Pakistan aisaa kion hai

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Contents

0.1 Introduction

To find the answer of "Pakistan aisaa kion hai", i utilize large data-set provided by Gapminder. Which include many indicators (columns) providing data of many countries. This data-set of countries was not just of one year instead it starts from 1952 till 2012.

Competition was to separate Pakistan data from others and to rank Pakistan to see where it lies in comparison with other and what indicators affecting most to it. So i divided the work in smaller pieces, working with each indicator separately. I plotted graphs of each indicators year by year, which elaborates the position of Pakistan with respect to other countries in that year.

In the end, i combined the result of each year with a self made algorithm and plotted a one single line graph having two lines, one of Pakistan and other of countries on average, which clearly elaborated where Pakistan was standing with respect to other countries in that specific year.

0.2 Data

The data-set is provided by Gapminder[1], consist of indicators in rows and countries in columns and it repeats itself on years (1952-2012). It includes various indicators starting from Agricultural land till yearly Co2 emission, these are 49 in number and each contain data of there respective country.

0.3 Method of Analysis

- Year 1952, i computed average of an indicator and also seperated pakistani value from that indicator as a result i ended up with 2 values so i ploted a barchart of it.
- Did same thing with all other indicators and plotted their bar charts too. As a result, i got 49 barcharts of each indicator.
- Till now, i was done with barcharts of 1952.
- Then i used those computed values that are pakistani seperated values and average values.
- I declare 2 variables, one for pakistani computed value and other for countries on average value in 1952. i initialize them with a default value of 10.

- Since each indicator was giving two values i.e. pak value and average value so i compared both.
- If pak value was greater so it was being pass to a funtion and if opposite, so average value was being passed.
- Function inshort returns 0 if being greater has negative impact or 1 if positive.
- If pak value was being passed and function returns 0 so we subtract 1 from pakistani declared variable and if 1 returns so we add 1 in that variable.
- If average value is being passed so same process applies but then addition and subtraction was done in countries on average variable.
- Moving through all 49 indicators, some indicators do addition in those variables and some do subtraction and at the end, we have 2 variables having some computed value.
- Since now, we are working only for 1952 and our accomplishments are 49 barcharts and 2 variables(pak and countries on averagae) having some computed values.
- Now, we did the same process with all other years (1952-2012).
- We know each year has 2 variables of average and pakistan so we plotted our last desired line graph with years on x-axis and those values on y-axis.

  The above lines describe algorithm precisely and its explanation with figures is down below

0.3.1 Asymptotic Analysis

let suppose, the total number of entities in a column of an indicator in particular year are 'c'. For computing a bar chart of one indicator, we compute average in linear time(which is c) and for pakistan data of that indicator, we surf half of that column almost that is C/2. Time complexity = $(c^2)/2$

let say total indicators are 'i' so for whole computation, we do

Time complexity = $(c^2)/2 * i$

we are known to 'i' and 'c' values so we plug in i=49 and c=223 Time complexity = 1218360 we are doing these many steps to compute all bar charts of one year.

but for computing our final graph we iterate above equation over another loop i.e. of year (y=16). Time complexity = $(c^2)/2 * i * y = 19493768$

0.3.2 Brief

Actually, my concern was to plot Pakistan in comparison with countries on average so i started from a single indicator let say Life Expectancy in 1952.

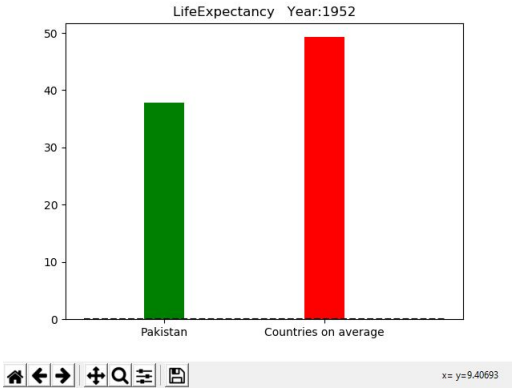

Figure 1: Life Expectancy (1952)

I computed the average of that indicator and plotted a bar graph of between Pakistan and countries on average as shown in Figure 1. I did the same work with rest of 49 indicators too and plotted there bar graphs of that year, which is 1952.

Till now, i plotted 49 bar graphs like in figure 1 of 49 different indicators and the year is 1952. I repeated the same work with other years and got there bar graphs too of 49 each. For an idea, let me show you some bar graphs from different years and let say, indicator is infant mortality.

In the last method, my idea was to represent Pakistan and countries on average on a single line graph. This graph will tell that e.g. in 1952, Pakistan was below the average countries performance or above. It will also represent the increasing and decreasing performance between two particular years. Have a look at Figure 5

In making a single line graph i.e. Figure 5. i was already done with individual graphs of each year. So what i did, i made two variable, one of Pakistan and other of countries and initialize them with a default number of 10. Now lets suppose we are working with year 1952 so we started with first indicator i.e. Agricultural Land, if Pakistan has more agricultural land than countries on average then we increment the Pakistan's variable if not then we increment the countries variable. In the same way, we did this with other indicators till we hit the last 50th indicator. Note that there were some indicators with missing data so i only choosed those columns which must contain pakistani data as we were to compare with it.

Now, i end up with two variables having two different values but these values were of 1952, so i did the same procedure with other years and instead of making there variables too, i started pushing them in a list named Pak-list and countries-list.

In the end, I plotted the values of these two list against years on x-axis (Figure 5). It clearly states the rank or performance of Pakistan compared to

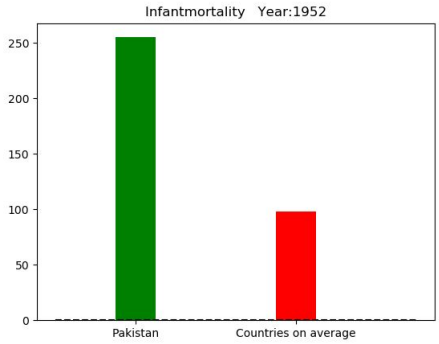

Figure 2: Infant Mortality (1952)

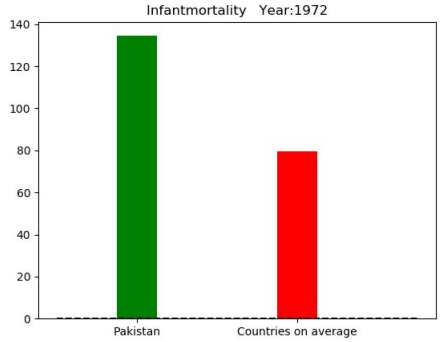

Figure 3: Infant Mortality (1972)

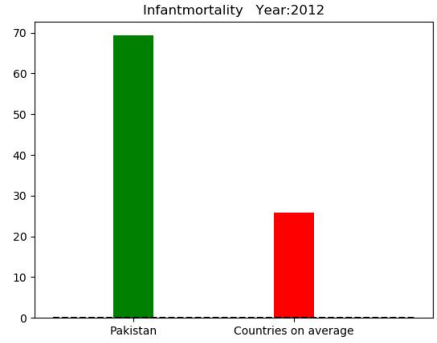

Figure 4: Infant Mortality (2012)

others.

0.4 Analysis

0.4.1 In 1952:

During this year, Pakistan was below average as compared to other countries. All its attributes were below the average values but some became the major cause of downfall of Pakistan. These attributes included income per person, infant mortality and total population.

From Figure 6, you can see a huge difference between Pakistan and the world. Obviously, the reason is poor country with lack of technology and opportunities. Infant Mortality was also a big reason as from figure 7, a huge difference can

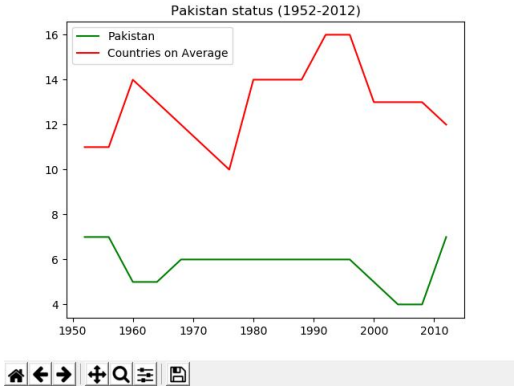

Figure 5: Pakistan vs Countries (1952-2012)

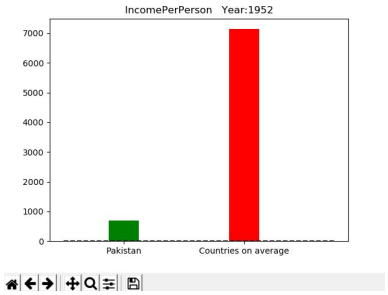

Figure 6: Income per person

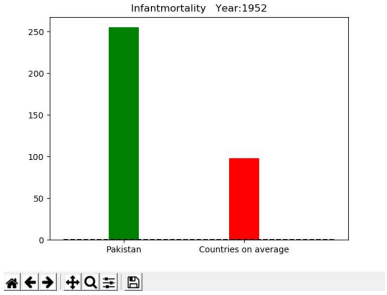

Figure 7: Infant Mortality

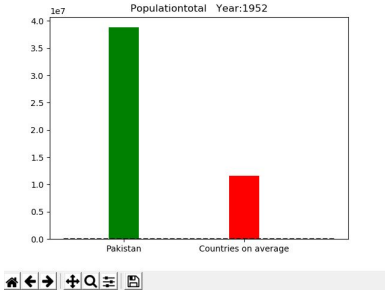

Figure 8: Population

be seen and it includes all health issues and accidents and the last intense indicator is population. A developing country with low industrial development, low heath, low human development and a huge population directly leads toward poor situation (Figure 8). Rest of the indicators are shown in figure 9. Some

indicators may seems missing as i didn't counted those having missing values, specially Pakistani values.

Indicators	Pakistan	Countries on Average
ChildrenPerWoman	6.6	5.551255496421528
DemocracyScore	5.0	-2.31390134529148
IncomePerPerson	684.5971438	7137.233629518383
Infantmortality	255.2	97.89468329165923
LifeExpectancy	37.838	49.27439013452917
Populationtotal	38809200.0	11609660.28251121
Populationdensity	48.749	156.00915246636777

Figure 9: 1952

0.4.2 In 1956:

In 1956, Situation was same as in 1952 with few fluctuation in data values and interestingly, major contributing indicators in downfall remain the same.

Other indicators are listed in figure 13.

0.4.3 In 1960:

0.4.4 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Medical Doctors
- GDP per Capita

You can visualise their respective bar charts by running the python code provided.

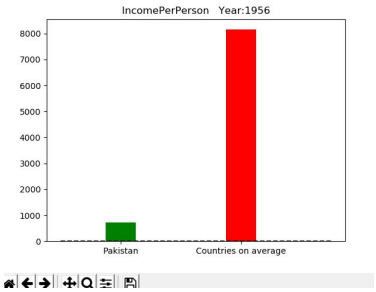

Figure 10: Income per person

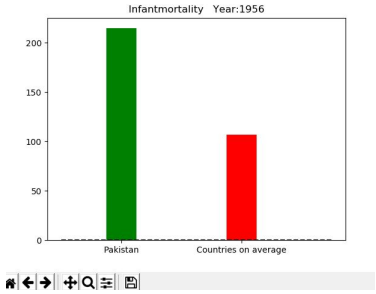

Figure 11: Infant Mortality

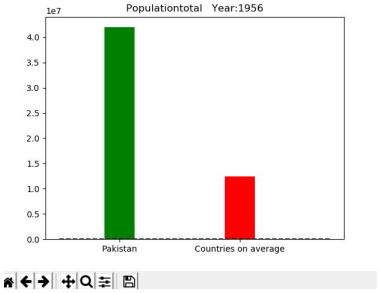

Figure 12: Population

Indicators	Pakistan	Countries on Average
ChildrenPerWoman	6.6	5.603317832452913
DemocracyScore	8.0	-1.9147982062780269
IncomePerPerson	733.7974462	8149.337403082059
Infantmortality	214.7	106.88292963946185
LifeExpectancy	42.357	51.3780102421524
Populationtotal	41973583.0	12465141.322869955
Populationdensity	52.724	165.14944394618837

Figure 13: 1952

0.4.5 In 1964:

Indicators	Pakistan	Countries on Average
AgriculturalLand	30.80375675	38.63550637567265
ChildrenPerWoman	6.6	5.562901088139011
DemocracyScore	1.0	-1.8878923766816142
GDPpercapita	219.922976	3403.2157505467762
IncomePerPerson	870.8437414	10182.212656216137
Infantmortality	160.8	94.7997757847534
Inflation	5.040124413	9.466930327246635
LifeExpectancy	49.807	55.278254349775814
Populationgrowth	2.527797079	2.30175287070852
Populationtotal	50678979.0	14405642.901345292
Populationdensity	63.659	185.19908968609852

Indicators	Pakistan	Countries on Average
ChildrenPerWoman	6.6	5.6299357514266655
DemocracyScore	-7.0	-1.9422222222222223
GDPpercapita	187.4651214	2905.9522520186215
IncomePerPerson	744.1797942	8937.61265388978
Infantmortality	184.2	85.96471111111109
LifeExpectancy	46.413	53.29725671111113
Medianage	21.818	21.504119999999993
MedicalDoctors	0.18529585	0.4098645524488885
Populationgrowth	2.339101101	2.3330107299688896
Populationtotal	45920204.0	13281612.99111111
Populationdensity	57.682	175.09455111111106
TotalGDPUS	8608436616.0	55174192058.22667

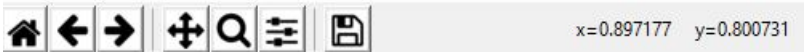

Figure 14: 1960

0.4.6 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Teen Fertility Rate

Visualise their respective bar charts by running the python code provided.

0.4.7 In 1968:

Indicators	Pakistan	Countries on Average
AgriculturalLand	31.43809672	38.85681510066368
ChildrenPerWoman	6.6	5.387294437080717
DemocracyScore	1.0	-2.2645739910313902
Exports	9.159165928	26.68853500879372
GDPpercapita	261.5648227	3951.6020732421493
Imports	14.7708518	26.431320732336292
IncomePerPerson	981.7547938	11600.581795711216
Infantmortality	145.2	84.5934529147982
Inflation	1.898539903	6.088179008246634
LifeExpectancy	52.405	56.85179461883411
Oilconsumptionperperson	0.087739241	1.2957355788609892
Populationgrowth	2.660704787	2.1765674651793723
Populationtotal	56257610.0	15616261.896860987
Populationdensity	70.667	192.46041255605365
TotalGDPUS	14715011785.0	85748221113.80855

Figure 16: 1964

0.4.8 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Exports
- Oil Consumption per person

Visualise their respective bar charts by running the python code provided.

0.4.9 In 1972:

Indicators	Pakistan	Countries on Average
AgriculturalLand	31.27464716	38.82575250444841
ChildrenPerWoman	6.605	5.172743289017939
CO2Emissions	0.301624681	4.879313433538118
DemocracyScore	4.0	-2.8251121076233185
EnergyUsePerPerson	0.278876724	1.774706815426009
Exports	11.77431686	27.389786593085212
GDPpercapita	279.0451104	6429.3240938659155
Imports	16.98249376	29.160391735520168
IncomePerPerson	1049.938981	13527.037109628704
Infantmortality	134.5	79.6538116591929
Inflation	6.209193991	8.205888543520182
LifeExpectancy	54.505	58.35214295964127
Oilconsumptionperperson	0.056636299	1.3431761750762323
Populationgrowth	2.775184113	2.2014689939730947
Populationtotal	62751275.0	16942268.044843048
Populationdensity	78.824	201.8755739910312
Ratioofgiristoboysinprimaryandsecondaryeducation	35.236	82.2670044843051
Renewablewater	3583.668	281283.17868878925
Residentialelectricityuseperperson	9.161281824	384.156940424153
TotalGDPUS	1751436463.0	104543338716.0276

Figure 17: 1972

0.4.10 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Exports
- Oil Consumption per person
- Co2 Emission
- Energy use per person
- Renewable water

- Residential Electricity use per person
- Ratio of Girls to Boys in primary and secondary education

Visualise their respective bar charts by running the python code provided.

0.4.11 In 1976:

Indicators	Pakistan	Countries on Average
AgriculturalLand	32.11913657	38.918922126331836
Cellphones	0.0	0.0
ChildrenPerWoman	6.608	4.934239873008965
CO2Emissions	0.323308939	4.657974264928251
DemocracyScore	8.0	-2.7937219730941703
EnergyUsePerPerson	0.291504675	1.8897274925874417
Exports	10.72160504	32.98382238878475
GDPpercapita	301.1606918	7364.910611353812
Imports	19.37401373	36.38678146176231
IncomePerPerson	1156.114932	14729.83631631928
Infantmortality	127.1	73.52152466367717
Inflation	11.8558235	17.188643252542615
LifeExpectancy	56.477	59.783167533632266
Oilconsumptionperperson	0.057495078	1.2770911137264572
Populationgrowth	3.090656476	2.088229497134528
Populationtotal	70632133.0	18270472.784753364
Populationdensity	88.723	212.8244035874438
Ratioofgiristoboysinprimaryandsecondaryeducation	40.185	86.63139910313912
Residentialelectricityuseperperson	12.33609197	493.1779027299143
TotalGDPUS	21271622035.0	97632616065.23936

Figure 18: 1976

0.4.12 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Exports
- Oil Consumption per person
- Co2 Emission

- Energy use per person
- Renewable water
- Residential Electricity use per person
- Ratio of Girls to Boys in primary and secondary education

Visualise their respective bar charts by running the python code provided.

0.4.13 In 1980:

Indicators	Pakistan	Countries on Average
AgriculturalLand	32.8196347	39.24873057991999
BodyMassIndex_M	21.53642	23.11468782222223
BodyMassIndex_F	21.77512	23.474165644444437
Cellphones	0.0	0.0021835904711111111
ChildrenPerWoman	6.535	4.717569768337778
CO2Emissions	0.398359284	4.758622149377782
DemocracyScore	-7.0	-2.3066666666666666
EnergyUsePerPerson	0.308450395	2.055232942577778
Exports	12.4872847	37.5477216622756
Femalesaged25to54labourforceparticipationrate	11.0	55.97199992750221
GDPpercapita	339.4258819	7281.160356275556
Imports	24.09991671	45.74343391774218
IncomePerPerson	1334.099512	15564.343763485776
Infantmortality	121.3	63.8826666666667
Inflation	9.062117371	20.420987574595568
LifeExpectancy	58.023	61.235578488888894
Medianage	18.257	21.810986666666654
MedicalDoctors	0.2852	1.1465635447377778
Oilconsumptionperperson	0.063024377	1.293624292346666
Populationgrowth	3.360148197	2.095316982515556
Populationtotal	80492664.0	19412089.635555554
Populationdensity	101.109	221.20205333333333
Ratioofgirlstoboysinprimaryandsecondaryeducation	45.296	87.90333733333332
Residentialelectricityuseperperson	27.66309184	605.4310700146143
TotalGDPUS	27321293469.0	109260287693.98088

Figure 19: 1980

0.4.14 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Exports
- Energy use per person

- Ratio of Girls to Boys in primary and secondary education
- Cellphones
- Female aged 25 to 54 labour force participation
- Medical Doctors
- GDP per Capita

Visualise their respective bar charts by running the python code provided.

0.4.15 In 1984:

Indicators	Pakistan	Countries on Average
AgriculturalLand	32.85855127	39.345637318736 58
BodyMassIndex_M	21.57176	23.345353660714288
BodyMassIndex_F	22.03765	23.81821700892856
Cellphones	0.0	0.01694551828125
ChildrenPerWoman	6.436	4.474370049776787
CO2Emissions	0.464270907	4.269423603723209
DemocracyScore	-7.0	-2.3973214285714284
EnergyUsePerPerson	0.3320974	2.0846208126874997
Exports	11.07038959	33.42659735726339
Femalesaged25to54labourforceparticipationrate	12.60000038	57.25714286709824
GDPpercapita	381.8105677	6113.7645458044635
Imports	22.6261363	40.522688271999996
IncomePerPerson	1519.105683	15529.571343731692
Infantmortality	115.9	57.40803571428573
Inflation	9.65354905	35.56724615639729
LifeExpectancy	59.251	62.833888392857126
Oilconsumptionperperson	0.077410385	1.2791402244419616
Populationgrowth	3.416609179	2.0920141736250004
Populationtotal	92300277.0	20931546.67410714
Populationdensity	115.941	236.15533035714287
Ratioofgiristoboysinprimaryandsecondaryeducation	45.561	88.76536160714282
Residentialelectricityuseperperson	47.00821139	719.0785277918703
TotalGDPUS	3524122159.0	117139743448.62997

Figure 20: 1984

0.4.16 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- Total GDPUS
- Inflation

- Exports
- Energy use per person
- Ratio of Girls to Boys in primary and secondary education
- Cellphones
- Co2 Emission
- Female aged 25 to 54 labour force participation
- GDP per Capita

Visualise their respective bar charts by running the python code provided.

0.4.17 In 1988:

Indicators	Pakistan	Countries on Average
AgriculturalLand	34.79140722	39.63690009056975
BodyMassIndex_M	21.63534	23.55767308035714
BodyMassIndex_F	22.26827	24.124521383928585
Cellphones	0.0	0.12348123688392858
ChildrenPerWoman	6.234	4.2140762721250065
CO2Emissions	0.55261532	4.619286633321427
DemocracyScore	8.0	-1.6116071428571428
EnergyUsePerPerson	0.368273119	2.2285134849241084
Exports	13.5864232	31.09252360126781
Femalesaged25to54labourforceparticipationrate	12.69999981	59.31071403178565
GDPpercapita	435.1088632	6364.202169762053
Imports	21.67018514	41.266905283718756
IncomePerPerson	1760.849258	16778.621041827246
Infantmortality	109.4	50.975
Inflation	9.617561416	92.62142580300451
LifeExpectancy	60.525	64.06140178571427
Oilconsumptionperperson	0.091111511	1.3538973895044641
Populationgrowth	3.2032277	1.9836122797008928
Populationtotal	105332464.0	22464858.72767857
Populationdensity	132.311	251.57442410714296
Ratioofgirlstoboysinprimaryandsecondaryeducation	49.03	90.66252678571436
Residentialelectricityuseperperson	72.90209791	830.9912500676077
TotalGDPUS	45831088671.0	132245242135.26836

Figure 21: 1988

0.4.18 Poor Situation:

- Income per person
- Infant Mortality

- Total Population
- Total GDPUS
- Inflation
- Exports
- Energy use per person
- Ratio of Girls to Boys in primary and secondary education
- Cellphones
- Co2 Emission
- Female aged 25 to 54 labour force participation
- GDP per Capita

Visualise their respective bar charts by running the python code provided.

0.4.19 In 1992:

Indicators	Pakistan	Countries on Average
AgriculturalLand	33.80552096	40.179768089385675
BodyMassIndex_M	21.7251	23.788185067264585
BodyMassIndex_F	22.50821	24.429963587443947
Cellphones	0.011439679	0.5716624965695069
ChildrenPerWoman	5.767	3.912718411049329
CO2Emissions	0.616754059	4.930864515668164
DemocracyScore	8.0	1.7354260089686098
EnergyUsePerPerson	0.398520399	2.309354137403588
Exports	17.35930183	33.612643732295986
Femalesaged25to54labourforceparticipationrate	15.0	60.56053813757845
GDPpercapita	481.8264339	6227.222683384758
Hightotechnologyexports	0.033875108	8.746849504623315
Imports	20.52855782	43.11239653660985
IncomePerPerson	1971.829464	17147.843835803134
Infantmortality	102.4	46.264753363228664
Inflation	10.05708449	109.03332389416147
LifeExpectancy	61.718	64.88186995515694
MedicalDoctors	0.503099978	1.8762986601121066
Oilconsumptionperperson	0.10511794	1.2839466562959632
Populationgrowth	2.609982226	1.463782364816143
Populationtotal	118010303.0	24065091.24663677
Populationdensity	148.236	266.15421524663685
Renewablewater	1892.021	225429.47968179363
Residentialelectricityuseperperson	109.7103249	857.0059288108707
Taxrevenue	12.99398276	14.486714236098658
TotalGDPUS	56860483455.0	147071360091.75995

Figure 22: 1992

0.4.20 Poor Situation:

- Income per person

- Infant Mortality
- Total Population
- Total GDPUS
- Inflation
- Exports
- Energy use per person
- Cellphones
- Female aged 25 to 54 labour force participation
- GDP per Capita
- High technology exports
- Medical Doctors
- Residential electricity use per person
- Renewable water
- Oil consumption per person

Visualise their respective bar charts by running the python code provided.

0.4.21 In 1996:

Indicators	Pakistan	Countries on Average
AgriculturalLand	34.6097966	41.08159100111608
BodyMassIndex_M	21.87969	24.024642410714296
BodyMassIndex_F	22.75825	24.729084419642845
Cellphones	0.052041764	3.0942417857857154
ChildrenPerWoman	5.208	3.6253762499999977
CO2Emissions	0.722354388	5.1180286057142865
DemocracyScore	8.0	2.0535714285714284
EnergyUsePerPerson	0.428518008	2.3941760292812515
Exports	16.90310178	37.10344271067408
Femalesaged25to54labourforceparticipationrate	14.89999962	61.931696538348184
GDPpercapita	505.2459234	6856.550980436426
Governmenthealthspendingperpersontotal	4.07465808	366.1520686856251
Hightotechnologyexports	0.032507522	8.843660272218747
Imports	21.42702506	45.50577400925898
IncomePerPerson	2081.248333	18313.242884513827
Infantmortality	95.1	43.02741071428572
Inflation	8.373609998	72.692168490183
Internetusers	0.00299173	1.4312725064285712
LifeExpectancy	62.776	65.3440223214286
Oilconsumptionperperson	0.126605026	1.2675902281741092
Populationgrowth	2.627662186	1.5679660047857147
Populationtotal	130737306.0	25383985.441964287
Populationdensity	164.223	278.7514285714287
Residentialelectricityuseperperson	134.3976398	930.0794163524563
Taxrevenue	13.81547638	16.837530709236
TotalGDPUS	66054490892.0	161460014482.8675
TotalhealthspendingperpersonUS	15.02545713	519.0016281384375

Figure 23: 1996

0.4.22 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- GDP per capita
- Energy use per person
- Cellphones
- Co2 Emission
- Female aged 25 to 54 labour force participation
- Government health spending per person total
- High technology exports
- Internet users
- Oil consumption per person
- Residential Electricity use per person
- Total health spending per person US

Visualise their respective bar charts by running the python code provided.

0.4.23 In 2000:

Indicators	Pakistan	Countries on Average
AgriculturalLand	34.96004566	41.26520405936442
BodyMassIndex_M	22.01724	24.30866848888889
BodyMassIndex_F	22.97781	25.078168266666662
Cellphones	0.212073313	15.816951913648886
ChildrenPerWoman	4.474	3.3850141333333346
CO2Emissions	0.736493581	5.1468481355466675
DemocracyScore	-6.0	2.897777777777778
EnergyUsePerPerson	0.439284017	2.424410990759999
Exports	13.44132462	40.91983727965778
Femalesaged25to54labourforceparticipationrate	20.39999962	63.61511133853333
Forestarea	21160.0	202128.50488888889
GDPpercapita	511.7025555	8004.653162243558
Governmenthealthspendingperpersontotal	3.16096413	353.5010073426222
Hightotechnologyexports	0.38790306	11.53515299116
Imports	14.6882827	46.35742342797777
IncomePerPerson	2086.457879	20396.61573734846
Infantmortality	87.6	39.193333333333335
Inflation	24.89115055	14.22821412534666
LifeExpectancy	63.854	66.48456444444442
Medianage	19.021	25.20156000000001
Oilconsumptionperperson	0.129807054	1.3158389220355535
Populationgrowth	2.282334206	1.6792710049466677
Populationtotal	144522192.0	26645877.426666666
Populationdensity	181.539	294.1877511111112
Residentialelectricityuseperperson	155.5872453	951.334143278639
Taxrevenue	10.08899115	16.268460775551105
Teenfertilityrate	49.0	60.16020977777778
TotalGDPUS	73952374970.0	180215635060.02267
TotalhealthspendingperpersonUS	14.87749386	507.2483977057776

Figure 24: 2000

0.4.24 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- GDP per capita
- Energy use per person
- Cellphones
- Co2 Emission
- Female aged 25 to 54 labour force participation
- Government health spending per person total
- High technology exports
- Oil consumption per person
- Residential Electricity use per person
- Total health spending per person US

- Total GDP US
- Forest Area
- Exports

Visualise their respective bar charts by running the python code provided.

0.4.25 In 2004:

Indicators	Pakistan	Countries on Average
AgriculturalLand	35.06382316	41.335751351928906
BodyMassIndex_M	22.12042	24.642679200000014
BodyMassIndex_F	23.17841	25.467327733333335
Cellphones	3.222703627	36.74791059772888
ChildrenPerWoman	3.873	3.2125955555555543
CO2Emissions	0.844396323	5.467573795186662
DemocracyScore	-5.0	3.3155555555555556
EnergyUsePerPerson	0.467925934	2.4024553405111124
Exports	15.6668995	41.70247650181776
Femalesaged25to54labourforceparticipationrate	20.0	65.54755570320003
GDPpercapita	562.283992	8525.977700456888
Governmenthealthspendingperpersontotal	4.3236873	571.5250808469332
Hightotechnologyexports	1.092766992	9.466717709768885
Imports	14.63322921	47.46397850967107
IncomePerPerson	2269.738685	22028.497275945334
Infantmortality	81.0	33.869155555555565
Inflation	7.749247242	7.560350586951111
Internetusers	6.164320985	18.977011451511103
LifeExpectancy	64.916	67.5323155555555
MedicalDoctors	0.739	0.9014231352711125
Murder	5.146722317	11.611428037315553
Murderedmen	6.089199543	19.196886578871116
Murderedwomen	4.172894955	4.021160342835552
Oilconsumptionperperson	0.10261769	1.387542689244446
Populationgrowth	1.760674183	1.5607486250044444
Populationtotal	155860066.0	27970797.924444444
Populationdensity	195.781	301.0064666666668
Ratioofgirlstoboysinprimaryandsecondaryeducation	73.385	95.53434222222218
Residentialelectricityuseperperson	173.4083137	1010.4772376723922
Taxrevenue	10.28454521	16.92157550338224
Teenfertilityrate	37.0	54.123240888888894
TotalGDPUS	87637620104.0	2057837742813.93198
Totalhealthspendingperpersonus	17.5233625	805.5245793374226

Figure 25: 2004

0.4.26 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- GDP per capita
- Energy use per person
- Cellphones
- Co2 Emission

- Female aged 25 to 54 labour force participation
- Government health spending per person total
- High technology exports
- Oil consumption per person
- Residential Electricity use per person
- Total health spending per person US
- Total GDP US
- Internet Users
- Exports
- Ratio of Girls to Boys in primary and secondary education

Visualise their respective bar charts by running the python code provided.

0.4.27 In 2008:

0.4.28 Poor Situation:

- Income per person
- Infant Mortality
- Total Population
- GDP per capita
- Energy use per person
- Co2 Emission
- Government health spending per person total
- High technology exports
- Residential Electricity use per person
- Total health spending per person US
- Total GDP US
- Internet Users
- Exports
- Ratio of Girls to Boys in primary and secondary education

- Poverty
- Tax Revenue
- Teen fertility rate

Visualise their respective bar charts by running the python code provided.

0.4.29 In 2012:

Indicators	Pakistan	Countries on Average
ChildrenPerWoman	3.264	2.921320730593609
IncomePerPerson	2681.120782	21622.544180022855
Infantmortality	69.3	25.792237442922374
LifeExpectancy	66.42	70.00171232876713
Populationtotal	179951140.0	31046141.570776254

Figure 26: 2012

0.4.30 Poor Situation:

- Income per person
- Infant Mortality
- Total Population

Visualise their respective bar charts by running the python code provided.

0.5 Results:

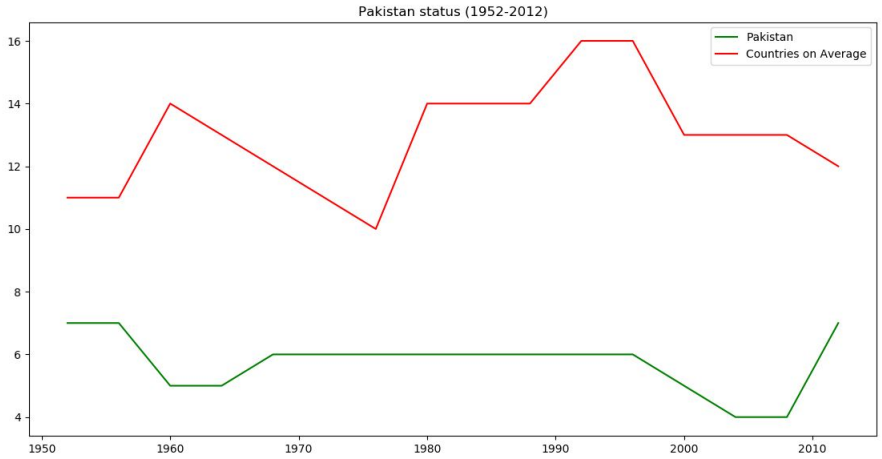

Figure 27: Result

From the Figure, it can clearly seen Pakistan never went above average or even close to average. Reasons are many, which includes Co2 emissions, Infant Mortality, Population Growth, Income per person and some new problem arises with the passage of years. you can see in Analysis part.

From graph, Pakistan did some progress between 1960 to 1970 and 2004 to 2010 but still situation remain very poor and the graph remain flatten most of the time.

0.6 Conclusion:

Question was ***Pakistan aisaa kion hai*** and the answer after my analysis is **Pakistan didn't focus on their year to year issues and instead of solving those, she encountered many more. There are some indicators like agricultural land, population density in which pakistan is better but overall situation is worse. let me explain, in 1952 their were three major problems, Population growth, Infant Mortality and Income per person. With the passage of years many more issue arises like insufficient high tech exports, internet users and more. When we end up at 2012, those 1952 problems are still there with some new one.**

In the end, Pakistan situation was poor and will remain, if we don't focus on our year to year problems.

0.7 Recommendation:

- There were more than 30 bar charts of some years so i didn't included those in report. You can run the python code provided and type the year in console. it will pop up graphs for you.

References

[1] *https://www.gapminder.org/data/.*