

Muslim Development at Risk: The Crisis of Human Resources

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Regardless of the definitions chosen, the conceptual frameworks adopted, or the analytical schemes utilized, many social analysts would agree that, even after decades of struggle for national development and modernization, the state of underdevelopment in Muslim countries has not changed significantly.¹ On most of the standard measures conventionally used to make international comparisons as regards national development, Muslim countries occupy a disproportionate share of the bottom positions. While they languish there, the rest of the world thrusts forward.² Despite the oil wealth of the Muslim world, most Muslim countries remain on the periphery of the emerging global economy and are becoming increasingly marginalized as newly industrialized Third World countries enter the competitive international marketplace. The Muslims' failure to transform their societies and become productive is due to their lack of knowledge, skills, and capabilities in most areas of intellectual endeavor, especially in the scientific and technical fields. More specifically, their inability to use the tools, techniques, and procedures of modern science for developmental changes is the result of deficiencies in their human resources.

This paper examines the present status of human resources in the Muslim world and assesses their prospects for the future direction of development and modernization. Its analysis is confined to the relationship

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¹Based on the data presented by the annual World Development Reports (Washington, DC: World Bank) for the last two decades, and on both popular and extensive writings on this topic, such as Bassam Tibi, *Islam and the Cultural Accommodation of Social Change* (Colorado: Westview Press, 1990) and Hooshang Amirahmadi, *Revolution and Economic Transition: The Iranian Experience* (New York: State University of New York Press, 1990).

²*Ibid.* See also UNDP, *Human Development Report 1990* (New York: Oxford University Press, 1990).

between the quality of human resources and development changes. The variable of human resources is considered to be a necessary, though not sufficient, condition for the generation and sustenance of societal changes implicit in the process of development and modernization.³ The paper articulates the hypothesis that the Muslim world will encounter serious interruptions in its industrialization pursuits owing to the deficient nature of its human resources. Furthermore, it projects an unstable pattern of economic development characterized by social dislocations, breakdowns, and discontinuities well into the next century.

The Theoretical Background

In its broadest possible conceptualization, development focuses on two factors: a) raising people's consumption levels through relevant economic growth processes, and b) creating conditions conducive to the growth of people's self-esteem through the establishment of social, political, and economic systems and institutions. These latter elements will, in turn, promote human dignity and people's freedom to choose.⁴ While the outcome of development is seen as the betterment of human lives, it is also human ability that provides the input for developmental growth.

The centrality of the human element, largely ignored until recently by students of development—especially the economists—now has captured the imagination of analysts in the field. The ideas that people are the "productive agents" whose "quality need to be improved" for greater output⁵ and that human resources constitute "the ultimate basis of the wealth of nations"⁶ have shifted the focus of developmental scholars from their preoccupation with purely physical modes of capital to human activity. The idea that "the human resources of a nation ultimately determine the character and pace of its social and economic development"⁷ is now taken as the basis for a new orientation in the study of development and has inspired an exhaustive study conducted by the United Nations into the hu-

³Frederick H. Harbison, *Human Resources as the Wealth of Nations* (New York: Oxford University Press, 1973), 18.

⁴Michael P. Todaro, *Economic Development in the Third World*, 2d ed. (New York: Longman, 1981), 524.

⁵Gerald M. Meier, *Leading Issues in Economic Development*, 4th ed. (New York: Oxford University Press, 1984), 567.

⁶Harbison, *Human Resources*, 3.

⁷Todaro, *Economic Development*, 330.

man dimensions of the developmental phenomena.⁸ A prominent contemporary scholar argues that technological superiority, a necessary tool for creating wealth in a nation, can only be maintained by investing in people;⁹ while another extolls education and training as the means for insuring a competitive edge in the global economy.¹⁰ Another scholar, in what is meant as a lesson for the United States, attributes the ascendant role of Japan and Germany in the international marketplace to the high caliber of their human resources.¹¹ Incredible as it may seem, the concern with the quality of human resources inspired a major study, *A Nation at Risk*, on education in the United States. It was much debated and analyzed in the national media until recently.¹²

Human resources, or people, are the engine of development, and it is their productive capability that contributes to economic growth, increases per capita income, and improvements in living standards. However, expansion in productivity is possible only if the available human resources are proficient in applying science and technology for the production of goods and services. Despite sustained efforts over the past several decades, Muslim countries have achieved only a rudimentary level of increase in their per capita production. The underlying reason for the low level of growth has been the paucity of needed skills, knowledge, and capabilities. However, industrial infrastructures have been established in many Muslim countries, and their further expansion requires the employment of an increasingly sophisticated workforce. At this stage of developmental growth, if the appropriate manpower is not available for the introduction of sophisticated technology, the risk of a breakdown would be quite serious.¹³

Development and Modernization

While Muslim countries seek industrialization as their immediate objective, they are confronted with an even more profound and substantive

⁸UNDP, *Human Development*.

⁹Robert B. Reich, *The Work of Nations* (New York: Vintage Books, 1991).

¹⁰Lester Thurow, *Head to Head* (New York: William Morrow and Co., 1992).

¹¹Jeffrey E. Garten, *A Cold Peace: America, Japan and Germany and the Struggle for Supremacy* (New York: Times Books, 1992).

¹²National Commission on Excellence in Education, *A Nation at Risk: The Imperative for Education Reform* (Washington, DC: U. S. Government Printing Office, 1983).

¹³Norman Jacobs, *The Sociology of Development* (New York: Praeger, 1966), 74.

change: modernization. This process of change involves transforming traditional agrarian societies (which includes all Muslim countries) in a comprehensive and systemic manner, one that is both fundamental and across the board, into modern industrial ones. Industrialization and modernization are inextricably and symbiotically intertwined and cannot be separated, the former being a more specialized form of change and the latter a more generalized one. Economic development, yet another variant in this transformational drama, refers to the state of change concerned with raising productivity and is also inseparable from the preceding processes. In fact, all are descriptions of societal change, the movement from preindustrial to technologically developed societies, and the improvement of human life through science and technology.¹⁴

A society's modernization also depends on the intelligent use of its people's talents, knowledge, skills, and abilities. Obviously, people's activities are central to modernization, as this process requires both more and higher skills and knowledge for institutionalizing changes so that the permanence of the new structures is established and sustained. Modernization, in its generic form, includes the idea of "increasing control by man over his environment through the application of scientific knowledge."¹⁵ The process of modernization that has taken place in every society due to the scientific revolution of the past two centuries has produced a profoundly novel type of experience for the human community. The use of technology based on modern science has not only substantially changed the pattern of living in developed countries, but has also affected life in the Muslim world, though on a much more restricted scale.

Both the people and the governments in Muslim countries desire the life that modernization offers, and hence they are obsessed with economic development and industrialization. A modern society is characterized by, among other things, a comparatively high degree of urbanization, widespread literacy, a comparatively high per capita income, extensive geographical and social mobility, a relatively high degree of commercialization and industrialization of the economy, an extensive and pervasive network of mass communication, and, in general, the widespread participation and involvement of its members in the social, economic, and political processes.¹⁶ Such a society is economically developed, industrial-

¹⁴Myron Weiner, ed., *Modernization: The Dynamic of Growth* (New York: Basic Books, 1966).

¹⁵Cyril E. Black, *The Dynamics of Modernization* (New York: Harper and Row, 1966), 7.

¹⁶David E. Apter, *The Politics of Modernization* (Chicago: University of Chicago Press, 1967), 43-80.

ized, and modernized. No Muslim country even remotely approximates the characteristics delineated above. The term "modernization" is not just a palatable synonym for the elusive concept of Westernization, since Japan comes closer to approximating the ideal of a modern society than do most European nations. Its level of human development, listed in the *Human Development Report 1990* at .996, is the highest in the world.¹⁷ According to Levy, modernization is a "universal social solvent," a phenomenon which is inevitable and omnipresent.¹⁸

The initial Muslim encounter with modernization occurred under colonialism when methods, procedures, and techniques refined through scientific knowledge were used for conquest and subjugation as well as the exploitation of their natural resources. While the colonial intrusion into the heartland of Islam was quite shocking to Muslims, the technological paraphernalia introduced, the organizational styles implemented in administration and governance, and the efficiency established left a lasting impression.¹⁹ The use of science and technology remained confined to activities of immediate benefit to the colonial rulers, leaving the vast majority of people unaffected. The pursuit of modernity in its present form, the systematic large-scale transformation of Muslim societies through economic development, had to wait for decolonization and the emergence of an indigenous political leadership.

After decades of toil with only rudimentary infrastructures for industrial expansion in place, most Muslim economies now have a sufficient base for the take-off stage of growth. However, sustaining economic activities at this stage necessitates the implementation of sophisticated technology, the enlargement of productive facilities, and the employment of increasingly large numbers of skilled workers with higher levels of training.²⁰ An economy on the road to technological complexity requires a workforce with rising levels of skills and education for its sustenance, which means that the workers must be literate. While the need for greater proficiency in the application of technical and scientific knowledge is imperative for sustaining economic growth, the human resources now available in the Muslim world are unlikely to be able to meet this challenge.

¹⁷UNDP, *Human Development*.

¹⁸Marion J. Levy, *Modernization: Latecomers and Survivors* (New York: Basic Books, 1972), 35.

¹⁹I. Robert Sinai, *The Challenge of Modernization* (New York: W. W. Norton and Co., 1964), 47-107.

²⁰W. W. Rostow, *The Stages of Economic Growth* (Cambridge: Cambridge University Press, 1963).

At the present time, local human resources are quite deficient for carrying forward the economic growth and modernization processes. Historical evidence and the experiences of such newly industrializing countries as South Korea, Taiwan, Hong Kong, and Singapore indicate that industrialization depends upon a high quality of human resources, meaning a skilled and educated workforce and a literate population.²¹ No Muslim country has yet reached a comparable level. The Muslim problem is highlighted by Harbison:

Capital and natural resources are passive factors of production; human beings are the active agents who accumulate capital, exploit natural resources, build social, economic and political organizations, and carry forward national development. Clearly, a country which is unable to develop the skills and knowledge of its people and utilize them effectively in the national economy will be unable to develop anything else.²²

The preceding quotation, quite relevant for understanding the dilemma of human resources, raises some serious concerns about developmental growth in the Muslim world.

Data and Methodology

The analysis presented here includes data on several dimensions of educational achievement that portray the present quality of human resources in the Muslim world. Altogether, data on a number of educational and social variables were collected for the 119 nation-states²³ included. The countries selected had to meet the following conditions: a) independent and sovereign for at least a decade, and b) a population of at least one million. For comparative purposes, the countries were classified into three categories: industrial, Third World, and Muslim. Only those in which 50 percent of the population is classified as Muslim and in which the practice of Islam was freely allowed by the authorities were included in the Muslim group. The industrial category included thirty-four nation-states, the Third World category fifty-seven nation-states, and the

²¹Lawrence J. Law, *Models of Development* (San Francisco: ICS Press, 1986).

²²Harbison, *Human Resources*, 3.

²³The data contained in the following discussion and charts were taken from sources published before such recent political events as the collapse of the Soviet Union and the consequent emergence of a host of newly independent nations, the reunification of North and South Yemen, and the reunification of East and West Germany. Editor's note.

Muslim category twenty-eight nation-states. The means for each variable were computed for the three categories of nation-states, as well as for the entire group. Several correlational relationships were explored, though not all were necessarily reported. The data were obtained from conventional handbooks published by international organizations, primarily several agencies of the United Nations.²⁴

Analysis and Discussion

Human progress has been achieved largely through literacy and education in modern times, as seen specifically in the Industrial Revolution in the West, which gained momentum through the discovery, acquisition, and application of knowledge. Both Marx and Weber, two eminent sociologists noteworthy for their seminal analyses of social change, concluded that scientific learning constituted the foundation of industrialization.²⁵ In his highly acclaimed empirical work, Lerner stated that literacy is the vehicle for the transformation of traditional societies into modern ones.²⁶ Others have regarded literacy as essential for nation-building,²⁷ for modernization,²⁸ for political development,²⁹ for economic development,³⁰ for economic growth,³¹ and for the institutionalization of political freedom.³²

Despite the importance of education, the Muslim rate of literacy, as shown in table I, is the lowest when compared with the other categories of nations. The data shows that almost two-thirds of all Muslims are illiterate, a shocking state of affairs in the last decade of the twentieth cen-

²⁴The data for the study were obtained from the World Bank's *World Development Report 1987*, UNESCO's *Statistical Yearbook 1987*, UNICEF's *The State of the World's Children 1987*, and Ruth Sivard's *World Military and Social Expenditures 1987*.

²⁵H. H. Gerth and C. Wright Mills, *From Max Weber: Essays in Sociology* (New York: Oxford University Press, 1958).

²⁶Daniel Lerner, *The Passing of Traditional Society* (Glencoe, IL: Free Press, 1958).

²⁷Richard Bendix, *Nation-Building and Citizenship* (New York: Doubleday and Co., 1969).

²⁸Black, *Dynamics*.

²⁹Apter, *Politics*.

³⁰Robert L. Heilbroner, *The Great Ascent* (New York: Harper and Row, 1963).

³¹Rostow, *Stages*.

³²William McCord, *The Springtime of Freedom* (New York: Oxford University Press, 1965).

tury when dramatic technological, social, political, and economic changes are fundamentally transforming global society. Further, the Muslim literacy rate is far below the world average (35 percent) and even 21 percent below the mean for the Third World, despite their comparable levels of development.

	Mean Rate of Literacy	% aged 5-19 in school	% aged 25+ (no school)
All Nations	65	58	61
Industrial Nations	98	76	3
Third World Nations	59	51	64
Muslim Nations	38	43	77

Table 1: Basic Education

The lower rate of Muslim literacy and the lower level of school attendance among Muslim children obviously reinforce one another, and both evidently are causally related to the high no-schooling rate. In an age when education is considered to be a panacea for a multitude of human afflictions, one notes with amazement that less than half of all Muslim children attend school. At this rate, the Muslim workforce of tomorrow will be deficient in and devoid of the crucial skills needed for economic development. In addition, the next generation will be a burden on society. Many of the uneducated will be increasingly marginalized in a rapidly changing environment and will face a life of poverty, desperation, and degradation. Given the lower rate of school attendance, the Muslim world's human resources will remain poor, thus adversely affecting the prospects for industrial expansion.

One of the major barriers to schooling is illiterate parents who, because they have never been inside a classroom, seemingly do not value education or realize its potential for their children's advancement. Tragically, some misguided Muslim parents view education as a corrupting influence to be avoided, lest one becomes tainted by the evil ways of the world. Incredible as it may sound, some Muslims even consider remaining illiterate to be a blessing for having followed the example of the Prophet. Little do they realize that the Prophet exhorted all Muslims to acquire knowledge and to follow the Qur'anic injunctions on learning.

The three variables examined constitute a vicious circle, each element reinforcing another, and perpetuate illiteracy across the generations. Only

decisive governmental action can intervene to break this cycle. It seems paradoxical to pursue development when many Muslim governments have not realized that illiteracy is counterproductive to social change and detrimental to the national interest both for economic advancement and for the welfare of the people. When the 119 nation-states included in this study were rank-ordered on the variable of literacy, Muslim countries were disproportionately represented in the fourth quartile, with six in the bottom ten. At the absolute bottom was Afghanistan, the most illiterate country in the world, which has a literacy rate of only 12 percent. The 32 percent literacy rate for Pakistan, the second largest Muslim country, is below the mean for Muslim nations. Bangladesh, the third largest, is at 34 percent. It is interesting to note that India has a significantly higher rate of literacy, 45 percent, than either Pakistan or Bangladesh, even though the three constituted a single country (British India) with a literacy rate of 12 percent on the eve of partition in 1947. Lebanon, at the top with 80 percent, is a small country with a substantial non-Muslim population.

One need not unnecessarily belabor the points that literacy is crucial to national development and that it is highly correlated with productivity and the per capita GNP. However, it is instructive to note that both England and Germany had literacy rates into the high sixties at the beginning of the nineteenth century, just when the Industrial Revolution was getting off the ground.³³ At a comparable stage today, the Muslim world has half their literacy rate, even though enormous amounts of knowledge have accumulated since then, to say nothing of the interminable scientific and technological breakthroughs that have taken place in the interval.

The mass media in the Muslim world derisively refer to the people as "the illiterate masses," contemptuously holding them responsible for the backwardness of their respective countries. The socio-psychological effect of illiteracy, devastatingly pervasive in the Muslim world, has actually produced a "culture of illiteracy" with pernicious and debilitating characteristics in interpersonal intercourse, including rampant rumor-mongering, backbiting, distrust, pettiness, and suspicion among the people, including even the educated. Moreover, this illiteracy has contributed to the people's abysmal ignorance to such an extent that the Muslim world seems to be more in the medieval ages than in the twentieth century.³⁴

The workforce of tomorrow will be formed of those now in school. For Muslims, this means a smaller pool of talented and skilled individuals

³³E. J. King, *Other Schools and Ours* (London: Methuen and Co., 1958).

³⁴Richard Reeves, *Passage to Peshawar* (New York: Simon and Schuster 1984), 32-3, 122-3, 177 and *passim*.

prepared for a meaningful role in the developmental process, since less than half of all school-aged Muslim children attend school. In fact, most of these children are growing up illiterate at a time when immense pressures for change, both internal and external, are impinging upon the global Muslim community. The present low rate of school attendance is a determinative factor in the continued existence of the poor quality of human resources. Prospects for industrial expansion in the immediate future seem rather bleak, for Muslim human potential is not systematically cultivated in any rational manner, such as through schooling.

In a modern nation-state, schools serve as the primary vehicles for the socialization of children by inculcating the beliefs, values, attitudes, and behavior patterns permeating the social fabric. Schools are instrumental in fostering a set of common cultural norms, providing feelings of solidarity, creating a sense of loyalty to the nation-state, and overcoming divisive parochialism. Schools could alleviate the centrifugal forces of ethnic, cultural, and social fragmentation rampant in the Muslim world. But, such attempts have not been made by the Muslims' national leaders.

The weak system of schooling is unlikely to create either social or political stability in the Muslim world or to enhance its economic expansion and modernization. It will also not provide a base for the advanced learning necessary for a society undergoing developmental change. Tertiary education is the fuel for economic growth beyond the take-off stage, as it provides the expertise, the requisite knowledge, and the capabilities required in an expanding economy. The acquisition, production, and dissemination of knowledge, especially in the sciences and engineering, are essential activities in modernizing societies. However, the Muslim world has failed to realize this and is therefore unlikely to produce enough trained personnel in these fields. This point is underscored when the data examined for higher education and scientist—engineer ratio (table II) places Muslim nations at the bottom of the list.

	% aged 20-24 in higher education	Scientist—Engineer ratio(per million)
All Nations	13	7,127
Industrial Nations	35	23,824
Third World Nations	11	6,691
Muslim Nations	6	3,593

Table II: Advanced Education

The Muslim ratio of scientists and engineers per one million population is fully 46 percent lower than that for the Third World as a whole, an incredible situation in a world increasingly governed by science and technology.

The data for higher education indicate that the pool of intellectual manpower, a class of people urgently needed for developmental activities and leadership positions, is so small that the process of modernization at this critical stage would be seriously jeopardized in the absence of immediate ameliorative steps. The introduction of scientific knowledge and state-of-the-art technology are dependent largely upon graduates of institutions of higher learning. One of the reasons, no doubt, for the low number of scientists and engineers in Muslim countries is the low number of Muslim students pursuing higher education.

The current paucity of active and qualified Muslim scientists and engineers does not bode well for the Muslim world's economic growth in the immediate future. The pool of scientific manpower engaged in meaningful economic activity in the Muslim world is simply too small to make the kind of contribution needed by industrializing societies on the verge of take-off. The lower level of scientific capability among Muslims is most directly indicated by their inability to produce sophisticated technological goods (i.e., computers, VCRs, and aircraft) currently manufactured by such Third World nations as South Korea, Taiwan, India, and Brazil. Owing to the larger number of local students pursuing higher education and to the successful production of more scientists and engineers, a number of Third World nations are forging ahead in industrial development much faster than any Muslim nation.

Table III presents data on higher education enrollment ratios for the three largest countries in each of the three earlier-mentioned categories. This measure was designed to compare individual countries with one another in a more direct way.

Industrial Nations		Third World Nations		Muslim Nations	
USSR	21	China	6	Indonesia	4
USA	58	India	9	Bangladesh	4
Japan	30	Brazil	12	Pakistan	2

Table III: Enrollment in Higher Education
(as a percent of those aged 20-24)

The "higher education" rates of the three largest Muslim countries are below those of the others, including their Third World and Asian counterparts, although they are all at a similar level of economic development. They also rank below the mean for Muslim nations as a whole.

For further comparison, data for all Muslim countries are presented in order to identify the pattern of enrollment across the entire spectrum of nations (see table IV). The two Muslim countries with the highest levels of participation are the small nations of Jordan and Lebanon, whose combined population is smaller than that of Cairo. These two small countries, with their higher rates, also unduly inflate the statistical mean of the Muslim world.

Country	% in higher education	Country	% in higher education
Jordan	32	Indonesia	4
Lebanon	28	Bangladesh	4
Syria	16	Guinea	3
Kuwait	15	Senegal	3
Egypt	15	Sudan	2
Iraq	10	Pakistan	2
Saudi Arabia	9	Yemen PDR	2
Turkey	6	Somalia	1
Libya	6	Mali	1
Morocco	6	Afghanistan	1
Malaysia	5	Yemen Arab Rep.	1
Algeria	5	Mauritania	.7
Tunisia	5	Chad	.5
Iran	4	Niger	.3

Table IV: Enrollment in Higher Education for Muslim Countries
(as a percent of those aged 20-24)

Only a handful of these countries have double-digit enrollments, while three-quarters are at or below the Muslim world's mean, and about a quarter are at or below the one percent level. At these rates, the prospects for improving the quality of human resources or for producing large numbers of scientists, engineers, and individuals with the strategic skills needed to provide the leadership necessary for development and modernization are not too encouraging.

While the number of Muslim scientists and engineers is quite low, the aggregate numbers for the largest countries in each of the three categories could also be examined. The figures presented in table V show that the three largest Muslim countries have the lowest totals of scientists and engineers, numbering in the mere thousands rather than in the hundreds of thousands, which is the norm for the other nations.

Industrial Nations		Third World Nations		Muslim Nations	
USSR	7.000	China	5.296	Indonesia	.095
USA	3.167	India	.997	Bangladesh	.025
Japan	7.046	Brazil	2.511	Pakistan	.100

Table V: Scientists and Engineers for the Largest Countries
(Totals for each country. Figures represent millions.)

The lack of substantial scientific manpower resources in the largest Muslim countries seems to have seriously impeded industrialization. The present structure of the technical workforce, likely to be maintained into the future given the data examined in this study, would impact negatively not only on economic growth but also on the entire process of transformation currently underway. It needs to be pointed out that while Brazil and Indonesia are both developing countries with comparable population sizes, the former has twenty-five times as many scientists and engineers as the latter. Even more puzzling is Bangladesh, a country with a population of over 100 million but with fewer scientists and engineers than the 27,000 claimed by Singapore. Comparable figures for South Korea are 94,171 and about 1,083,742 for the Philippines, even though each of these Asian countries has less than half the population of Pakistan.

The number of scientists and engineers engaged in research and development is central for scientific breakthroughs and technological innovations. The prospects for any scientific miracles are not imminent for Muslims, as there "are only 45,136 scientists and engineers working in

research and development in all the Muslim countries combined, compared with 34,800 in Israel alone, or four hundred thousand in Japan or a million and a half in the Soviet Union."³⁵

Despite their populations, Muslims have not produced a proportional number of graduates in science and technology. This is due to the neglect of education, even though the Qur'an tells Muslims to seek knowledge. Much of the data presented in this paper indicate that learning is not a priority for Muslims. This is reinforced by the data presented in table VI, which shows the low ratio of teachers and the lower human development index (see next page for an explanation of HDI) for the Muslim world.

	Population per Teacher (ages 5-19)	Human Development Index
All Nations	47	.732
Industrial Nations	28	.961
Third World Nations	52	.711
Muslim Nations	88	.524

Table VI: Education and Human Development

The major vehicle for achieving human development is the teacher. The Muslim world has one teacher per eighty-eight pupils, an incredibly high ratio that is almost three times higher than that for the industrial nations. Lack of interest in education and learning are perhaps the major reasons for the paucity of teachers, though general illiteracy and a high no-schooling rate among adults are undoubtedly related to it. The vicious circle of illiteracy could be broken by producing more teachers, as they are essential for improving the quality of human resources. But without substantial public pressure and possible governmental intervention, this situation is not likely to change.

When the 119 nation-states included in this study were rank-ordered by their teacher—pupil ratio, Muslim countries were generally in the fourth quartile, with six in the bottom ten. Israel was first, with one teacher per eighteen pupils. Pakistan was ninety-third, with one teacher per 112 pupils, below such unstable and poverty-stricken nations as Zaire

³⁵Richard Reeves, "A Reporter at Large (Pakistan)," *The New Yorker* (1 October 1984): 88.

(eighty-third) with 88 and Haiti (ninetieth) with 108.

A Human Development Index, recently created through a United Nations study combining life expectancy, educational attainment, and income indicators to give a composite measure of success in meeting human needs, scored each of the 130 nation-states included in the analysis.³⁶ The scores reflected the level of achievement in fulfilling human needs. The resulting data (table VI) indicate that human needs are most fulfilled in the industrialized nations and least fulfilled in the Muslim ones. Muslim countries have a level of development about 40 percent below that of the Third World, despite their similar socioeconomic status. They also disproportionately occupy the scale's lower end, with seven in the bottom ten. Ranked at 130, the very bottom, is Niger, with a score of .116, just below Mali (129), with a score of .143. Given the above, it is not hard to imagine the plight of Muslim human resources. The United Nations' study strongly substantiates the data and analysis presented here.

One of the least palatable aspects of the Muslim world is the position of women. They form the most ignored, unproductive (according to Western market standards), and unskilled portion of the Muslim world's human resources. Almost three-quarters are illiterate, and, in some countries, the rate is much higher: 84 percent in Pakistan, 92 percent in Afghanistan, 70 percent in Egypt, and 94 percent in Somalia. Denying education to women makes it impossible for them to do productive and economically meaningful work. Thus, half of all Muslim human resources are wasted.³⁷ This situation is unlikely to change anytime soon, as 73 percent of all teenage Muslim women do not attend school.

	Female & Health Education (% aged 12-17 in school)	Death of children under 5 years old per 1000
All Nations	48	104
Industrial Nations	88	13
Third World Nations	41	134
Muslim Nations	27	171

Table VII: Teenaged Female Enrollment and Child Mortality (per 1000)

³⁶UNDP, *Human Development*.

³⁷World Bank, *Women in Pakistan* (Washington, DC: 1989).

The failure to educate women, who are therefore unable to improve the health and well-being of their nation, imposes a severe social cost. The fundamental reason for the high child mortality rates in Muslim nations is that their women lack a sufficient knowledge of proper diet and nutrition and are ignorant of basic sanitation and hygiene. They therefore have to rely on old wives' tales for infant care. Muslims have yet to understand the crucial role played by women, besides insuring the physical care and survival of infants, in child socialization, teaching values and beliefs, and developing language skills among the young. The high under-five mortality rate, which could be drastically reduced if women received even a minimal health care education, is an indication of the exceedingly poor quality of life. Unfortunately, most Muslim mothers are so ignorant that they completely lack any understanding of the germ theory of disease or even the concept of germs. Female education and the under-five mortality rate are inversely correlated, which would suggest that the way to reduce death among the young is to educate women.

The disadvantaged status of Muslim women and their exclusion from any constructive role in Muslim society is a substantial constraint on the development potential of the Islamic world. The loss of brainpower and productivity of one half of available human resources is a tremendous waste and imposes an enormous cost in lost opportunities.

Conclusion

This analysis leads to the inevitable conclusion that the poor quality of human resources is the major impediment in the Muslim world's advancement. The numbers presented portray the Muslims as disproportionately deficient in those skills and capabilities that are essential for industrial development and modernization. The mobilization of physical and capital resources for sustained economic growth at the take-off stage and beyond would be highly problematical if the existing quality of human resources were to be maintained. The staggering rate of illiteracy defies one's imagination and raises serious concerns about the functioning and advancement of a community in which two-thirds of the people, despite the encroaching technological age, cannot read and write. A modern economy cannot be created and sustained by illiterates, nor can such a country transform itself into a modernized nation-state. The Muslim world is in desperate need of visionaries, innovators, and entrepreneurs in every conceivable field. However, the emergence of such people is doubtful given the restrictive structure of education.

Education, the only avenue for collective national advancement and individual social mobility, is the most neglected enterprise in the Muslim

world. Let us take the case of just one Muslim country: Pakistan. While its pervasive illiteracy is shocking, at a higher level there are only 685 Ph.D.s in that nation of 100 million as compared to almost five thousand in the tiny state of Israel, which has half the population of Karachi. The educational conditions in other Muslim countries are not much better.

The data presented in this paper show that Muslims are at the bottom of the developmental scale at a time when fundamental and unalterable change is transforming the face of global society. Muslims, however, remain in their collective ignorance and are blissfully unaware of the challenges in science, technology, and human thought currently confronting them. A competitive global economy has emerged in which small Asian countries (i.e., Taiwan, Hong Kong, Singapore, and South Korea) have become powerhouses of economic strength in the international marketplace through the production of quality goods. As the global economy becomes more integrated, Muslim countries are noticeable by their absence from the arena of international competition. Most Muslim nations are passive consumers of foreign products acquired through the sale of their fast-depleting natural resources. Muslims lack the capacity to compete, regardless of the field and including the production of goods, due to the absence of skills, attitudes, and the requisite mental disposition. Unless the quality of their human resources is substantially improved, Muslim countries are likely to remain inert spectators on the periphery of the economic drama, powerless and without any meaningful role in the international hierarchy.

When one considers that people are the foundation of national power and that human resources constitute the ultimate basis of a given nation's wealth, it is not too difficult to understand why Muslim countries are neither powerful nor wealthy. On the whole, Muslim nations have not received much attention in world councils. Nor have they been successful in diplomatic lobbying for their causes, to say nothing of the humiliating defeats on the battlefields in recent times. All of these, of course, can be attributed to their incompetence, both behavioral and intellectual.

Muslims comprise about 22 percent of the world's population, but their achievements are not proportional to their numbers. In reality, their achievements are not proportional to even one-tenth of their numbers. Some examples will suffice: less than one percent of the all scientific papers published in the world are by Muslims; of all the Nobel prizes given, Muslim recipients account for only three (substantially less than one percent); and in the Olympics, Muslims received less than one percent of all medals awarded. Such tragic litanies chronicle the status of the Muslim world in the last decade of the twentieth century.

The challenges of the twenty-first century, currently characterized by the revolution in communications technology, will be beyond the com-

prehension of Muslims unless they rapidly improve the quality of their human resources through massive programs of educational uplifting. The human potential of their citizens needs to be cultivated. This involves developing their capabilities, strengthening their self-esteem, and teaching skills, and empowering individuals. These could be accomplished primarily through the educational arena. However, they must be done in a comprehensive and sustained manner. Education is the only large-scale job training program that exists in any nation.

However, if the present structure of human resources persists, developmental efforts will suffer. The escalating levels of violence, endemic throughout the Muslim world, which have led to the virtual cessation of Lebanon's and Somalia's status as viable nation-states, may be the harbinger of the social turmoil projected in this study. The desperate plight of Muslims can be alleviated only by committed leaders who possess the vision and foresight necessary to begin empowering the individual and mobilizing the masses. However, given the poor quality of existing human resources and the explosive social convulsions on the horizon, one cannot be overly optimistic about the future of the Muslim world on the eve of the twenty-first century.