

HELP International

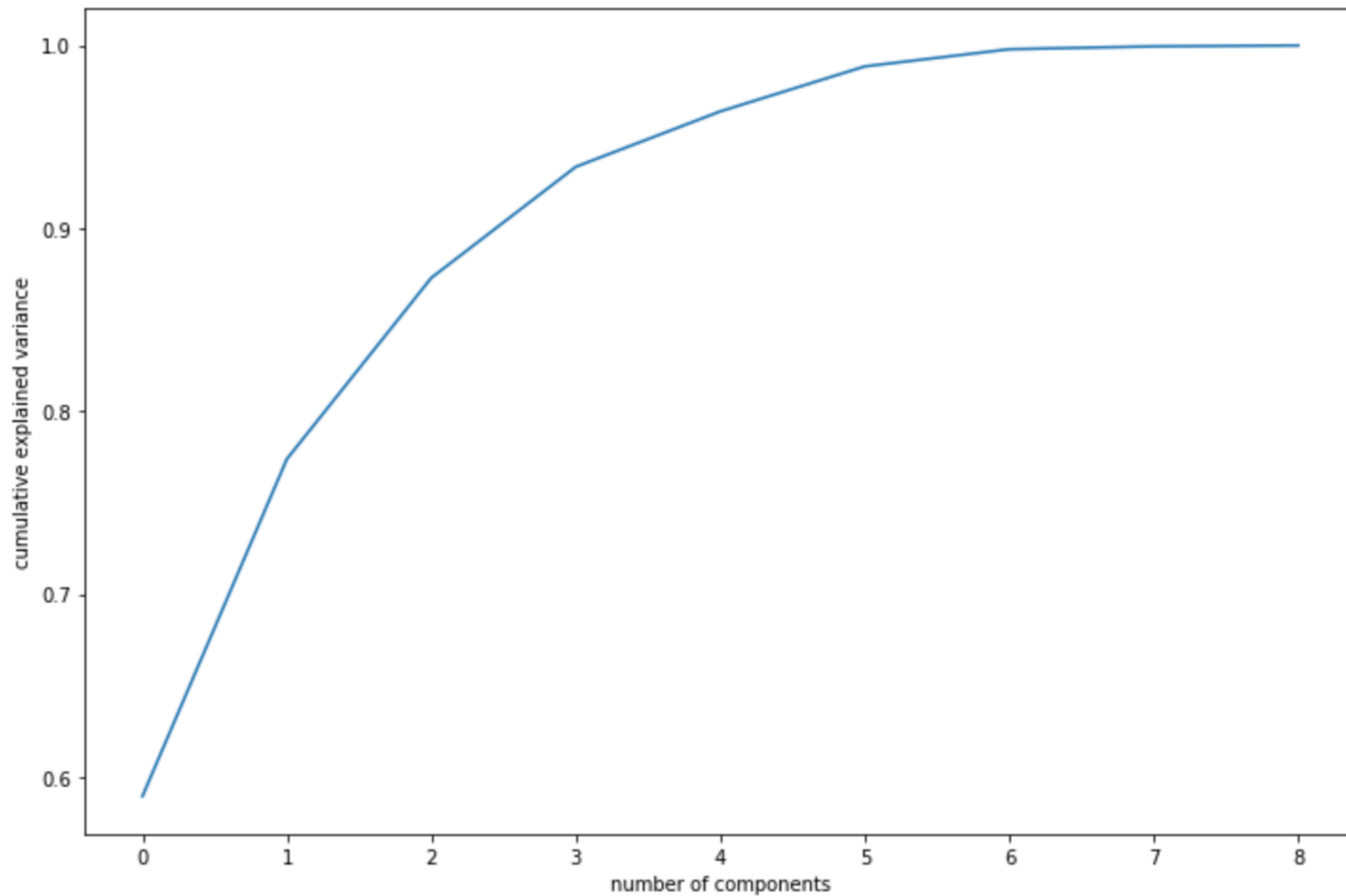
How to use \$10M strategically and effectively

**Categorising using socio-economic and health factors & choosing the countries in
direst need of aid**

ANALYSIS APPROACH:

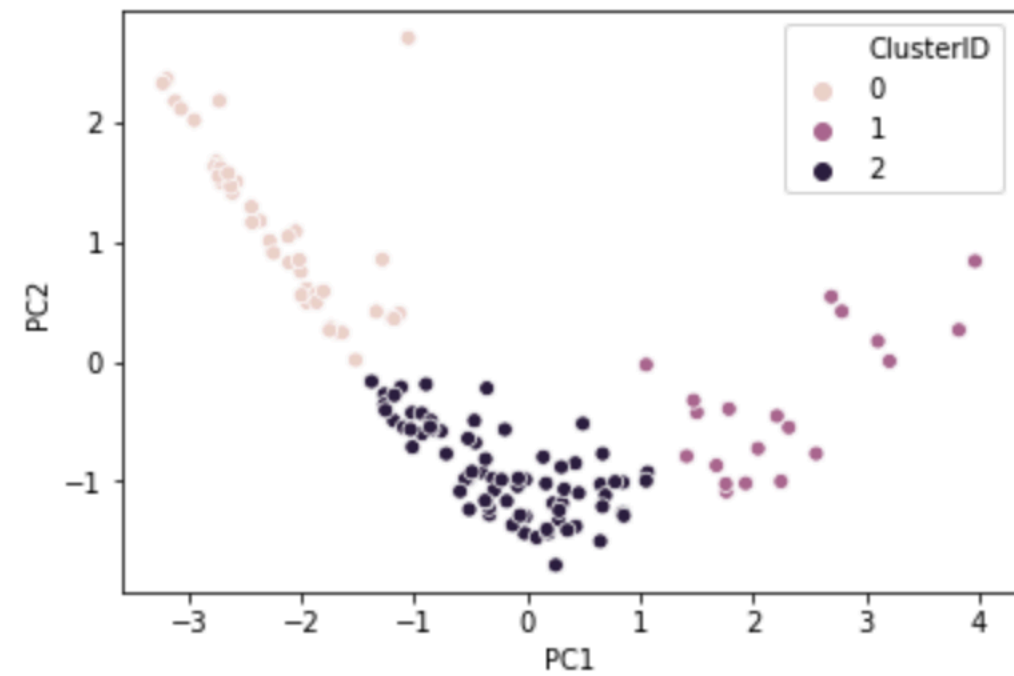
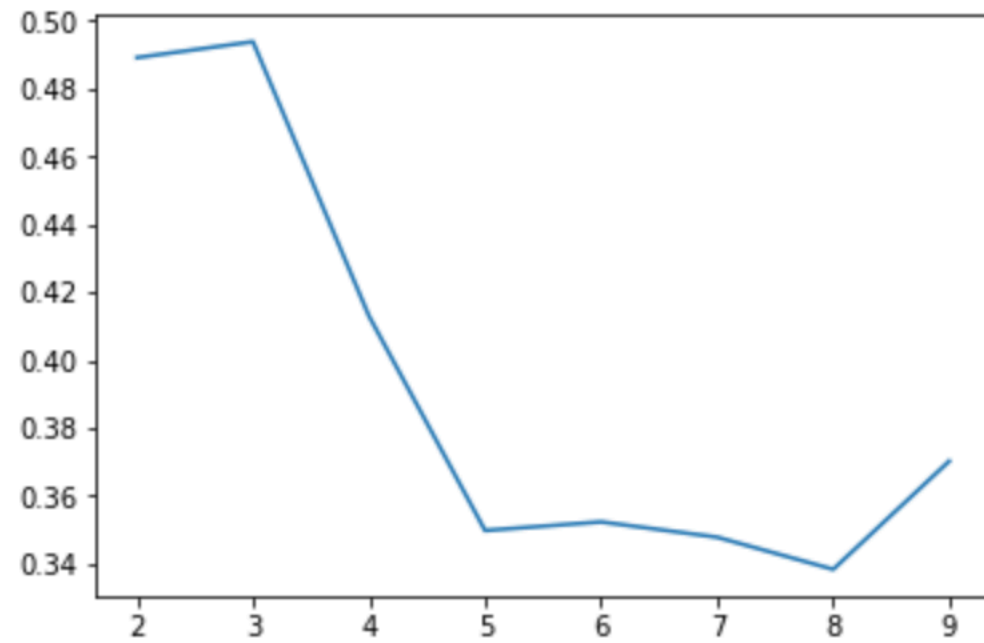
- 1. Perform PCA to find out principal components**
- 2. Observe principal components and finalise number of PCs**
- 3. Perform K-Means clustering on data**
- 4. Find meaningful data from clusters to find out list of countries**
- 5. Confirm analysis using a different K value**
- 6. Perform hierarchical clustering on data**
- 7. Finalise the list of countries**

PRINCIPAL COMPONENT ANALYSIS



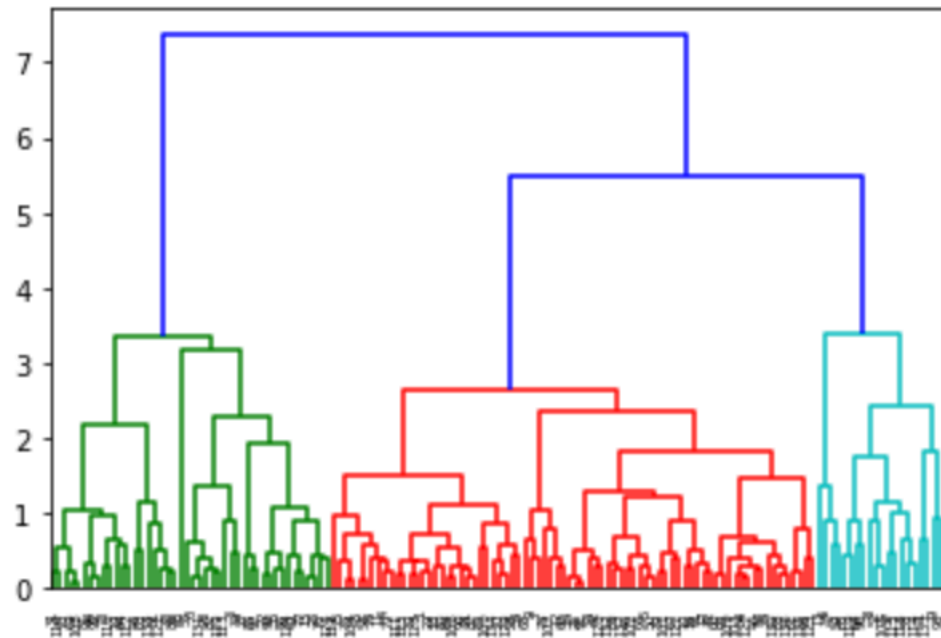
Around 93% of the information is being explained by 4 components

K-MEANS CLUSTERING



3 Clusters are formed

HIERARCHICAL CLUSTERING



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	ClusterID	child_mort	exports	health	imports	income	inflation	life_expec	total_fer	gdpp
0	0	87.447727	940.282841	113.670425	857.833114	4038.295455	9.858523	59.825000	4.977500	1922.818182
1	1	22.417105	2616.788007	383.481663	2858.415672	11405.526316	6.190250	72.867105	2.265658	5890.947368
2	2	5.780000	15278.950000	2498.288000	13892.205000	36900.000000	3.272700	79.085000	1.821500	30690.000000

FINAL LIST OF COUNTRIES WHICH SHOULD BE GIVEN FUNDING :

1. Burundi
2. Congo, Dem. Rep.
3. Guinea
4. Malawi
5. Sierra Leone