

*Indus Journal of Management & Social Sciences*  
Vol. 2, No.1: 50-65 (Spring 2007)

## Human Capital Investment Is a Continuous Proposition: A Study of North East African States

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### ABSTRACT

Human development is the beginning of economic growth. The main purpose of wealth should be to enrich people's lives, to broaden people's choices and to enable every citizen, every child, every woman and every man to reach her or his full potential. Yet, as the experience of many countries has shown, economic growth does not automatically translate into human development. Human capital refers to the stock of productive skills and technical knowledge embodied in country's population. A well-educated, innovative and skilled population is the foundation as well as the goal of development. It is also the surest way to eradicate poverty. The education and training systems of all the nations jeopardizes the future of millions of children and of the nation itself. This paper analyses the importance of human being resources in general and economic development in North East African States (NEAS) in particular. The study focuses that the Human capital as both the goal and the engine of economic growth, because 40 to 60 per cent of growth rates in per capita GDP can be attributed to investment in human capital and the increased productivity that results. Sustainable development cannot occur in the absence of human resource. It is also concluded that major portion of means goes for middle man and upper classed families.

**JEL. Classification:** E21; J24; O10

**Keywords:** Education, Human Capital, Skilled Manpower, Economic Growth and Development, North East African States, Poverty, etc.

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IJMSS is published by "Indus Institute of Higher Education (IIHE)" Plot. # ST-2D, Block-17, Gulshan e Iqbal, Karachi, Pakistan

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*Acknowledgements:* Author would like to thank the editor and anonymous referees for their comments and insight in improving the draft copy of this article.

## **1. INTRODUCTION**

No country has achieved sustainable economic development without substantial investment in human capital. Previous studies have shown the handsome returns to various forms of human capital accumulation: basic education, research, training, learning-by-doing and capacity building (Rena 2000). Generally in most developing countries, human capital is unevenly distributed. Thomas, Yan and Fan (2000) and Castellow, Amparo and Domenech (2002) have found out that Gini coefficient of distribution of human capital in Sub Saharan Africa and South Asia respectively, is the highest in the world. Rena (2007) came up with the same conclusion not only for Sub Saharan Africa and South Asia but also for the Middle East and North Africa (MENA). Furthermore, according to him, the unequal distribution of income in these regions is due to inequitable education policies of their respective governments who, on average, focus more attention on secondary and tertiary education compared to primary education. Chowdhury (1994) also suggests that there is misallocation of resources by the governments of developing countries that favor higher education, thus neglecting of primary education.

In many countries a considerable proportion of public expenditure for education goes to middle- and upper-income families, because richer groups are over-represented at all levels of education, particularly at the university level. Public expenditure per student increases by each level of education. In African countries, public expenditure per student on higher education is 28 (Francophone Africa) and 50 (Anglophone Africa) times that on primary education (Rena 2007). Further, only a small number of people benefits from high public expenditure per student in higher education. For the developing countries as a whole, only 7 percent of the school-age population enrolls in higher education (Mingat and Tan 1985).

One reason for the bias in education policies in these developing countries towards higher education may lie in the belief that elementary education has a very limited direct role in determining growth rates. The rate of economic growth responds more to secondary or higher education levels rather than elementary schooling (Mingat and Tan 1985). For example in developing countries, international trade, which is one of the key determinants of growth, favors either highly qualified university graduates or those who have at least finished their high school. So it is no surprise that in order to be competitive. Many developing countries have a tendency to invest in higher education at the cost of primary education to achieve greater growth and thus develop their human capital (Rena 2007).

Human capital refers to the skills, education, health, and training of individuals. It is capital because these skills or education are an integral part of us that is long-lasting, in the way a machine, plant, or factory lasts. To highlight their importance, the behavioral guru, Maslow (1968) said, "The most valuable 100 people to bring into a deteriorating economy are not politicians, economists, scientists, engineers but self-motivated, talented and forceful entrepreneurs." The importance of investment in education as a determinant of economic growth and education is also found to be associated with various non-economic benefits. Across countries, there is a broad

consensus that some degree of government involvement is needed in the provision of educational services. Prior to the nineteenth century, systematic investment in human capital was not important in any country. Expenditures on schooling, on-the-job training, and other forms of investment were quite small (Blaug, Layard and Woodhall 1969). This began to change radically during that century with the application of science to the development of new goods and more efficient methods of production, first in Great Britain, and then gradually spreading to other countries. Ultimately, people with skills can generate incomes and wealth more effectively, efficiently and creatively than those without skills and will have fuller lives.

The purpose of this paper is to try to come to grips with the economic dimensions of the manpower scarcity. In this assessment, the focus is made on East African countries. The paper also discusses about the education and human capital accumulation. This paper is been divided into four sections. Section two is devoted for the review of literature pertinent on education economic growth and human capital development. Section three discusses about the manpower scarcity problems in the eight North-east African nations such as: Eritrea, Tanzania, Ethiopia, Kenya, Uganda, Sudan, Djibouti, and Somalia. Final section provides summary and conclusions. The paper is purely based on the secondary sources collected from various documents on Africa and other parts of the world. The data has been collected from different books, journals, reports, bulletins etc.

## **2. REVIEW OF LITERATURE**

Human capital is one of the essential components of personal welfare. In the traditional neoclassical growth models developed by Robert Solow and Trevor Swan in the 1950s, the output of an economy grows in response to larger inputs of capital and labor (all physical inputs). Moreover, human capital has both direct and indirect impact on income. Ill health drains household resources through increased medical expenses and reduced labor productivity and labour supply. The returns to health in rural Ethiopian agriculture, for instance, are more than double of the returns to inputs like fertilizer. Having more skilled labour increases the potential for participating in highly productive activities and earning higher wages, and this is a prerequisite for achieving greater social equity. One of the greatest challenges facing the developing countries is that of strengthening human resources in order to make it possible to systematically adopt technical innovation. Education is also crucial in augmenting earnings and improving survival strategies. For instance, in rural Ethiopia, households headed by individuals with some schooling are better equipped to escape poverty (Hartshorne 1985; Rena 2005).

*“As the late Secretary-General Dag Hammarskjöld stated, "fundamentally man is the key to all problems, not money. Funds are valuable only when used by trained, experienced, and devoted men and women. Such people, on the other hand, can work miracles even with small resources and draw wealth out of a barren land.”*

The meanings and purposes of education and the patterns of development of education systems have been profoundly influenced by history and by recent economic and cultural changes in Africa. Mass education systems utilizing local languages are a relatively recent phenomenon in many countries in Sub-Saharan Africa. Even more recent are the views of education as a basic human need, an integral part of quality of life, a support for moral and social values, and an instrument for economic productivity.

It is a known fact that the economic growth is important for national development. Economic growth is generally assumed to be explained largely by stocks of labor, physical capital, and human capital (improvement in the quality of the labor force). Technology is assumed to be part of the growth equation, and the rate of technological change is associated with the availability of highly educated workers (Rena 2005).

The link between public spending on education and economic growth is by now well-established in the literature. Starting with the work of Schultz (1961) education has been viewed as investment in human capital rather than considered to be consumption good under Keynes' influence. Subsequently, Blaug, Layard and Woodhall (1969); Tilak (1987); Psacharopoulos (1993) and Rena (2000) show that investment in education yields a higher rate of return than investment in physical capital. Romer (1986) and Lucas (1988) have propounded the new growth theories in which sustained long-run growth of per capita income is explained by the likelihood of investment in human capital generating constant or increasing returns. Empirical studies in the literature on education and economic growth also find compelling evidence for the hypothesis that a substantial proportion of the growth of the economies is attributable to the rise in the educational levels of the workforce.

During this 20<sup>th</sup> century, education, skills, and other knowledge have become crucial determinants of a person's and a nation's productivity. One can even call even the twenty first century the Age of Human Capital in the sense that the primary determinant of a country's standard of living is how well it succeeds in developing and utilizing the skills, knowledge, health, and habits of its population. The implications of placing people at the centre of economic and political change are the profound of a human development and the process of development should at least create a conducive environment for people, individually and collectively to develop their full potential and to have a reasonable chance of leading productive and creative lives in accord with their needs and interests. Since politics, economics and societies interface with each other, the political polices affect the economy, and an economic polices affect society. Therefore, fundamental reform in political polices is necessary to curb economic decline, and builds bridge between people and political policies. Evidence continues to mount for a strong positive association between education levels, human capital formation and productivity growth in both agricultural and non-agricultural sectors in developing countries. An important motivation for individuals to invest in education is that the acquired knowledge and skills tend to raise

productivity and hence earnings potential. Education contributes to the consolidation of democracy and the achievement of greater social equity, and both of these are not only ethical imperatives but essential to the full enjoyment of civil rights and responsibilities.

Economic development theorists generally agree that the quality of human resources has a significant bearing on economic advancement and growth. Developing a skilled man power requires an integrated and concerted strategies, policies, plans and programs to ensure the development of the full potential of human beings ... so that they may, individually and collectively, be capable of improving their standard of living. This body of thinking claims that, in the passive sense of the word, larger inputs of higher quality labor result in greater production by virtue of labor's status as a factor of production. Moreover, improving the quality of the labor force yields implicit, non-economic outputs related to the generation of ideas and decisions which have a significantly positive impact on investment, innovation and other growth opportunities. Although various factors determine the quality of human capital and, according to (Hartshorne 1985: 255), there is sufficient evidence to suggest that human capital formation makes a positive contribution towards economic growth (Psacheropolous 1994; Tilak 1994; Rena 2000; Varghese 2004). In short, developing nations with higher human capital rates display a tendency to grow at a faster rate, while also achieving higher physical investment rates. Conversely, the poor economic performances of most of the Sub-Saharan countries can be attributed, in part at least, to the markedly low levels of literacy to form a human capital. Consequently, the definition of a nation's wealth can be measured not only physical capital but also human capital as an independent factor of production required to achieve high and sustainable economic growth rates. In recognition of this relationship, developing nations have, in varying degrees, attempted to stimulate the accumulation of human capital through public education expenditure as well as government spending on health and related social services. The success of government initiatives in this regard can be gauged when 4 percent or more is allocated to public education and human capital formation expenditure. However, although this represents an improved performance on previous standards, comparable data show that the same countries allocated almost 5 per cent of GDP to defense (World Bank 1992: 141-143).

Further, investment in human capital enables a country to effectively exploit the benefits of technical and technological advancement, as well as maintaining that advancement. This view, shared by most development economists, is succinctly summarized by Harbison (1973: 3) who states that "*... human resources - not capital, nor income, nor material resources - constitute the ultimate basis for the wealth of nations ... Clearly, a country which is unable to develop the skills and knowledge of its people and to utilize them effectively in the national income will be unable to develop anything else.*" Although opinions differ regarding the most appropriate ways of fostering and inculcating the attributes assumed to accrue from an improvement in human capital, it is generally accepted that at least primary and preferably also secondary school education, as well as health expenditure, are essential first-level requisites.

For various reasons developing economies may suffer from a shortage of labor (Rena and Khasu 2006). In that case the military may be an effective instrument in mobilizing human resources, promoting a disciplined work-ethic and fostering basic work skills. Moreover, as postulated by Deger (1986), technical training is a vital element of military service and thus augments the skill content of the existing labor force. Military research and development is, in turn, inextricably linked to an increase in both the quantity and quality of technological expertise and skills. Thus, even though the primary purpose of the military is not skill creation, it can make a significant contribution in that regard. Government revenue in low-income developing countries, with relatively unsophisticated financial systems, is fairly inelastic. Under these conditions a significant rise in military expenditure can only occur at the expense of other government outlays, not least of which investment in human capital. Thus, within the constraints imposed on government revenue it is possible to postulate a negative relationship between defense and human capital. By the same token, conventional wisdom dictates that countries with high growth rates are able to generate sufficient revenue to nurture and expand human capital. Developing nations should adjust to the change by cultivating greater productivity. When labor becomes scarcer, economic growth should be based on increased productivity. It is important to create a productive market environment for investors and enterprises so that rising labor costs do not increase prices (Deger 1985; Lachman and Bercuson 1992).

If, as has been suggested earlier, defense expenditure stimulates economic growth, then it may be claimed that defense indirectly supports human capital formation *via* growth. However, although theoretically plausible, the direction of causation embraced in this transmission mechanism would appear to be somewhat perverse.

The World Bank in its study realizes this fact: *“For a given rate of growth, the extent of poverty reduction depends on how the distribution of income changes with growth and on initial Inequalities in income, assets and access to opportunities that allow poor people 10 share in growth ..... how growth affects poverty depends on how the additional income generated by growth is distributed within a country”* (World Bank 2001:52).

It is believed that the growth is good for poor whereas inequality is not good. Since pro-growth policies sometimes put an upward pressure on inequality, as it is in the case of higher education focus in developing countries, growth itself is not sufficient for pro-poor outcomes. Now more relevant question is how to align growth with poverty alleviation? The simple answer is to sterilize any adverse distributional effects of pro-growth policies to make growth a ‘chaste pro-poor experience’ (Mamoon 2007: 97).

The formation of human capital is necessary to seed a perceptible impact on economic development a nation needs to have a minimum captious mass of at least 70 per cent or more literate population. What this means is that if an overwhelmingly

large number of people in a country are literate, even with simple basic education as being able to read newspapers, this may open up the minds of the masses, possibly make them more enlightened workers and perhaps institute some element of discipline in them. These are, of course, some of the essential prerequisites for a large organized production to run efficiently and for leading to rapid growth. Through mass literacy, better prepared healthy workers, better investment opportunities and friendly government policies, East Asian developing countries seem to have been able to furnish those essential elements of rapid growth at the very early stages of their development (Tilak 1994). Thus, in many decades, the above mentioned developing countries lagged far behind to the extent that any catching up in the near future to the level of the latter countries would be a very challenging on them. While there has been considerable growth in low-skill, poorly paid services, the trend for international competitiveness is clear. Countries must raise skill levels to raise living standards in open, competitive markets. There is no other way to keep up - and improve - competitiveness. It is possible for short periods to enhance competitiveness based on unskilled labor. This is the case with economies like Bangladesh or Mauritius, which have focused their competitive advantages on garment assembly. However, this is only an entry-level strategy. Maintaining a competitive edge with rising wages in low technology activities is certainly possible, but it calls for more advanced skills. In any industry, it requires sophisticated design, quality control, logistics and delivery as product cycles become shorter and reliable, rapid delivery becomes vital to winning orders.

Educated workers are more likely to participate in the labor market, and their active working life is generally longer than that for those with lower educational attainment (Rena and Kahsu 2006). With very few exceptions, the participation rate for male graduates of tertiary education is markedly higher than that for upper-secondary graduates. And among women, the differences in labor force participation by level of educational attainment are much lower still. Human capital is a broad concept which identifies human characteristics which can be acquired and which increase income. It is commonly taken to include peoples' knowledge and skills, acquired partly through education, but can also include their strength and vitality, which are dependent on their health and nutrition. Human capital theory focuses on health and education as inputs to economic production. This is in contrast to the concept of human development which views health and education as intrinsically valuable outcomes to be placed alongside economic production as measures of human welfare.

Many developing countries (India and Mexico) have developed sophisticated schemes to court remittances and financial repatriations aggressively while others (South Korea and Taiwan) have successfully sought to attract former emigrants back to their home countries resulting in a "reverse brain drain". As such, countries are beginning to awake to the policy instruments available to them in response to these large flows and the consequent large stock of citizens abroad Botswana was one of the 25 poorest countries in the world in 1966, but graduated to a middle income country, with an income per head of over \$4,000 in 2004 (Botswana Statistical Report 2004). Strategic policy considerations were also issued under five major categories. These are:

Institutional Arrangements and Regulatory Environment; Education, Training and Entrepreneurship Development; Access to Finance; Market Opportunities; and Technology Support.

Poor countries have considerable discretion over how much to invest in health and education. Since independence, Africa has achieved a rapid growth of some aspects of human capital - particularly in the expansion of education - despite starting from a low level of income. The expansion of the human capital stock has not been matched by a commensurate rise in physical capital. The result has been low growth of incomes and low returns to the educational investment. Africa has higher adult literacy rates than South Asia. This largely reflects the higher rates of literacy among women in Africa compared to South Asia (43 percent compared to 34 percent; for men, literacy rates are 64 percent and 62 percent respectively). Nonetheless, African men are still nearly 50 percent more likely to be literate than African women. Africa's superiority in literacy rates is likely to be eroded over time: school enrolment rates are now lower in Africa than in any other region of the World. It is to note that over 42 million children in Africa are not enrolled in the primary schools. Since the international experience has been that it is difficult to prevent emigration, the real policy challenge is how African countries can maximize the benefits from their population living and working overseas. Remittances should be the most immediate focus, as they can affect growth through investment, both physical and human. Evidence from micro-level studies suggests that remittances lead to greater human and physical capital investment.

There are gender differences in the allocation of human resources in Africa, although these may be largely confined to education. Psacharopoulos (1994) studies that the social rate of return on primary education in sub-Saharan Africa (SSA) was estimated to be 24 percent, for secondary education it was 18 and for higher education 11 percent. Private returns were higher at 41, 27 and 28 percent respectively. This is especially true for SSA nations. It is easier to formulate sound policies on papers, but policy implementation is the most challenging task. Formulating effective and knowledge policy implementation strategies is instrumental for the realization of development goals. For almost four decades, SSA nations were on the spotlight as to how to design lasting and meaningful human development policies and overhaul their economies. However, none of the grand policies and strategies came for fruition except some strategies that were materialized temporarily but vanished like a phantasmagoria due to lack of sound and operable economic policy which ought to have been holistic (Pasacharopoulos and Patrinos 2002).

Much as the evidence is erratic and for most part unreliable, one can obtain a good sense of the magnitude of the problem of skilled manpower in Africa (Rena 2007). It has been estimated that for a number of African countries, more than 30 percent of its highly skilled professionals are lost to the OECD countries. Nearly 88 percent of adults who emigrate from Africa to the United States have a high school education or higher (Hayes 1976). The survey of African immigrants in the USA found that 58 percent of the respondents had either Ph.Ds or were MDs and a further 19 percent had



Masters Degrees. Out of these, 20 percent had been previously university professors in their home countries. This compares with 40 percent for all immigrants into USA with tertiary education. Based on a more systematic analysis of the 1990 USA Census results, out of 128,000 African immigrants over 25 years old, 95,000 were highly educated. There are more African scientists and engineers working in the USA than there are in Africa. The emigration of technically skilled people has left 20,000 scientists and engineers in Africa servicing 600 million people (Rena 2007). The main cost is the loss of investment in education. UNHCR, (2001) estimates that the educational capital embodied in highly skilled graduates who immigrated to the United States in 1990 alone was \$640 million. It concludes that emigration can represent a significant transfer of resource from poor countries to rich.

**Table-1 Return status by Country of Ph.D recipients -1986-1996**

50% + Returns			Returns Rates %		
Home	Ph.Ds	Home	Africa	USA	Other
Kenya	155	65%	5	28	2
Tanzania	58	79%	2	19	
Uganda	54	79%	3	17	
Somalia	17	33%	11	56	
Ethiopia	89	47%	4	47	2
Sudan	92	48%	5	35	11
Eritrea	-	-	-	-	-

**Source: Zeleza (1998)**

### 3. HUMAN CAPITAL IN EAST AFRICAN STATES

#### 3.1. Eritrea

Eritrea is one of the youngest nations in Africa, gained independence in 1991. Eritrea's most pressing challenge is creating a professional, capable and educated workforce to prepare the nation for economic advancement. Nearly 75 percent of the population is engaged in agriculture. Diversifying the workforce must therefore be a priority. Labor scarcity is a major issue for the Eritrean manufacturing sector. The data confirm strongly that labor is in fact scarce and it is driving up the cost of production. Between end-2001 and May 2002, earnings over the sample increased by 17 percent, pointing to the enormous problem of scarcity of labor in an already difficult operating environment. In the Eritrean case, the years of conflict and military mobilization may have compounded overall labor scarcity. The Eritrean labor force consisted of about 2 million persons in 2005, or about 50 percent of the total population. The manufacturing labor market is a tiny fraction of the overall labor market, accounting for about 1.4 percent of the labor force in 2005.

The results of the analysis clearly indicate that labor is an overarching constraint on the competitiveness of the manufacturing sector in Eritrea. The labor shortage affects firms' ability to grow and compete in regional and international markets. Unit labour

costs, a rough indicator of competitiveness, show that Eritrean labour is cheap relative to other parts of the world. It may well be the case that once labor is freed up and other key problems are addressed, there will be a surge in productivity and exports. The evidence suggests that swift implementation of the current demobilization program and the establishment of appropriate re-training programs for former soldiers should remain at the top of the policy agenda. Eritrea is facing a critical labor shortage, partly the result of recent conflict. Hence, the country hired many teachers, professors, doctors, engineers, agricultural experts, technocrats, etc., from many countries particularly from India, China, and Cuba. Mobilization has drained white collar and skilled workers, resulting in high female participation rates, rising wages and declining employment. High unit labor costs are affecting private sector competitiveness and export potential (World Bank 2001).

### **3.2. Tanzania**

The socio-economic structure of the Republic of Tanzania favors the establishment of small-scale industries to help the country to achieve self-reliance, rural development and long term socialist transformation. Small-scale Industries (SSIs) require less capital investment and shorter gestation periods, and provide employment to a larger number of people for a given cost. They help in taking industries closer to the resources in rural areas and thus favor balanced regional development and high level of community or cooperative control over the means of production. In recognition of these advantages the promotion of SSIs is a major element of Tanzania's development policy. One of the factors contributing to poverty in Tanzania is lack of equal access employable skills to enable disadvantaged populations to engage into productive activities and increase earnings. Vocational Education and Training (VET) policies which promote equitable VET access by the disadvantaged because of gender geographical location, physical disabilities groups, including those disadvantaged will contribute towards poverty reduction and eventually eradication.

The fact that the formal sector is creating fewer jobs means that the Tanzanian economy is largely made of the informal sector and agricultural subsistence producers. The informal sector activities account for about 65percent of the urban population, and that 80 percent of the Tanzanian labor force is engaged in agriculture. However, when compared economically, the informal sector though providing employment to many in urban areas, its contributions to the GDP is fragile due to inadequacy of skills, poor technology and weak capital base. VET in Tanzania meets the social and market demands for skills, the aim is produce job creators who are able to employ themselves or be employed in the formal sector. In addition to the decline of employment opportunities in the formal sector, Tanzania significantly faces a shortage of skilled and semi skilled personnel in its economic sectors.

### **3.3. Ethiopia**

One of the major obstacles for the rapid development of the agricultural sector in Ethiopia is the scarcity of skilled and experienced labor. In this regard, agricultural institutions of higher education are expected to play a leading role in training skilled labor that can serve as a catalyst in identifying root causes for low agricultural productivity, devising appropriate remedial measures to other economic sectors to look at factors contributing to their lack of skilled labor. Studies carried out in many developing countries have concluded that investing in human resources development is essential for poverty reduction, efficient utilization of available resources, and economic development. However, one can safely say that institutions of higher education in human resources have been, in general, contributing positively to the national development efforts because in their absence there wouldn't have been the progress achieved so far. The so-called "brain drain" means that for example more than one-third of Ethiopia's doctors have left the country in recent decades. At the same time, Ethiopia spends over US\$ 5.3 million every year in hiring expatriates to address the shortage of qualified staff in the country. Now, the government discusses how to get skilled Ethiopians to move back. Teachers Vocational Education and Training (TVET), a new education and training policy gives special attention by providing broad and multi level foundations. Presently, TVET is divided into training for agriculture, health and teachers training. In 2001-2002, 54,026 trainees took part in the newly designed TVET program at 123 public and 19 non-public training centers. Ethiopia needs skilled manpower for rapid development and growth. It is a clear fact that the presence of properly training and skilled manpower is one of the most important assets and prerequisites of social and economic development.

### **3.4. Djibouti**

Djibouti suffers from a deteriorating economy and a weak productive sector. It is ranked 153 among 174 countries in the UNDP's Human Development Index in 2006. Despite recent modest and stable growth, Djibouti is faced with compelling challenges, particularly job creation and poverty reduction. Unemployment is extremely high at over 50 percent, and is a major contributor to widespread poverty. Efforts are needed in creating conditions that will enhance private sector development and accumulate human capital. These conditions can be achieved through improvements in macroeconomic and fiscal framework, public administration, and labor market. Increasing human capital is a key component of a poverty-reducing and growth-promoting strategy. Progressive liberalization of the economy requires higher education levels to support modernization of the productive sectors. Investment in human capital provides direct economic benefits and improves the general welfare of individuals and of society. In addition, it generates important cross-effects between sectors.

### **3.5. Uganda**

In many areas, Uganda's public service seriously lacks high caliber managers and skilled professionals, e.g., doctors, engineers, accountants, information/technology (IT) specialists, and others. Most strategic functions, including policy formulation and

analysis, rely heavily on expatriate personnel and make limited use of modern management techniques and technologies. Uganda public service is severely constrained to compete with the growing private sector for the few locally-available professionals, particularly since conditions in the public sector remain largely unattractive. Uganda, like the rest of Africa, is experiencing a brain drain and, as the private sector develops, competition for professional skills intensifies. The World Bank's publication, *Can Africa claim the 21st Century*, remarks that "low human capabilities undermine Africa's performance. Some 23,000 highly trained professionals emigrate each year, to be replaced by expatriate advisers funded by foreign technical assistance." Uganda vision 2025 observes that the country's most valuable asset for attaining and sustaining rapid human and economic advancement is its people. Other industries are textiles, cement, plastics, steel, metal products and brewing, are operating well below capacity mainly due to shortages of imported materials, spares and fuel, inadequate infrastructure and a lack of skilled manpower. The building industry is hampered by a lack of finance and skilled manpower and most local building equipment factories still produce at only 50 per cent of their installed capacities. Consequently, many finished products, such as cement, sanitary ware, plumbing pipes and glass are imported. Today Uganda recognizes that skilled manpower is the backbone of their success and they take interest in the development and training needs of their workforce.

### **3.6. Kenya**

Human resources (HR) have long been recognized as the cornerstone of any sector to produce, deliver, and manage services. In the health sector, the Government of Kenya (GoK) views human resource development as an essential component of the health system especially in the provision of basic health services. There is growing recognition that HR in the public sector are shrinking dramatically, thereby affecting the delivery of services. Several studies have shown that the emergence and re-emergence of infectious diseases, such as HIV/AIDS, tuberculosis, and malaria, have also increased the demand for health services, putting enormous stress on the existing human resources. Currently, the country faces four main HR challenges. First, Kenya is losing skilled health workers to both the private sector and other countries that offer better financial packages. Second, there is a shortage of skilled workers across the country. For example, in 2004 the (public sector) doctor-to-population ratio was 3:100,000, while the nurse-to-population ratio was 49:100,000. The 2004-2005 Human Resource Mapping and Verification Exercise found that staffing levels do not meet the prevailing Ministry of Health (MoH) staffing norms. Kenya needs a more highly developed system of vocational and technical education and training which will develop only with appropriate leadership. Human resource development has great potential for growth and impact on business and industry in Kenya and Kenyatta University has the potential in personnel and other resources to take a leading role in vocational and technical education and training in Kenya.

### **3.7. Sudan**

Sudan HR is still facing many challenges, including inappropriate policies and decisions related to personnel budgets lead to deficits of key cadres of staff or inadequate salaries that produce dissatisfaction, turnover, and emigration of the most skilled providers and managers Sudan is one of the countries affected heavily by health professionals' migration. According to a study conducted recently, dates back to 1960s around 800 doctors migrate outside Sudan each year following the expansion in medical education during the 1990s. Major destination countries for doctors and pharmacists include Gulf States especially Saudi Arabia besides UK and Ireland. The Sudanese government attention to human resources development is a salient feature of China-Sudan cooperation. According to the eight-point consensus reached at the Beijing Summit of the Forum on China-Africa Cooperation, China shall strengthen cooperation with Africa in such areas as human resources development and education and actively train and develop talent for Africa. Under this model, the Chinese Government and enterprises not only provide capital, technology, and equipment for Sudan, but also attach great importance to Sudan's human resources; they include not only a large number of operatives, but also a batch of mid-level and senior professional managers. The education sector can contribute to the solution of the shortage in trained manpower by raising the percentage of technical education and by training school leavers to meet the needs of the industrial sector. There are other sub-sectors (mining, water, and electricity and building construction 7.7 percent of GNP, the main problems is lack of skilled labor, it is believed education can contribute to the solution.

### **3.8. Somalia**

Somalia, by any international measure of development, is considered amongst the least developed countries in the world. Brain drain - the emigration of skilled workers - is pervasive in Somalia and is a serious barrier to using technology to help such nations expand their economies and raise living standards, an UNCTAD report warns. Somalia -- have lost more than half their university-educated professionals in recent years because these professionals have moved to industrialized countries in search of better working and living conditions. This has been intensified due to the conflict and war with Ethiopia in 2007.

Lost "human capital", as it is called, can have serious consequences. The work of skilled professionals is a precondition for upgrading the productive structures and the exports of Somalia and other developing countries, and for improving the sophistication of domestic businesses not to mention for improving domestic health and education, which benefit entire populations. Without enough trained agronomists, biologists, engineers, scientists, doctors, nurses and information and communication technology (ICT) professionals, it is impossible for the firms and farms of Somalia to use technology to upgrade their products and efficiency - and that makes it difficult for them to face foreign competitors. The emigration of qualified people thus damages long-term growth and development prospects. This is particularly true for Somalia's given their relatively low populations of skilled professionals. Nevertheless, human development indicators in Somalia remain extremely low. Ranked globally, this would place Somalia 161 out of 163 states in among seven neighboring countries

in Eastern Africa and the Horn, Somalia ranks lowest in all indicators. The weakening of government institutions, the collapse of social services, the erosion of property rights, the disruption of livelihoods, the forced displacement of populations, and the stagnation of the economy, invariably lead to a general decline in human capital development indicators.

SOHDEC is private, non-profit education institution to cover the higher education needs of the country. Some of the graduates have been employed by some private companies in the country while others went abroad to pursue their higher education and they received admission from some internationally recognized universities in Uganda, Saudi Arabia, Pakistan, India and United Arab Emirates.

#### **4. CONCLUSION**

Human capital is the stock of skills and productive knowledge embodied in people. Adam Smith in *Wealth of Nations* identified the improvement of workers' skills as a fundamental source of economic progress and increasing human welfare. These improvements are achieved not only through education and formal training but also through learning by doing. From an individual's perspective, investment in human capital is a lifelong process. Knowledge embodied in a person includes abilities for problem solving, command over relevant information, and technical, managerial, and entrepreneurial skills. The traditional position on this issue is that brain drain is a negative externally imposed on the population remaining behind, creating slower economic progress and living standards in poor countries. The emergence of a knowledge economy opens new windows of opportunities for latecomers to achieve faster productivity-based growth.

A healthy, enlightened and innovative population that is equipped with entrepreneurial skills forms a solid foundation for increased labor productivity and accumulation of wealth. Such conditions motivate the people to work hard so as to enjoy a high quality of life. Developing a skilled man-power and entrepreneurship are the major driving forces of growth and prosperity, and the core elements of national economic development policies. In order to respond to skilled man power, the public sector must depend on the quality of its human resources. It is essential therefore to improve and upgrade the caliber of human resources in the public sector since this will determine the character and effectiveness of an administrative system. Human capital is an important determinant of individuals' earning capacity and employment prospects, and therefore plays an important role in determining the level and distribution of income in society

Thus, the return of the social sector investment is a long term continuous proposition and, therefore, and interaction between the school and the social environment must be encouraged in these African countries. This means moving towards more intensive education, with emphasis on the production and dissemination of scientific and technological know-how, without detriment to the humanistic aspects that are essential to developing responsible citizens. We believe that a well-educated,

innovative and skilled population is the foundation as well as the goal of development. It is also the surest way to eradicate poverty. The education and training systems of all these East African nations will be developed and create opportunities for the future of millions of children and of the nations themselves.

## REFERENCES

- Blaug, M, P.R.G. Layard and M. Woodhall. 1969. *The Causes of Graduate Unemployment in India*. London: Allen Lane the Penguin.
- Castellow, Climent, Maria Amparo and Rafael. Domenech. 2002. Human Capital Inequality and Economic Growth: Some New Evidence. *Economic Journal*, Vol.112: C187-C200.
- Chowdhury, Kowsar P. 1994. Literacy and Primary Education, Human Capital Development and Operations Policy. *Working paper (HCOWP) 50*; [http://www.worldbank.org/html/extdr/hnp/hddflash/workp/wp\\_00050.html](http://www.worldbank.org/html/extdr/hnp/hddflash/workp/wp_00050.html) (retrieved on 8 August 2007)
- Deger, S. 1985. Human Resources, Government Education Expenditure, and the Military Burden in Less Developed Countries. *The Journal of Developing Areas*, 20(1)
- Deger, S. 1986. *Military Expenditure in Third World Countries: the Economic Effects*, London: Routledge and Kegan Paul.
- Harbison, F.H. 1973. *Human Resources and the Wealth of Nations*. London: Oxford University Press.
- Hartshorne, K.B.(1985. Education and Development in the South African Context. *Development Southern Africa*, 2(2).
- Hayes, M.D. 1976. Policy Consequences of Military Participation in Politics: An Analysis of Tradeoffs in Brazilian Federal Expenditures. In: Liske, C., W. Loehr, and J. Mc Camant (eds.). *Comparative Public Policy*. New York: Wiley.
- Hess, P. and B. Mullan 1988. The Military Burden and Public Education Expenditures in Contemporary Developing Nations: Is There a Trade-off? *The Journal of Developing Areas*, 22 ((July).
- International Monetary Fund (IMF). 1986. *International Financial Statistics (Supplement on Government Finance)*. Washington, D.C.: IMF.
- Janowitz, M. 1992. *Military Institutions and Coercion in the Developing Nations* (expanded edition), Chicago: University of Chicago Press.
- Lachman, D. and K. Bercuson 1992. Economic Policies for a New South Africa. Occasional Paper 91. Washington, D.C.: International Monetary Fund.
- Lucas, R. E. 1988. "On the Mechanics of Economic Development", *Journal of Monetary Economics*, 22: 3-22.
- Mamoon, Dawood. 2007. Formulating Effective Higher Education Policies under Millennium Development Goals. *Journal of Educational Planning and Administration*, XXI,( 2): 93-107 (April).
- Mingat, Alain and J. P. Tan. 1985. Subsidization of Higher Education versus Expansion of Primary Enrolments: What Can a Shift of Resources Achieve

- in Sub-Saharan Africa?" *International Journal of Education Development*, 5: 259-68.
- Psacharopoulos, G. 1993. Returns to Investment in Education: A Global Update. PR Working Paper No. WPS 1067, World Bank, Washington, D.C.
- Psacharopoulos, G. 1994. Returns to Investment in Education: a Global Update, *World Development*, 22: 1325–1343.
- Pasacharopoulos, G. and H Patrinos. 2002. *Returns to Investment in Education: A Further Update*. World Bank Policy Research Working Paper 2881, September.
- Rena, Ravinder. 2000. Financing and Cost Recovery in Higher Education: A Study with Special Reference to Private Colleges in Andhra Pradesh. *Theses submitted for the award of Doctor of Philosophy in Economics, Dept. of Economics, and Osmania University*. Hyderabad: India.
- Rena, Ravinder. 2005. Financing of Education in Eritrea – A Case Study on Zoba Maakel. Albany (USA): *The African Symposium*, 5 (3):113-128 (September). A Publication of the African Educational Research Network [www2.ncsu.edu/ncsu/aern/TAS5.3Rena.pdf](http://www2.ncsu.edu/ncsu/aern/TAS5.3Rena.pdf)
- Rena, Ravinder. 2007. Higher Education in Africa – A Case of Eritrea. *Journal of Educational Planning and Administration*, XXI (2): 125-140 (April).
- Rena, Ravinder and Biniam Kahsu. 2006. Labour Market Needs and Development of Technical and Vocational Education in Eritrea. New Delhi (India): *Manpower Journal*, XXXXI (4):137-154 (October- December), (A Quarterly Journal of the Institute of Applied Manpower Research –IAMR).
- Romer. P. M. 1986. Increasing Returns to Long-Run Growth. *Journal of Political Economy*, 94: 1002-10037.
- Schultz, T W. 1961. Investment in Human Capital. *American Economic Review*, 51(1).
- Tilak, J.B.G. 1987. *Economics of Inequality in Education*. New Delhi: Sage Publications/Institute of Economic Growth.
- Tilak, J.B.G. 1994. *Education for Development in Asia*. Delhi: Sage Publications.
- Thomas, Vinod, Wang, Yan and Fan, Ibo. 2000. Measuring Education Inequality: Gini Coefficients of Education, Mimeo, Banque Mondiale.[http://econ.worldbank.org/files/1341\\_wps2525.pdf](http://econ.worldbank.org/files/1341_wps2525.pdf)
- Todaro, M.P. 1996. *Economic Development in the Third World*, (8 edn.). London: Longman.
- Varghese, N.V. 2004. *Institutional Restructuring in Higher Education in Asia: Trends and Patterns*. Paris: UNESCO-IIEP.
- World Bank. 1992. *Social Indicators of Development 1991-92*. U.S.A.: Johns Hopkins University Press.
- World Bank. 2001. *World Development Report 2000/1: Attacking Poverty, 2001*.
- Zelesa, P. T. 1998. *African Labor and Intellectual Migrations to the North: Building New Transatlantic Bridges*. Urbana: Center for the Studies of African Studies, University of Illinois at Urbana-Champaign.

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