Pakistan's Ranking in Social Development: Have We Always Been Backward?

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Consensus is emerging between development thinkers and practitioners that social progress is a necessary pre-condition for sustained economic growth. Social development leads to higher levels of literacy, better health standards and overall improvement in the society's living conditions. In fact, empirical evidence suggests that there is a two-way relationship between economic growth and social development [Ghaus-Pasha *et al.* (1998)]. Economic growth leads to higher revenues for government and higher per capita income, encouraging both public and private spendings on human development. Improvements in social indicators feedback as higher economic growth through enhanced productivity for labour and capital. In other words, well-developed human capital makes a significant contribution to economic growth which, in turn, offers improved welfare and better living conditions.

However, if there is a breakdown in this chain and economic development is not translated into social development, then the pace of economic development eventually suffers. Pakistan is an example of a country where this chain has broken. Despite moderate economic growth of about 5 percent during the last decade or so, the state of social indicators leaves a lot to be desired. Currently, the female literacy rate is 33 percent, being somewhat higher for males at 56 percent; primary school enrolment for females is 55 percent, for males 78 percent; and infant mortality rate is 105 out of 1000. Today, Pakistan is ranked 138 in the human development index by the UNDP (1999) among 174 countries.

The purpose of this paper is to see the state of social development in Pakistan in the international context. A key objective is to see whether the current low level of social indicators is largely a consequence of poor initial conditions or is it due to

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relatively low rate of improvement over time in comparison to other countries? For this purpose we analyse the long-term evolution of social development from 1960 to 1995 using international cross-sectional data on a number of indicators. The sample includes developing countries with relatively low per capita income (below $ 400) and relatively large populations (above 8 million) in 1960. Twenty five countries satisfy this criteria: five from South Asia, seven from other parts of Asia, four from Latin America and nine from Africa. Development ranking of these 25 countries has been generated for 1960, 1970, 1980, 1990 and 1995.

The paper is organised as follows: Section 2 of the paper discusses the choice of the indicators included in the analysis. Section 3 describes the choice of technique used for developing the rankings of countries. The resulting rankings are presented in Section 4, while Section 5 describes proxies of social development. Evolution in Pakistan's ranking is presented in Section 6. Finally, Section 7 summarises the main findings of the paper.

2. CHOICE OF INDICATORS

The human development index (HDI), first published in the UNDP report of 1990, relies on three main indicators to measure the extent of human development in a country. These include income, educational attainment (proxied by literacy rate and combined enrolment rate) and life expectancy. HDI is the most widely used composite index of human development. As such, for the purpose of the cross-country analysis in this report we rely on the same output indicators, with one key exception. Instead of just relying on life expectancy at birth to reflect the state of health of the people in a country, we additionally use infant mortality rate.

In the Human Development Report of 1993 it is argued that infant mortality rate is essentially complementary and highly correlated with life expectancy. However, according to our analysis the rank correlation between life expectancy and infant mortality for the sample countries was only 0.64 in 1960 and 0.85 in 1970, reflecting that in the case of developing countries, the high correlation may not necessarily hold. Therefore, we use both infant mortality rate and life expectancy in the analysis.

To cover the level of educational attainment we select three indicators-adult literacy, primary enrolment rate, and secondary enrolment rate. The literacy rate is a stock measure and is fraught with problem of differences in definition among countries. Therefore, we additionally use two flow measures of primary and secondary enrolment rates. GNP per capita adjusted for purchasing power parity differences in US $ is used to construct the income index.

3. CHOICE OF TECHNIQUE

A number of techniques have been used in the relevant literature for measuring and computing a composite index of human development. The first is the Z-sum

technique which is the sum for a particular country for its Z-score on each indicator. The Z-score is the standardized score, which has zero mean and unit variance. The higher the Z-sum the more developed the country. The second technique computes the taxonomic distance [Noorbakhsh (1998, 1998a)], which is the Euclidean distance from the highest (standardised) values observed for different indicators. The lower the taxonomic distance of a country, the better its position.

The third technique, used for the construction of the HDI, is the unweighted average of the relative distance. This distance is the difference between the actual value of the variable in a country and a minimum value divided by the range of the variable, that is, the difference between the maximum and the minimum values. All three techniques have the problem of assigning equal weight to each development indicator. Further, the taxonomic distance technique is very sensitive to the presence of outliers.

The fourth and the most sophisticated method for indexing a multidimensional phenomenon is the factor analysis (FA) technique [Adelman and Dalton (1971)]. The essential purpose of factor analysis is to describe, if possible, the covariance relationships among many variables in terms of a few underlying, but unobservable, random quantities called factors. Thus the factor analysis model can be described as follows:

$$X_i = a_{i1} F_1 + a_{i2} F_2 + ... + a_{ij} F_j \qquad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad (1)$$

Where,

X_i is the ith indicator.

a_{ij} is called the factor loading and represents the proportion of the variation in X_i which is accounted for by the jth factor.

$\sum a_{ij}^2$ is called the communality and it is equivalent to the multiple regression coefficient in regression analysis.

F_j represents jth factor of component.

Principal Components Analysis (PCA) produces components in descending order of importance, that is, the first component explains the maximum amount of variation in the data, and the last component the minimum. It is often found that the first few components, called principal components, account for a sizeable part of the variation and subsequent components contribute very little. Using factor loadings of these principal components, factor score for each country or unit is computed as follows:

$$(FS)_{kj} = \sum_k a_{ij} * Z_i \quad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad \ldots \qquad (2)$$

Where,

FS_{kj} represents factor score of the kth country and the jth factor.

Z_i is the standardised value of the *i*th indicator.

a_{ij} is the factor loading of the *j*th factor and the *i*th indicator.

To compute weighted factor score (WFS), these individual factor scores are derived from the following equation:

$$(WFS)_k = \sum_k e_j (FS)_{kj} \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad \dots \qquad (3)$$

Where e_j is the eigen value of the factor *j* and depicts the proportion of variation in the data set explained by the factor *j*. This WFS is used as an index for ranking countries on the basis of the general characteristics of the variable-set. This technique has increasingly been used in literature [Ghaus-Pasha *et al.* (1996); Pasha and Hasan *et al.* (1982); Pasha *et al.* (1990); Ogwan (1994); Jamal and Malik (1988)].

In this study, principal components analysis is preferred to transform the indicators into a composite index and the weighted factor score is used to rank the country due to its more appealing characteristics. However, the Z-sum technique is also used, to determine the sensitiveness of the results with respect to the choice of technique for deriving the composite indicator.

Table 1 presents the loadings of each indicator on different factors for each of the years analysed. Some important conclusions emerge. First, infant mortality rate is the only indicator which has consistently loaded on the first factor in all the years analysed. This highlights the importance of this indicator in explaining variations in the level of social development across countries. The inclusion of this indicator in the analysis is, therefore, justified. Second, health related indicators generally dominate the first factor. Data on the indicators, magnitude of weighted factor score and *Z*-sum score for each country are presented in Appendices.

4. RANKING OF COUNTRIES IN TERMS OF SOCIAL DEVELOPMENT

Currently Korea, Sri Lanka, Colombia, Mexico and Thailand are the five most socially developed countries in the sample. (See Table 2). Three of these, Mexico, Sri Lanka and Korea have been in the top five countries throughout the last three decades. Philippines and Peru, which ranked fourth and fifth respectively in 1960, have slipped down to the sixth and seventh rank by 1995. Colombia has climbed up the ladder from six to three during the period of analysis. The fact that Korea and Thailand started with relatively favourable initial positions in 1960 partly explains their spectacular performance subsequently.

The five least developed countries in terms of human development include Afghanistan, Ethiopia, Sudan, Tanzania and Zaire. The countries which have progressed significantly from the bottom during the period of analysis are Nigeria and Nepal. Countries which have experienced a major deterioration in their rank include Zaire and Sudan.

Table 1

Factor Loading Matrix

Variables	Factor I	Factor II	Factor III	Communality
[1 9 6 0]				
Inverse of Infant Mortality Rate	0.910	0.348	0.024	0.950
Life Expectancy at Birth	0.725	0.426	0.442	0.903
Adult Literacy	0.673	0.618	0.265	0.905
School Enrolment, Secondary	0.328	0.888	0.130	0.914
School Enrolment, Primary	0.544	0.722	0.247	0.879
GNP Per Capita	0.125	0.155	0.973	0.987
Percentage of Variation Explained	71.8	14.2	6.3	
Eigen Value	4.308	0.854	0.374	
[1 9 7 0]				
Inverse of Infant Mortality Rate	0.916	0.139	0.324	0.963
Adult Literacy	0.727	0.424	0.448	0.908
Life Expectancy at Birth	0.674	0.533	0.416	0.911
GNP Per Capita	0.194	0.941	0.204	0.964
School Enrolment, Secondary	0.412	0.215	0.859	0.955
School Enrolment, Primary	0.414	0.556	0.635	0.884
Percentage of Variation Explained	76.5	11	5.6	
Eigen Value	4.59	0.66	0.336	
[1 9 8 0]				
Inverse of Infant Mortality Rate	0.889	0.247	0.292	0.936
School Enrolment, Secondary	0.685	0.536	0.248	0.817
GNP Per Capita	0.247	0.917	0.247	0.963
Life Expectancy at Birth	0.511	0.689	0.415	0.908
School Enrolment, Primary	0.235	0.266	0.909	0.951
Adult Literacy	0.575	0.309	0.657	0.857
Percentage of Variation Explained	73.32	9.45	7.78	
Eigen Value	4.399	0.567	0.467	
[1 9 9 0]				
Inverse of Infant Mortality Rate	0.897	0.262	0.204	0.914
GNP Per Capita	0.651	0.449	0.375	0.767
School Enrolment, Secondary	0.408	0.854	0.197	0.935
Life Expectancy at Birth	0.547	0.612	0.501	0.925
Adult Literacy	0.537	0.160	0.797	0.949
School Enrolment, Primary	0.081	0.648	0.728	0.956
Percentage of Variation Explained	73.88	9.74	7.15	
Eigen Value	4.432	0.584	0.429	
[1 9 9 5]				
School Enrolment, Secondary	0.855	0.388	0.078	0.887
Inverse of Infant Mortality Rate	0.794	0.064	0.490	0.875
GNP Per Capita	0.699	0.283	0.527	0.846
School Enrolment, Primary	0.197	0.920	0.261	0.953
Life Expectancy at Birth	0.566	0.641	0.410	0.899
Adult Literacy	0.270	0.396	0.828	0.916
Percentage of Variation Explained	70.9	11.57	7.13	
Eigen Value	4.253	0.694	0.428	

Table 2

Social Development Ranking of Countries, 1960–1995 Ranking by Factor Analysis

Countries[a]	1960	1970	1980	1990	1995
Mexico	1	3	2	3	4
Sri Lanka	2	2	4	2	2
Korea	3	1	1	1	1
Philippines	4	4	5	5	6
Peru	5	6	6	9	7
Colombia	6	5	3	4	3
Brazil	7	8	8	8	9
Thailand	8	9	7	7	5
Turkey	9	7	9	6	8
Iran	10	10	10	12	11
Algeria	11	12	12	11	12
India	12	14	18	15	15
Egypt	13	11	14	13	13
Indonesia	14	13	11	10	10
Morocco	15	15	15	16	16
Bangladesh	16	19	21	21	20
Pakistan	**17**	**18**	**23**	**22**	**18**
Zaire	18	17	19	18	21
Kenya	19	16	13	14	14
Sudan	20	20	22	23	23
Nigeria	21	22	16	17	17
Tanzania	22	21	17	20	22
Nepal	23	23	20	19	19
Ethiopia	24	25	25	24	24
Afghanistan	25	24	24	25	25

[a]Given in descending order in 1960.

An interesting result is the robustness of top rankings, countries in the first nine positions in 1960 are the same in 1995. Therefore, one can draw the conclusion that if a country starts with an advantage in human endowment, it is easier to maintain its relative position. Most of the volatility in rankings is observed among countries at lower initial positions.

It appears that the ranking of countries is not sensitive to the choice of technique used for estimation. This is demonstrated by Table 3. There is a very high

Table 3

Correlation of Countries Rankings Obtained from Different Techniques

	Rank Correlation Coefficient	
Years	Factor Analysis and Z-Sum Technique	Factor Analysis and HDI
1960	0.911	0.989
1970	0.944	0.980
1980	0.997	0.975
1990	0.988	0.965
1995	0.990	0.936

correlation ranging from 0.91 to 0.99 between the ranking of countries obtained using factor analysis and Z-sum scores. The robustness of the results is also illustrated by the high degree of correlation (0.936-0.989) between our ranking and the HDI ranking of UNDP. Table 4 presents ranking of countries using Z-sum scores.

Table 4

Social Development Ranking of Countries 1960–95 Ranking by Z-Sum Score

Countries	1960	1970	1980	1990	1995
Mexico	2	3	2	3	4
Sri Lanka	1	2	3	2	2
Korea	3	1	1	1	1
Philippines	4	4	5	5	6
Peru	8	6	6	9	7
Colombia	5	5	4	4	3
Brazil	6	8	8	8	11
Thailand	7	7	7	6	5
Turkey	9	9	9	7	8
Iran	10	10	10	12	10
Algeria	13	13	12	10	9
India	12	14	17	15	14
Egypt	11	11	14	13	13
Indonesia	14	12	11	11	12
Morocco	15	16	15	16	15
Bangladesh	16	19	21	20	20
Pakistan	**17**	**18**	**23**	**22**	**19**
Zaire	18	17	18	18	21
Kenya	19	15	13	14	16
Sudan	21	21	22	23	23
Nigeria	20	22	16	17	17
Tanzania	22	20	19	21	22
Nepal	23	23	20	19	18
Ethiopia	24	24	25	24	24
Afghanistan	25	25	24	25	25

Presented in descending order according to the weighted factor score in 1960.

5. PROXIES FOR SOCIAL DEVELOPMENT

Variations in the composite human development index across countries are, to a great extent, due to variations in health related indicators—life expectancy and infant mortality rate followed by literacy rate. This is depicted by the high correlation between the composite index and these indicators (see Table 5). This conclusion is in line with the result of Ogwang-Tomson (1994) who suggested that life expectancy is a good proxy for social development. The relatively low value of the GNP per capita coefficient, as compared to health and education, indicates that income is not the best proxy for social development.

Table 5

Rank Correlation between Composite Social Development Index and Individual Indicators

	1960	1970	1980	1990	1995
Life Expectancy at Birth, Total	0.873	0.941	0.922	0.959	0.937
Inverse of Infant Mortality Rate	0.694	0.838	0.895	0.938	0.936
Adult Literacy	0.889	0.889	0.894	0.887	0.882
School Enrolment, Primary	0.889	0.910	0.821	0.829	0.780
School Enrolment, Secondary	0.848	0.867	0.864	0.838	0.736
GNP per Capita	0.743	0.808	0.833	0.858	0.868

6. EVOLUTION OF PAKISTAN'S RANKING

We next turn to the key question raised in this report. Is the low level of human development in the country due to the low initial endowments or has the condition exacerbated due to a relatively low rate of improvement overtime? Table 6 provides a clear answer to the question. Pakistan was relatively backward in 1960 with a ranking of 17. This ranking deteriorated further to 18 in 1970 and to 23 in 1980. Since then there has been some improvement with the ranking falling to 22 in 1990 and 18 in 1995. It appears that the Pakistani case is one of poorer initial conditions (in 1960) which have been clearly exacerbated by a low rate of improvement since then. In fact, our ranking in the international scenario has actually deteriorated over the period of analysis.

It appears that over the period Pakistan has maintained a fairly stable ranking as far as income is concerned. In all other indicators its ranking has deteriorated .The maximum decline has been in secondary school enrolment, infant mortality rate and adult literacy rate. The improvement in the aggregate ranking in the 90s appears to be a consequence of improvement in enrolment indicators, both primary and secondary, and life expectancy at birth.

Table 6

Pakistan's Ranking in Individual Indicators 1960 to 1995

Indicators	Ranking				
	1960	1970	1980	1990	1995
Infant Mortality Rate	15	17	21	20	21
Life Expectancy at Birth	14	15	17	17	15
Adul Literacy Rate	17	20	22	21	22
School Enrolment, Primary	20	19	23	23	20
School Enrolment, Secondary	11	14	22	21	19
GNP per Capita (in PPP$)	15	14	14	15	15
Overall Social Development Ranking	*17*	*18*	*23*	*22*	*18*

The low level of improvement in the social development indicators is a consequence of the lack of importance attached to human development historically by policy-makers in the country. Human development received a lot of rhetoric but no concrete priority in terms of policy framework for institutional strengthening or allocation of public resources. The Five Point Programme (FPP) initiated in the mid-80s was the first public sector programme which prioritised human development in the country. It constituted the first serious attempt at earmarking of resources and strengthening of infrastructure of social development in the history of Pakistan. The Social Action Programme (SAP) was the second major public sector initiative in this regard. The contribution of these programmes in uplifting the state of social development is reflected in the improvement visible in Pakistan's ranking in 1990 and 1995.

However, the nation has yet to recover the ground lost due to decades (60s and 70s in particular) of negligence. Pakistan's international standing in 1995 is worse than it was in 1960. This will require, first, continued public sector priority for the development of human resources in terms of concrete effort at improvement in delivery mechanisms, improved cost effectiveness of expenditures and higher budgetary resources for the sector. Second, civil society at large will have to play an active role both in enhancing awareness and understanding of the importance of human development and complementing the public sector in provision of social services.

7. SUMMARY AND CONCLUSIONS

The objectives of the report are twofold: first, to examine the international ranking of Pakistan in terms of social development and second, to see whether the low level of social indicators in the country is a consequence of poor initial conditions or has there been a deterioration due to relatively low rate of improvement overtime?

Using a sample of 25 developing countries and six basic social indicators relating to income, education and health, the analysis shows the current low rank of Pakistan, 18th out of 25 countries. The ranking has actually deteriorated from 17 in 1960. As such, the report concludes that Pakistan is a case of a country which not only started with a low level of human endowment but the situation has been exacerbated by the low level of improvement in it over time.

The lack of government priority for social sectors, both in terms of budgetary resources and institutional development is a basic cause of the current malaise. If the situation is to be improved, concrete government effort at improving delivery mechanisms, improved cost-effectiveness of expenditures and higher budgetary resources will have to be ensured. Moreover, civil society at large will have to play a complementary role both in terms of enhancing awareness levels and provision of social services.

Appendix A

Weighted Factor Score of Sample Countries

Countries	1960	1970	1980	1990	1995
Mexico	3.209	2.553	2.687	2.188	1.817
Sri Lanka	3.038	2.613	2.108	2.241	2.063
Korea	2.048	2.725	3.407	3.405	3.669
Philippines	2.008	2.256	1.752	1.470	1.335
Peru	1.924	1.736	1.533	1.210	1.290
Colombia	1.870	2.064	2.197	1.889	1.862
Brazil	1.547	1.307	1.270	1.249	1.139
Thailand	1.180	1.086	1.283	1.419	1.530
Turkey	1.025	1.467	0.737	1.425	1.178
Iran	1.006	0.842	0.606	0.481	0.863
Algeria	0.065	−0.126	0.001	0.610	0.847
India	−0.333	−0.394	−0.884	−0.481	−0.552
Egypt	−0.360	0.150	−0.383	0.158	0.069
Indonesia	−0.647	−0.255	0.138	0.657	0.887
Morocco	−0.980	−0.912	−0.598	−0.582	−0.692
Bangladesh	−1.034	−1.336	−1.699	−1.652	−1.428
Pakistan	**−1.118**	**−1.235**	**−1.908**	**−1.767**	**−1.351**
Zaire	−1.272	−1.112	−0.938	−1.188	−1.498
Kenya	−1.340	−0.918	−0.181	−0.378	−0.478
Sudan	−1.552	−1.744	−1.857	−2.220	−2.113
Nigeria	−1.623	−1.863	−0.745	−1.178	−1.202
Tanzania	−2.027	−1.838	−0.858	−1.613	−1.711
Nepal	−2.091	−2.113	−1.646	−1.349	−1.415
Ethiopia	−2.194	−2.558	−3.030	−2.810	−2.779
Afghanistan	−2.347	−2.395	−2.991	−3.183	−3.331

Appendix B

Z-Sum of Indicators for Sample Countries

Countries	1960	1970	1980	1990	1995
Sri Lanka	10.402	8.446	6.585	6.994	6.315
Mexico	7.786	7.621	7.764	6.385	4.816
Korea	7.720	9.155	10.847	10.775	12.114
Philippines	6.739	6.864	5.275	4.315	3.746
Colombia	5.025	6.281	6.376	5.657	5.245
Brazil	4.469	3.851	3.602	3.450	2.658
Thailand	4.159	3.921	3.772	4.216	4.023
Peru	4.049	4.602	4.431	3.378	3.477
Turkey	1.858	3.528	1.945	4.025	3.014
Iran	0.880	1.964	1.779	1.328	2.712
Egypt	−0.205	0.138	−0.917	0.639	0.920
India	−0.428	−1.446	−2.710	−1.550	−1.496
Algeria	−1.027	−0.778	−0.082	1.775	2.760
Indonesia	−1.523	−0.773	0.127	1.702	1.917
Morocco	−2.835	−2.728	−1.802	−1.679	−1.768
Bangladesh	−2.988	−4.197	−4.983	−4.945	−4.331
Pakistan	**−3.049**	**−3.681**	**−5.402**	**−5.104**	**−3.893**
Zaire	−3.134	−3.563	−2.951	−3.701	−4.829
Kenya	−3.455	−2.500	−0.835	−1.387	−2.204
Nigeria	−4.701	−5.449	−2.506	−3.573	−3.744
Sudan	−4.742	−5.218	−5.263	−6.372	−6.269
Tanzania	−5.369	−5.033	−2.999	−5.032	−5.804
Nepal	−6.047	−6.326	−4.945	−4.024	−3.745
Ethiopia	−6.268	−7.332	−8.615	−8.139	−6.536
Afghanistan	−7.317	−7.347	−8.495	−9.132	−9.097

Appendix C

Literacy Rate in Sample Countries

Countries	1960	1970	1980	1990	1995
Mexico	65.4	74.2	82.7	87.3	89.6
Sri Lanka	75.0	77.6	85.0	88.4	90.2
Korea	70.0	87.6	93.0	93.0	98.0
Philippines	71.9	82.6	86.2	89.7	94.6
Peru	61.0	70.4	80.0	85.1	88.7
Colombia	63.0	75.9	81.0	86.7	91.3
Brazil	61.0	66.2	76.0	81.1	83.3
Thailand	67.7	78.6	86.0	93.0	93.8
Turkey	38.0	51.3	60.0	80.7	82.3
Iran	16.0	36.9	50.0	54.0	72.1
Algeria	13.4	26.4	35.0	57.4	61.6
India	27.8	34.1	36.0	48.2	52.0
Egypt	25.8	33.0	44.0	48.4	51.4
Indonesia	39.0	56.6	65.5	77.0	83.8
Morocco	13.8	21.4	28.0	49.5	43.7
Bangladesh	21.6	23.0	27.9	35.3	38.1
Pakistan	**15.4**	**20.7**	**24.0**	**34.8**	**37.8**
Zaire	31.3	13.0	54.5	72.0	67.0
Kenya	19.5	30.0	47.1	69.0	78.1
Sudan	13.1	16.6	32.0	27.1	46.1
Nigeria	15.4	21.9	34.0	50.7	57.1
Tanzania	9.5	37.4	79.0	72.1	67.8
Nepal	8.8	14.3	19.0	25.6	27.5
Ethiopia	6.0	9.4	15.0	29.4	35.5
Afghanistan	8.0	10.0	20.0	29.4	31.5

Secondary School Enrolment in Sample Countries					(%)
Mexico	11	22	48	55	58
Sri Lanka	27	47	55	74	75
Korea	25	42	78	90	101
Philippines	26	46	64	73	79
Peru	15	31	59	67	70
Colombia	12	25	41	55	66
Brazil	11	26	34	39	45
Thailand	13	17	29	30	55
Turkey	14	27	35	54	56
Iran	12	27	42	54	69
Algeria	8	11	33	61	62
India	20	26	30	44	49
Egypt	16	35	50	76	74
Indonesia	6	16	29	44	48
Morocco	5	13	26	34	39
Bangladesh	8	13	18	19	19
Pakistan	**11**	**13**	**14**	**21**	**26**
Zaire	3	9	24	24	26
Kenya	2	9	20	23	24
Sudan	3	7	16	23	13
Nigeria	4	4	21	24	30
Tanzania	2	3	3	5	5
Nepal	6	10	21	31	38
Ethiopia	0	4	8	13	31
Afghanistan	1	7	10	9	21

Appendix C (*Continued—*)

Primary School Enrolment in Sample Countries				(%)
	1960	1970	1980	1990	1995
Mexico	80	104	122	115	115
Sri Lanka	95	99	103	105	113
Korea	94	103	110	105	101
Philippines	95	108	113	113	114
Peru	83	107	114	118	123
Colombia	77	108	124	110	114
Brazil	95	84	99	109	112
Thailand	83	83	99	99	87
Turkey	75	110	96	110	105
Iran	41	72	87	110	99
Algeria	46	76	94	100	107
India	61	73	83	98	100
Egypt	66	72	73	94	100
Indonesia	71	80	107	115	114
Morocco	47	52	83	67	83
Bangladesh	47	52	63	79	92
Pakistan	**30**	**40**	**39**	**44**	**74**
Zaire	60	88	92	70	72
Kenya	47	58	115	95	85
Sudan	25	38	50	50	54
Nigeria	36	37	119	86	89
Tanzania	25	34	93	70	67
Nepal	10	26	84	103	110
Ethiopia	7	16	34	31	67
Afghanistan	9	28	34	26.4	34.5

Life Expectancy in Sample Countries				(Years)
Mexico	57.0	61.9	66.7	70.0	71.5
Sri Lanka	62.0	65.6	68.1	71.0	74.9
Korea	54.4	62.2	66.8	71.0	75.5
Philippines	52.8	58.8	61.0	64.0	67.7
Peru	47.5	53.9	58.0	63.0	65.9
Colombia	53.1	61.0	65.9	68.9	69.9
Brazil	54.7	59.1	62.7	66.0	67.0
Thailand	52.3	60.5	63.5	66.0	71.7
Turkey	50.5	58.6	61.4	67.0	70.9
Iran	49.6	54.5	60.1	63.0	69.2
Algeria	47.0	53.3	59.3	65.0	69.6
India	43.2	48.5	54.4	59.0	63.0
Egypt	43.1	51.3	55.5	60.0	66.3
Indonesia	41.2	47.3	54.8	62.0	66.0
Morocco	46.7	51.9	58.0	62.0	65.4
Bangladesh	37.3	41.6	48.5	52.0	58.4
Pakistan	**43.3**	**49.3**	**53.0**	**56.0**	**64.1**
Zaire	40.0	46.8	49.2	52.0	53.0
Kenya	41.3	52.0	54.9	59.0	60.2
Sudan	39.6	44.3	48.2	50.0	54.8
Nigeria	38.7	44.5	47.7	52.0	53.9
Tanzania	41.7	45.5	49.0	48.0	50.9
Nepal	37.6	41.7	47.3	52.0	55.9
Ethiopia	43.7	43.3	43.5	48.0	49.0
Afghanistan	33.4	37.2	40.3	42.0	44.3

Continued—

Appendix C (*Continued—*)

GNP Per Capita, in Sample Countries				(in PPP$)
Countries	1960	1970	1980	1990	1995
Mexico	2160	2980	4112	5918	6769
Sri Lanka	970	1282	1696	2405	3408
Korea	690	1465	3110	6733	11594
Philippines	870	1206	1671	2303	2762
Peru	1720	2118	2608	2622	3940
Colombia	1340	1946	2827	4237	6347
Brazil	990	1716	2975	4718	5928
Thailand	690	1204	2101	3986	7742
Turkey	1260	1886	2824	4652	5516
Iran	1840	2329	2948	3253	5480
Algeria	1300	1635	2056	3011	5618
India	530	633	755	1072	1422
Egypt	500	810	1312	1988	3829
Indonesia	490	783	1251	2181	3971
Morocco	540	917	1558	2348	3477
Bangladesh	760	908	1084	872	1382
Pakistan	**560**	**848**	**1284**	**1862**	**2209**
Zaire	310	348	392	367	355
Kenya	470	618	812	1058	1438
Sudan	670	765	873	949	1110
Nigeria	550	688	861	1215	1270
Tanzania	210	300	429	572	636
Nepal	480	568	673	920	1145
Ethiopia	290	310	332	369	455
Afghanistan	670	684	698	714	700

Infant Mortality in Sample Countries				(Per 1,000)
Mexico	91.1	73.6	51.0	39.0	32.6
Sri Lanka	70.6	58.5	34.4	19.0	15.6
Korea	78.3	50.1	25.8	17.0	9.8
Philippines	105.8	75.0	52.2	41.0	38.8
Peru	162.9	119.7	81.0	69.0	46.7
Colombia	103.0	77.0	45.2	29.9	25.6
Brazil	118.2	98.6	70.0	57.0	44.0
Thailand	103.0	74.6	48.8	27.0	34.8
Turkey	189.5	147.5	109.2	66.0	47.6
Iran	163.0	136.2	91.6	88.0	45.2
Algeria	165.0	144.0	97.6	67.0	33.5
India	165.0	139.0	116.4	92.0	67.7
Egypt	128.0	117.1	107.1	66.0	55.6
Indonesia	149.9	120.9	90.0	61.0	51.0
Morocco	160.5	136.4	99.2	67.0	54.6
Bangladesh	159.0	150.3	131.6	105.0	78.8
Pakistan	**161.5**	**143.0**	**124.0**	**103.0**	**90.0**
Zaire	150.0	132.0	111.0	94.0	128.0
Kenya	137.5	112.0	72.4	67.0	58.0
Sudan	168.0	150.4	94.0	102.0	76.6
Nigeria	183.4	158.0	99.4	98.0	79.8
Tanzania	151.5	125.3	104.0	115.0	82.4
Nepal	194.5	172.5	131.8	121.0	91.2
Ethiopia	175.0	158.5	155.0	132.0	111.8
Afghanistan	233.4	210.9	183.0	170.2	157.6

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Comments

The paper by Ghaus-Pasha, Pasha and Ahmed deals with the critical issue of social development ranking of Pakistan relative to selected developing countries. The objective of the paper is to examine the issue whether the current low level of social indicators is a consequence of poor initial conditions or is it due to low rate of improvement relative to other countries? The authors select income, educational attainment, life expectancy and infant mortality rate as indicators of social development. Factor analysis technique is applied to construct index of social development for a sample of 25 countries with per capita income below US$ 400 and population above 8-million in 1960. The results of the study show that Pakistan ranked 17 among the sample of 25 countries in 1960s but it was 23 and 18 out of 25 in 1980s and 1995 respectively. According to the authors, lack of government priority for social sectors is the major cause for the deterioration in social ranking of Pakistan. The study concludes by saying that, "if the situation is to be improved, concrete government effort at improving delivery mechanisms, improved cost-effectiveness of expenditure and higher budgetary resources will have to be ensured. Moreover, civil society at large will have to play a complementary role, both in terms of enhancing awareness levels and provision of social services".

I agree with this conclusion, however, this is a general statement not a result based on the analysis conducted in the study. Furthermore, my other comments are as follows:

(1) The principal component technique orders the components on the basis of variance not in the order of importance as claimed by the authors.

(2) The problem of interpretation of different factor components are well documented.

(3) The factor loading matrix reported in Table 1 shows that the variables included in each factor changed over time. For example, in 1960s and 1970s, factor 1 did not include GDP-per capita but for 1980s and 1990s it is an important component of factor 1. Similarly, literacy was major component in factor 1 in 1960s and 1970s only. This creates not only the problem of interpretation but also the problem of comparability of the same factor over time.

(4) The role of the initial conditions is not discussed in detail.

(5) Emphasis on the role of public sector seems to assume that only the supply constraints are affecting literacy and education. The role of demand factors in ignored.

(6) Ranking of a country gives it relative position. The country may have made significant progress in absolute terms. For example, the tables in Appendix C show significant improvements in health related indicators while the overall social development index shows deterioration in Pakistan's ranking.

Despite these problems the study indicates that overall situation regarding social development in Pakistan needs urgent policy actions as it is a prerequisite for economic growth and for improving population welfare.

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