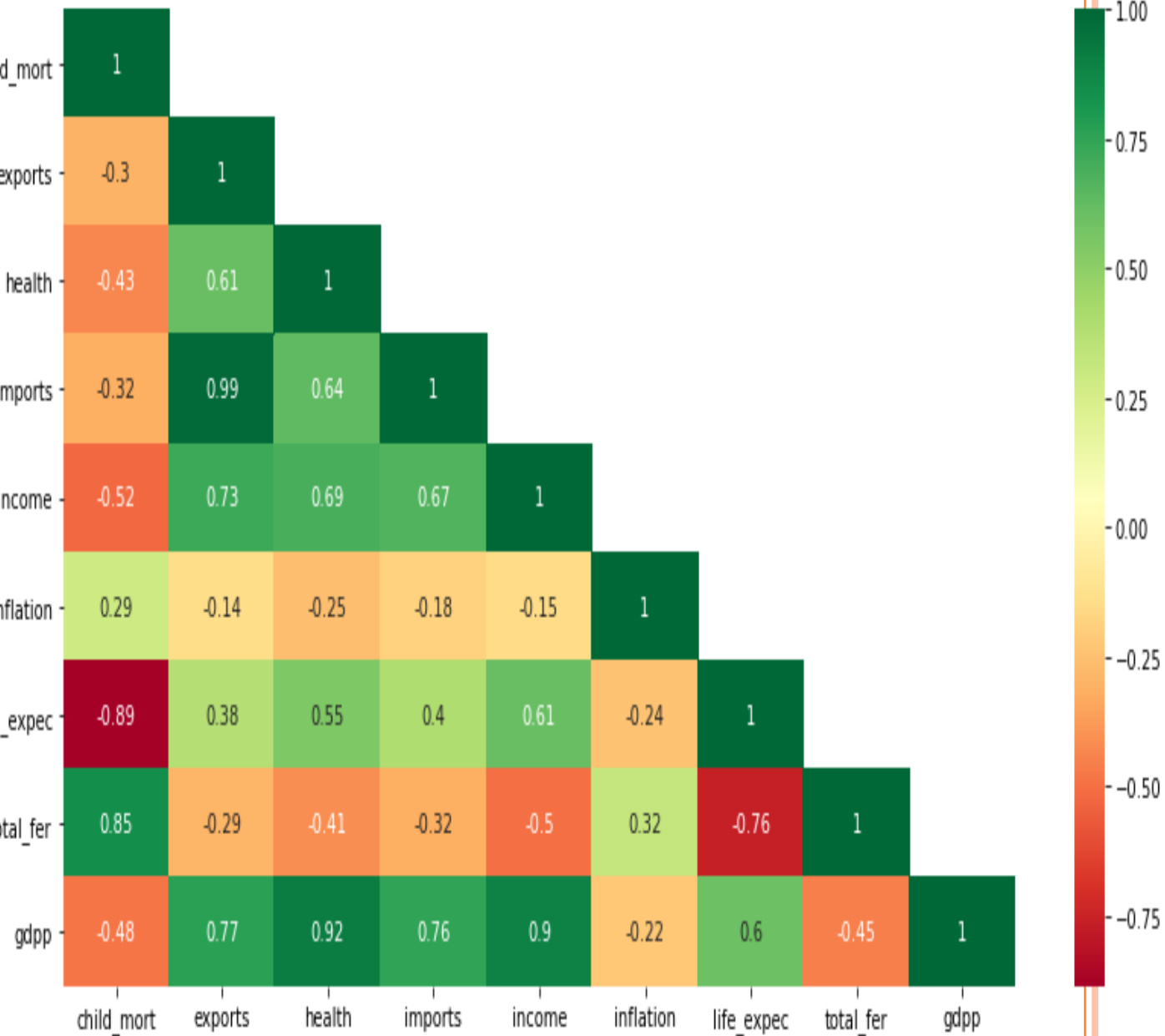
Data Visualising

From this we infer that Burundi has lowest GDPP , Congo, Dem . Rep has lowest Income and Haiti has highest Child Mortality.



IN THIS WE OBSERVE DISTRIBUTION AND VISUALISE MULTIPLE VARIABLES



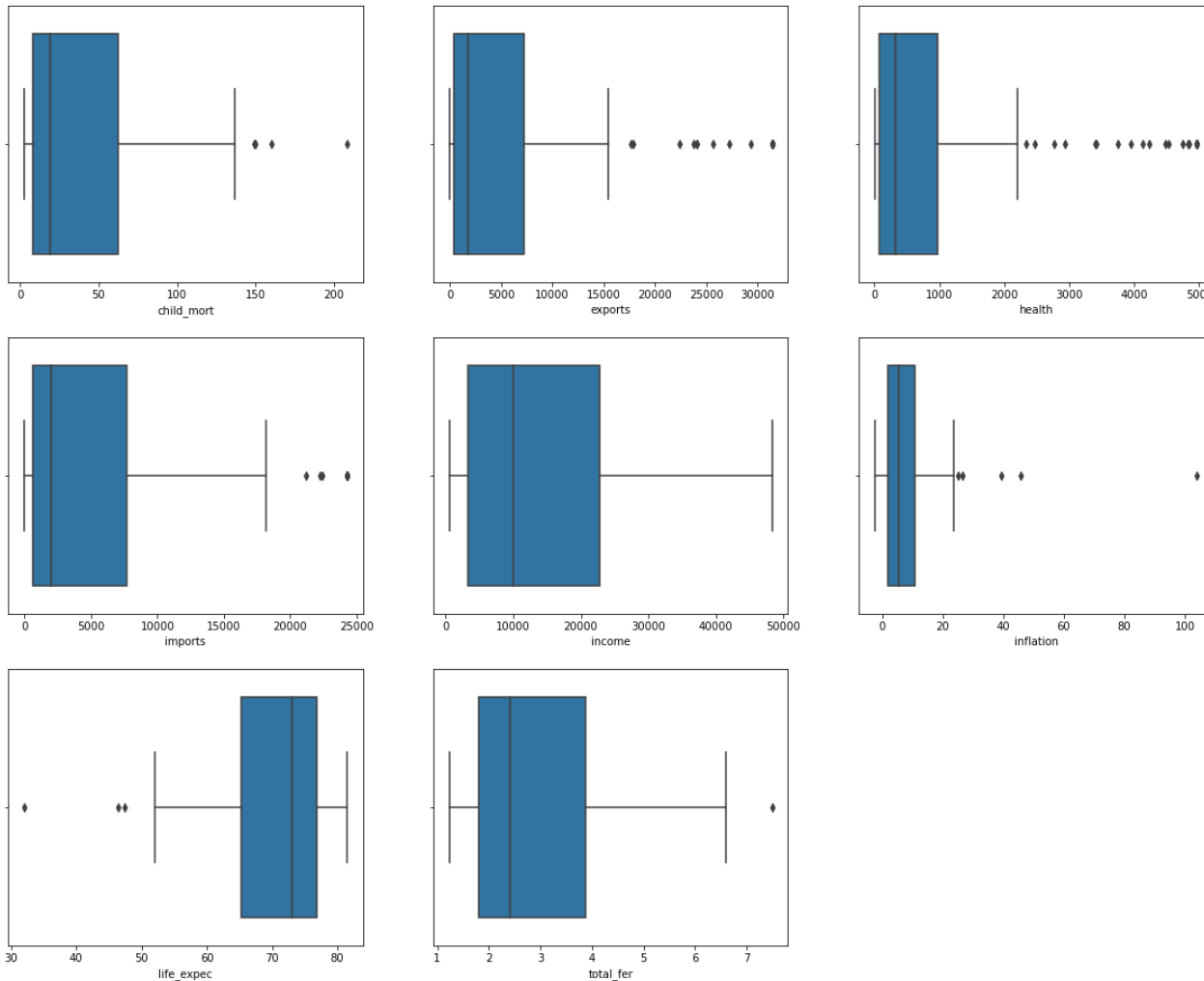


Correlation between Variables

From this we infer
that life_expect is
inversely correlated
with child_mort and
total_fer



OUTLIERS IN DATASET AFTER TREATMENT



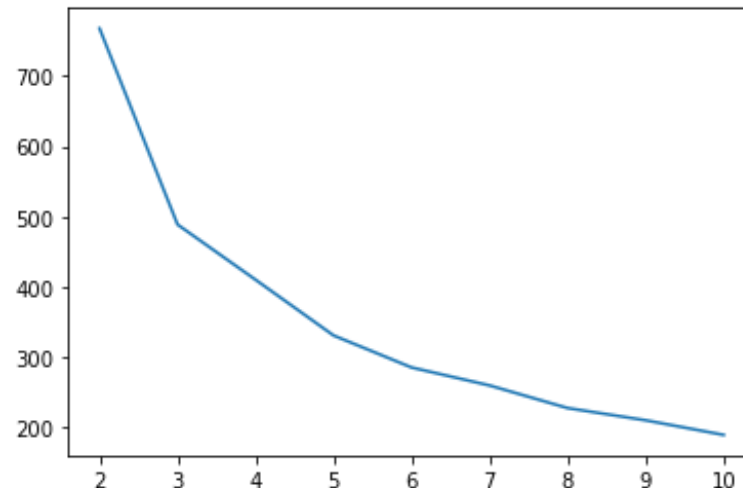
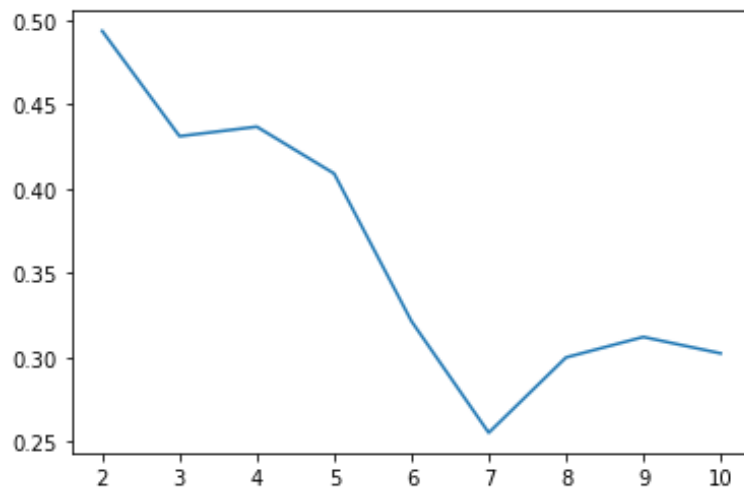
For Columns `child_mort`, `inflation` and `total_fer` we cap the outliers to 0.01 .

For all other columns we cap them to 0.95 .

As having low `child_mort`, `inflation` and `total_fer` is good.



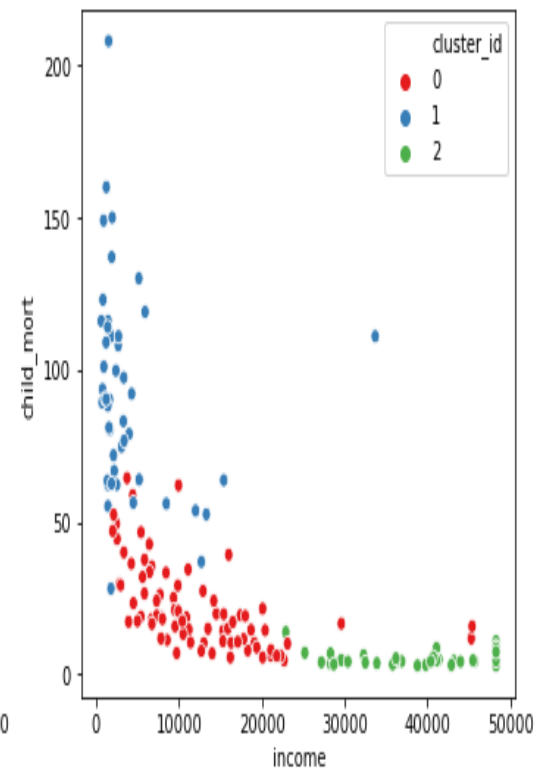
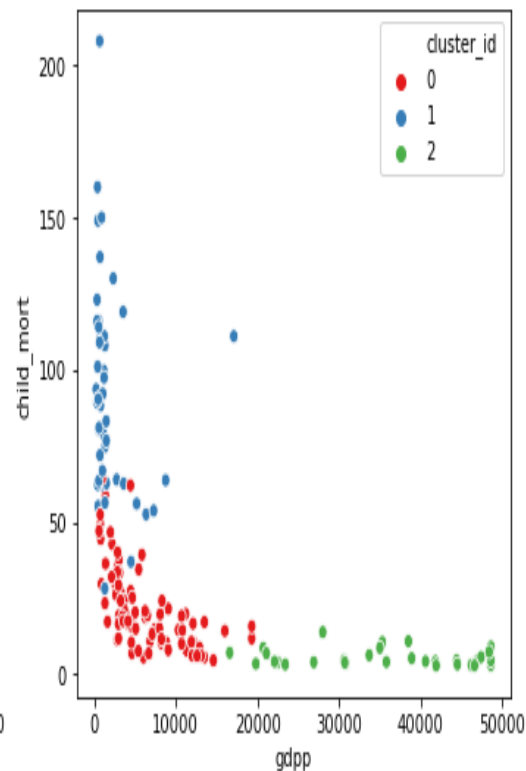
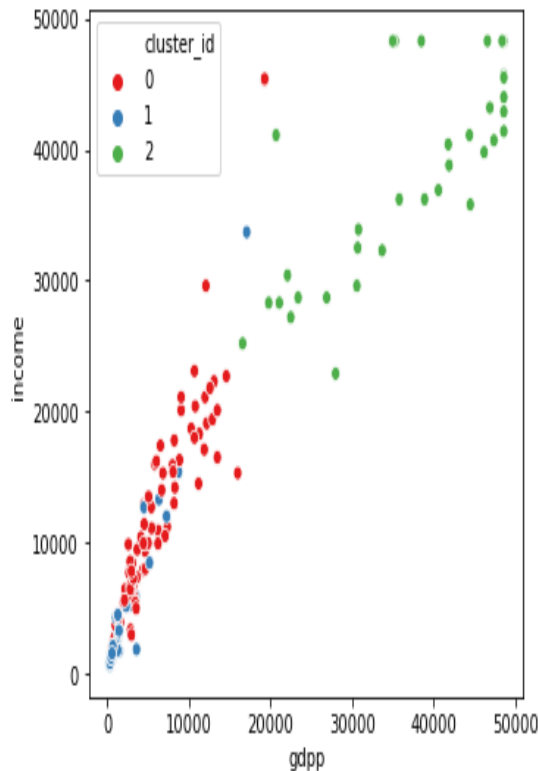
FOR FINDING THE BEST VALUE OF K



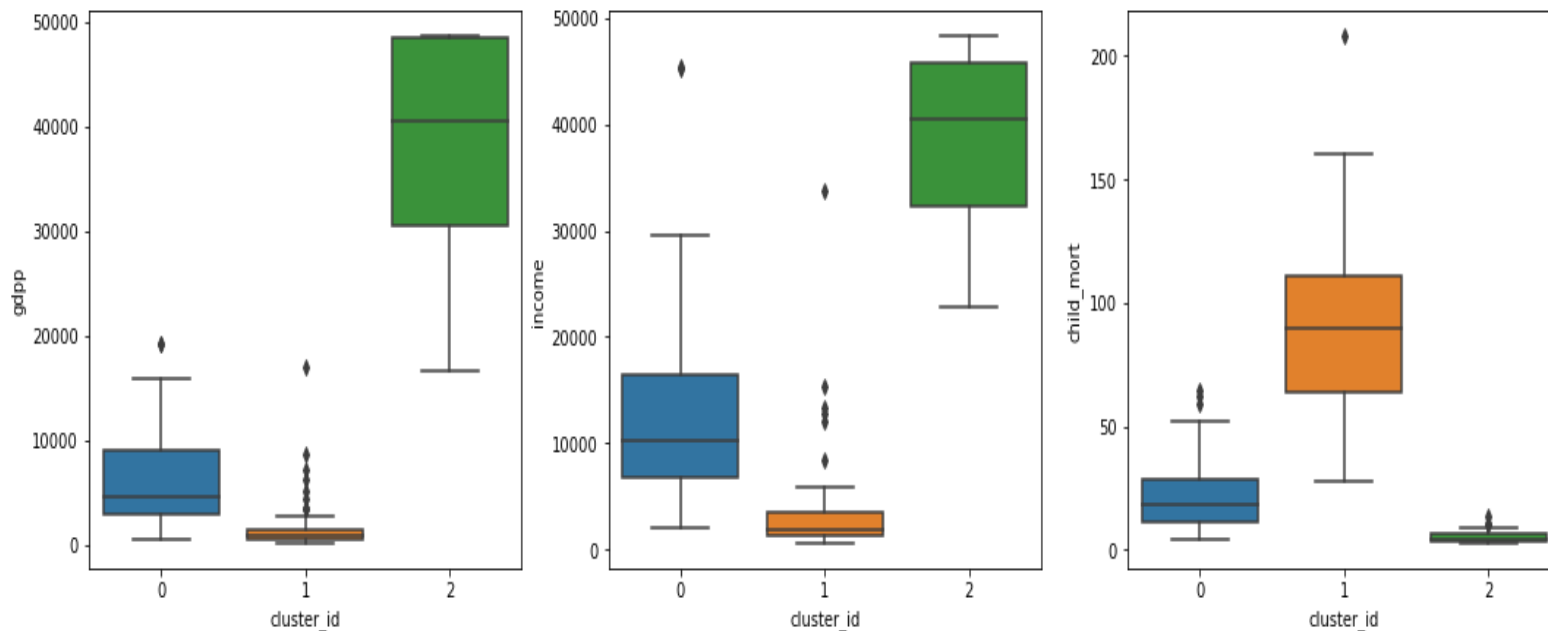
By observing both results we took value $k = 3$ for our clusters.



SCATTER PLOT BASED ON GDPP, CHILD_MORT, INCOME FROM K-MEANS



BOX PLOT OF ALL CLUSTERS BASED ON GDPP , CHILD_MORT , INCOME

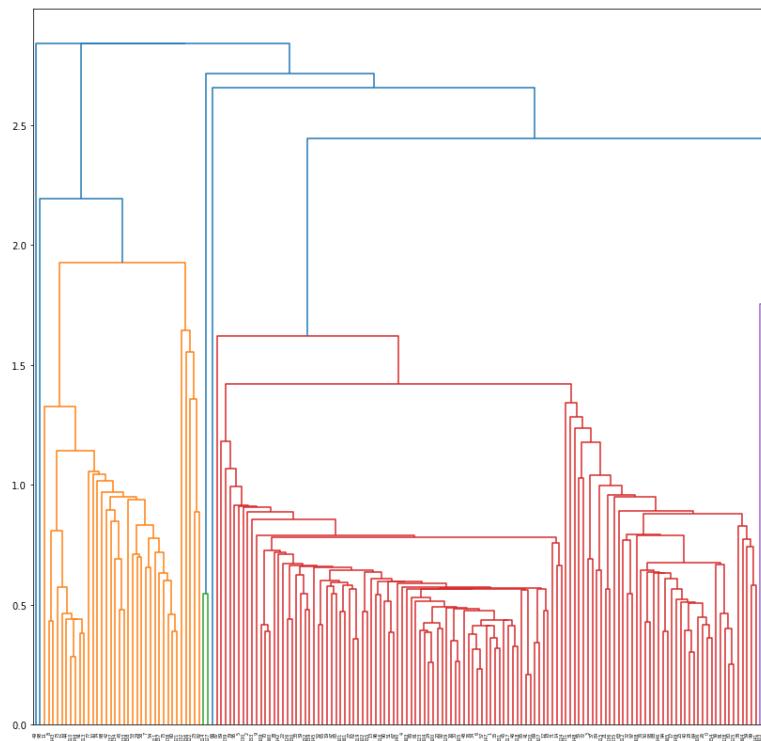


From this we infer that :-

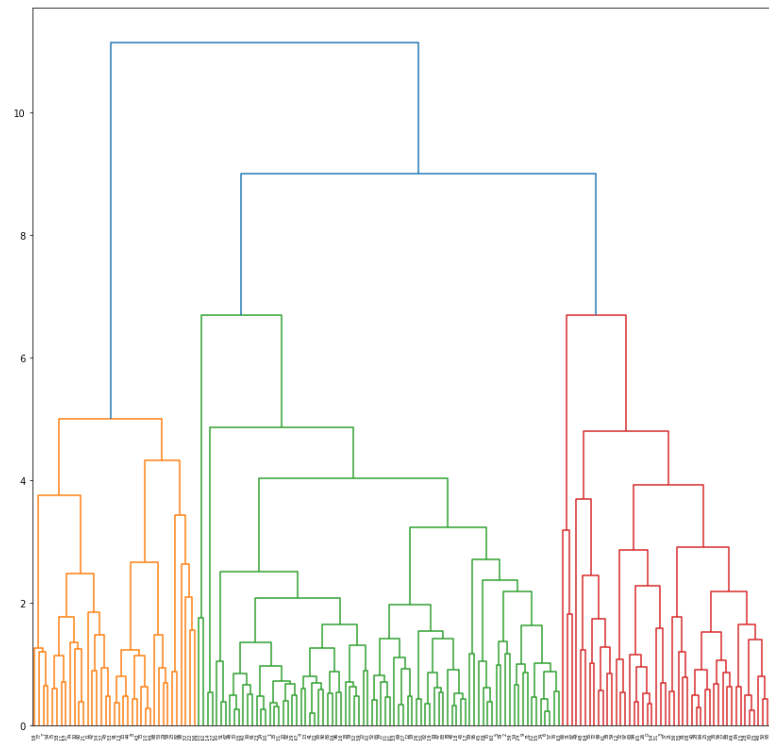
- Countries of cluster 2 have high gdpp ,high income and low child_mort
- Countries of cluster 1 have low gdpp ,low income and high child_mort
- Countries of cluster 0 are in between as it have decent gdpp, income and child_mort .

HIERARCHICAL CLUSTERING DENDROGRAMS

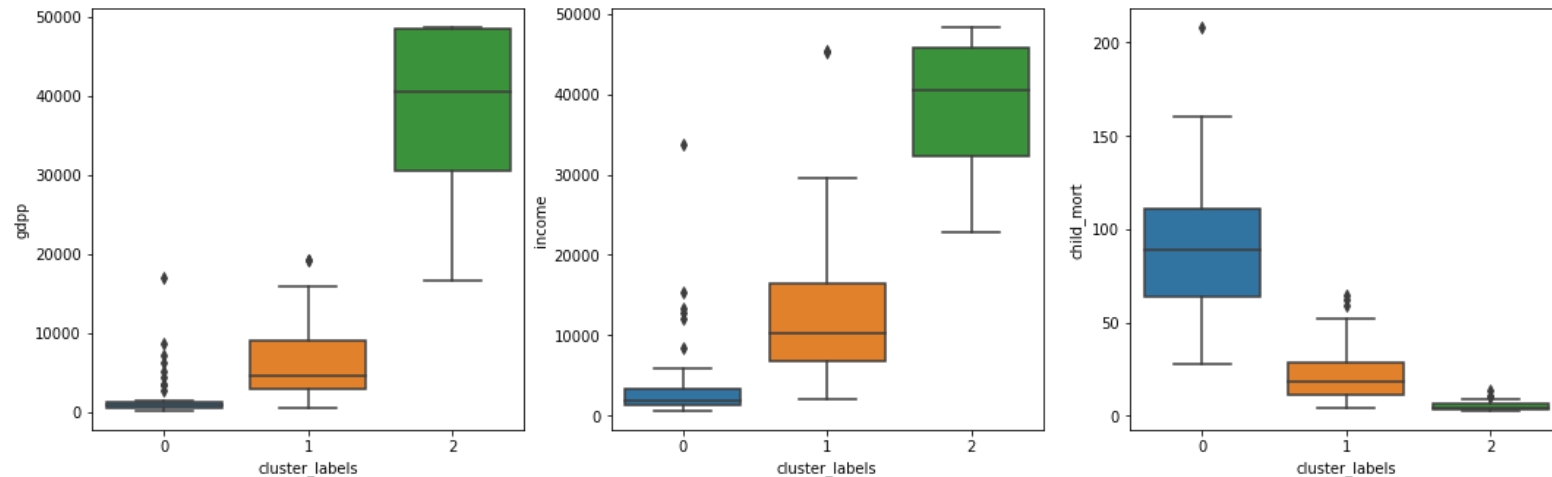
Single Linkage



Complete Linkage



BOX PLOT OF CLUSTERS FROM HIERARCHICAL CLUSTERING



From this we infer that :-

- a) Countries of cluster 2 have high gdp ,high income and low child_mort
- b) Countries of cluster 0 have low gdp ,low income and high child_mort
- c) Countries of cluster 1 are in between as it have decent gdp, income and child_mort .



CONCLUSION

The countries having low gdpp , low income and high child mortality are the countries which are in direst need of Aid.

Top 10 Countries are :

1. Burundi
2. Liberia
3. Congo, Dem. Rep.
4. Niger
5. Sierra Leone
6. Madagascar
7. Mozambique
8. Central African Republic
9. Malawi
10. Eritrea

THANK YOU !

