

ISSUES OF HUMAN RESOURCES DEVELOPMENT IN ETHIOPIA WITH PARTICULAR REFERENCE TO EDUCATION

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I. INTRODUCTION

Human resources development (HRD) can be broadly defined as the development and utilization of human potentials for social and economic progress, essentially through education, training and employment. HRD basically entails the acquisition of skills and knowledge by the population of a country. As Hallak noted, education is "an essential factor in the improvement of health and nutrition, for maintaining high-quality environment, for expanding and improving labour pools, and for sustaining political and economic responsibility [Hallak 1990: 1].

The recognition of the importance of education for socio-economic development goes back to the "Age of Enlightenment".

Rather than regarding the learning of skills and knowledge as virtuous pastime or merely to carry out important political and civil operations (as in the case of Egyptian, Greek and Roman scribes) men of Enlightenment saw cognitive development and the pursuit of knowledge as essential not only for the survival but also for the advancement of society itself [Fagerland and Soha 1987: 32].

Japan's post-World War II rapid industrialization, economic and social development is often cited as a classic example to show the direct contribution of education to development.

In recent years, especially by the late 1950s and early 1960s, there was general agreement among politicians and planners that education is a key change agent for moving societies along the development continuum. Thus governments in developing countries gave high priority to education -- both to universalize primary education, and to meet their middle and higher level manpower requirements. The strong government commitment and social demand for education led to the explosion of school enrolment between 1960 and 1980.

According to Hallak between 1960 and 1980, the total world enrolment of students at all levels of education nearly doubled, and most of this increase took place in the developing world. This expansion in enrolment has not been confined to the formal system, but there has been growing numbers of adults engaged in non-formal education and programmes.

The proportion of six- to eleven-year-old children with no schooling declined from 43 per cent in 1960 to 28 per cent in 1980 for developing countries in general

and from 70 per cent to 40 per cent for Africa in particular. The world illiteracy rate had fallen below 50 per cent in the late 1960s, and by mid-1980s, the illiteracy rate of developing countries had fallen to 38 per cent, an extraordinary performance. The numbers and proportions of the relevant age group attending secondary and higher education also grew substantially.

The educational development experienced in the 1960s and 1970s -- the decline in the proportion of illiterate adults, the rapidly rising number of students enrolled in primary, secondary, technical and tertiary level educational institutions -- can serve as proxy indicators for measuring the positive change in the level of HRD in developing countries.

These rapid rates of expansion of enrolment of the 1960s and 1970s, however, could not be sustained into the 1980s. The economic crisis of the 1980s has led to an educational crisis. Developing countries could not finance the required increasing levels of educational costs, hence stagnation of school enrolment and deterioration of the quality of education assumed crisis proportion in many developing countries. The serious challenges and issues facing HRD in many developing countries today are, therefore, closely related with the economic and educational crises they are faced with.

The objective of this short paper is to give an overview of the current level of HRD in Ethiopia, major issues in HRD, and recommendations of policy measures which should be looked into in grater scope and detail.

II. HUMAN RESOURCES DEVELOPMENT IN ETHIOPIA: AN OVERVIEW

As noted above, education being the basic component of HRD, the level of educational development attained by a country's population can be used as a measure to assess the country's level of human resources development. Educational development can be assessed in terms of literacy rates, primary and secondary participation rates, the diversity, level and number of graduates of technical and higher education institutions. This is the quantitative aspect of educational development.

The other aspect of educational development is the qualitative dimension which is relatively difficult to measure. The discussion hereunder deals mainly with the quantitative aspect. Some general remarks of a qualitative nature are also forwarded to qualify the quantitative development.

A. The Level of Literacy of the Population

As a result of 22 rounds of National Literacy Campaign programmes carried out between July 1979 and January 1990, the country's level of literacy had been raised from less than 10 per cent before 1979 to 62 per cent in 1990. Out of the 22.3 million adults who had participated in the 22 rounds of literacy campaign, 20.5

million have passed the basic literacy test, 50.5 per cent of which were female. About 14 million are attending the post-literacy programme (i.e., 70 per cent).

The 62 per cent literacy rate mentioned above is based on the assumption that all the participants who have passed the basic literacy test have acquired the required level of literacy skills and knowledge. Considering the low literacy level of the pre-1979 years, the result achieved by 1990 is quite impressive. It implies a positive change in the level of development of the country's human resources.

However, if one looks into the basic problems facing the literacy programmes, this level of literacy rate may need to be adjusted downwards. One of the major drawbacks of the programmes is the inadequacy of the level of pre- and in-service training of the literacy teachers, who are basically volunteer campaigners and whose qualifications do not fully correspond with the criteria set for selecting literacy teachers. The other major problems include the inadequacy of the assessment mechanism and the lack of a "literate environment".

The most critical problem facing Ethiopia's literacy programmes is lack of a "literate environment", which is an essential condition for retaining literacy skills and to protect against relapse into illiteracy. This environment, providing the opportunity of reading, writing and computation, is vital to motivate the neo-literates to retain and enhance their newly acquired skills.

Given Ethiopia's situation, where there is an acute shortage of paper, personnel and limited printing capability, where the minimum package of textbooks and other teaching materials cannot be produced even for the formal school system, and where it is not possible to produce adequate number of weekly or daily newspapers to satisfy even the major urban centers, one can conclude that this "literate environment" is almost non-existent.

Thus, it is very likely that most of the neo-literates of the last ten years have either lost their skills already or will relapse into illiteracy in the near future. Therefore, the 62 per cent literacy rate can be considered to be on the high side.

The other important adult training programme, which is complementary to the National Literacy Campaign, is the community skills training programme. There are 404 community skills training centers whose training objectives include upgrading of local skills, introducing basic modern skills and vocations in various fields and focusing on selected members of the community.

Between 1977 and 1989, over 191,000 members of rural communities were trained in various trades and development activities. While the number of adults who participated in the training programmes over the years has not been substantial (the centers have been working at 48 per cent capacity), the expected multiplier effect of the programme may have had some positive impact on the development of skills of the rural communities. Moreover, the additional functions rendered by the

centers -- serving as community reading rooms, bakeries and shops, poultry and bee-keeping farms, training centers for literacy teachers, and stores for literacy materials -- have been supportive to the HRD efforts of the rural communities.

B. Participation in Primary Education

Primary school enrolment (grades 1 to 6) increased from 859,000 in 1974 to 2,855,846 in 1989. This had raised the percentage of seven- to twelve-year-old children having access to schools from 15 per cent to 34 per cent. While the 8.3 per cent growth in enrolment (11 per cent between 1974 and 1983 and 4.5 per cent between 1983 and 1989) has been quite substantial, there is still a long way to go to achieve the objective of universalizing primary education in Ethiopia. Two out of three primary school age children do not yet have the opportunity to go to school. This figure puts Ethiopia along with four other African countries lagging behind in providing primary education even to 50 per cent of their primary school age population.

Hence, the world declaration of achieving or approaching "Education for All by the Year 2000" appears to be a distant dream. Reaching 50 per cent of the children by the year 2000 might be a more realistic target for Ethiopia, given the unfavorable state of its economy.

Besides its low coverage, primary education is inequitably distributed. Primary school opportunities are concentrated in the urban areas.

The other feature of the inequality in the distribution of educational opportunities is related to the male-female distribution. Despite the relatively faster rate of growth of female enrolment (9.8 per cent between 1974 and 1988), the proportion of girls to boys was 64 to 100 in 1989. This ratio was 47 to 100 in 1974. The female enrolment rate is only 17 per cent lower in sub-Saharan Africa and 3 per cent the Caribbean as compared to 36 per cent for Ethiopia.

Table 1: Increase in the Primary School Enrolment 1974 - 89

Enrollment ('000)	1974	1983	1989
Males	585.6	1,386.3	1,743.9
Females	274.2	803.5	1,112.8
Totals	859.8	2,189.8	2,855.8
Females as % of Males	47	58	64

The issue of the quality of education is a complex subject. It means more than its customary definition of students' learning achievements in terms of curriculum and standards. It also "pertains to the relevance of what is taught and learned, to how well it fits the present and future learning needs of the particular learners in question, given their particular circumstances and prospects".

The purpose here is not to discuss these fundamental issues of quality of education, but to look into some of the changes in the inputs of the educational system, particularly teachers, which can serve as an indirect measure of quality. While the increase in the number of primary school teachers had kept pace with enrolment at a national level, a class size of up to 120 students in urban schools, and the shift system introduced in most urban areas, do imply quality problems. In the double-shift schools, the six periods of 40 minutes each, which are very unlikely to be used fully, restricts the effective teaching time that the teachers have every day.

The other indirect indicators of poor quality education are the high rates of wastage. Out of every 100 pupils entering grade 1 in 1984 only 39 completed grade 6 at the end of 1989. The 1989 drop-out and repetition rates at the first grade were 32 per cent and 18 per cent respectively. The inability to provide the required minimum package of textbooks and teaching materials also shows that the quality of education is suffering.

Considering basic education as human right and the established positive contribution of primary education to economic productivity, the fact that primary education has not reached two-thirds of the Ethiopian children and its poor quality imply a low level of HRD in Ethiopia.

C. Development of Secondary, Technical and Vocational Education

Secondary education is divided into two levels: junior and senior secondary. During the period 1974-89, junior secondary school enrolment rose from 101,749 to 434,684, increasing at an annual average rate of 10 per cent. Enrolment figures in senior secondary schools were 81,296 in 1974 and reached 412,571 in 1989, increasing at an annual average rate of 11 per cent between 1974 and 1989. These increases in enrolment had raised the junior secondary school participation rate from 7 per cent to 19 per cent and that of senior secondary schools from 3 per cent to 11 per cent.

As is the case with primary education, secondary education opportunities have not been equitably distributed. The number of female students as percentage of the males was 69 per cent in junior secondary schools and 64 per cent in the senior secondary schools in 1989. These rates are comparable with the 68 per cent rate for sub-Saharan Africa. The percentages for 1974 were 43 per cent and 31 per cent in the junior and senior secondary schools respectively. While this change in the proportion shows a positive development in favour of the female population, there are still wide gaps to be narrowed.

For a country at Ethiopia's level of socio-economic development, post-primary level of education may not be considered as basic human right, as is the case for literacy and universal primary education. Expansion of secondary education should mainly depend on the country's requirement for middle and higher level manpower and on the country's ability to finance its expansion.

Table 2: Enrolment Increase in Secondary Schools 1974-89

Enrolment (100)	1974	1983	1989
Junior Secondary			
Male	71.2	178.3	257.0
Female	30.5	93.4	177.6
Total	101.7	271.7	434.6
Females as % of males	43	52	69
Senior Secondary			
Male			
Female	62.1	175.0	251.3
Total	19.2	96.3	161.3
	81.3	271.3	412.6
Females as % of males	31	55	64

Ethiopia's relative position with regard to secondary school participation rate, compared to sub-Saharan Africa, is relatively better than its performance in primary education. Ethiopia's participation rate for 1986 (12 per cent) was higher than 11 countries in the region. On the other hand, its position was much lower than countries like Mauritius, Zimbabwe, Swaziland, Madagascar and Ghana, which had reached participation rates of 51, 46, 43, 36 and 35 per cent respectively -- another indicator of the low level of development of Ethiopia's human resources.

There are indicators showing that secondary education also suffers from qualitative weaknesses. It is characterized by high repetition and drop-out rates. For the years between 1987 and 1989, the average repetition rates were 11.1 per cent and 11.6 per cent for junior and senior secondary schools respectively. Out of every 100 students entering grade 8 between 1981 and 1985, an average of 41 were able to reach grade 12 after four years.

The poor quality of secondary school teachers, inadequacy of textbooks, instructional materials, laboratory and workshop equipments, the overcrowding of schools, and the shift system have all contributed to the problem of quality in secondary education.

While the minimum qualification-mix set for teachers of junior secondary schools has been 70 per cent diploma and 30 per cent certificate-holders, only 32 per cent of the teachers were diploma-holders. In the case of senior secondary school teachers, only 38 per cent held degrees as against the required qualification-mix of 85 per cent degree and 15 per cent diploma-holders.

The other fundamental and difficult aspect of the quality issue is relevance -- broad vocational relevance versus specific job relevance, relevance to agricultural and

rural development, to small businesses, private and self-created jobs. These issues of relevance are very important in light of the country's mounting problem of school-leavers' unemployment.

The country has 16 governmental and non-governmental technical and vocational schools, training middle level manpower in 21 technical and vocational fields. Considering the employment problem facing the graduates, the annual intake of new trainees of these schools is limited to 1,500. This averages to 94 students per school and to a total student population of about 300 per school, an indication of the schools working under capacity.

Over the period 1986-90, an average of 1,618 middle level manpower had graduated annually. Among these graduates, 328 were in the fields of bookkeeping and secretarial sciences.

Considering the small number of graduates, it appears that the country is, in fact, underproducing middle level manpower, implying the country's low level of human resources development. But, on the other hand, the fact that some of these graduates are facing unemployment problems, indicates the economy's low absorptive capacity.

Unlike the general secondary level education, the issue in the technical and vocational education is more of relevance than quantity. The solution to the unemployment problem of the graduates of technical and vocational schools should be sought by improving the quality of training rather than through the current practice of cutting enrolment and working under capacity. Given the country's development potential and the important role of skilled manpower, especially at the middle level, the current level of output from these technical and vocational schools cannot be considered even adequate. The issue here is not that of overproduction of graduates, but that of the limitedness of the economy's demand for manpower and education. Designing of relevant curriculum geared to the country's needs, including the private and informal sectors, agricultural and rural development and self-employment, may help in enhancing the economy's ability to absorb these graduates.

D. Development of Higher Education

Total enrolment at tertiary level education had reached 17,613 in 1989. As a percentage of university level age group (20-24), this number amounts to 0.5 per cent, as compared to 1.2 per cent average for the sub-Saharan African countries. While the value of this measure as an indicator is not as important to higher education as it is for lower level education, it nevertheless gives some idea of Ethiopia's relative standing in the development of higher education as compared to other countries.

Distribution of total enrolment by levels of education was 38 per cent in the diploma, 59 per cent in the first degree, and 3 per cent in the postgraduate

programmes. Breakdown of this enrolment by level and broad area of specialization is given in Table 3.

Table 3: Enrolment by Level and Area of Specialization 1989

		Level					
		Diploma		Degree		Total	
		Number	Per cent	Number	Per cent	Number	Per cent
1	Natural Sc.	-	-	2,634	25	2,634	15
2	Social Sc.	1,532	23	2,671	26	4,203	25
3	Technology	1,177	18	1,157	11	2,334	14
4	Agriculture	1,508	22	1,812	18	3,320	19
5	Medical Sc.	620	9	1,207	12	1,827	11
6	Pedagogical Sc.	1,876	28	508	5	2,384	14
7	Language Studies	-	-	338	3	338	2
	Total	6,713	39	10,327	61	17,040	100

From the total enrolment, excluding postgraduate programme students, 61 per cent were degree students or, in other words, for every 100 degree students there were 65 diploma students -- a sign of lopsided development. The total enrolment in 1979 was 14,380, of which 36 per cent were diploma students. Hence, there has only been a slight improvement over ten years.

The other aspect that should be looked into is the distribution of students by broad fields of study. As shown in Table 3, the share of the social sciences (25 per cent) is the largest. Then follow agriculture, natural science, pedagogical sciences, technology and medical science, in that order. If we look at the degree programmes alone, again social science had the lead, followed by natural sciences and agriculture.

A number of observations can be made regarding this distribution. The largest share taken by the social sciences may not be justifiable on the basis of manpower requirements, but the relatively lower unit cost associated with social sciences training may have been the reason. The converse might be an explanation for the lower share taken by technology, in the light of the observed shortfall of supply of technologists over demand. The second point that can be made is in relation to the field of pedagogical sciences. Lack of adequate capacity of degree-offering

pedagogical institutions had resulted in the distortion of the distribution between natural and pedagogical sciences in the degree programmes. Given the limited demand for natural science degree graduates, they end up in securing employment in the teaching profession -- a last resort employment. This is an issue which needs closer attention. The third point that should be looked into is related to the distribution of specialization between levels. The wide differences in the distribution of students between diploma and degree programmes, especially in the area of medical and natural science, need closer look. Training cost, employment and manpower utilization considerations can be used to justify the greater number of diploma-holders than degree-holders. In some activities, splitting a job may help to use different mixes of qualifications.

The other aspect of development in higher education is the issue of quality. While this issue needs extensive and deeper investigation, it will suffice here to pinpoint some indicators that can give some light on the issue of quality. The number and qualification of the teaching staff of higher education institutions in Ethiopia is less than adequate. Teacher/student ratio and qualification-mix varies between different institutions, but the national average for 1990 was 1:12, as compared to 1:8 for universities in eastern and southern African countries. The situation with regard to teacher's qualification is far from adequate. In 1989, 22 per cent of Addis Ababa University's staff, and 29 per cent of Alemaya University's staff had bachelor's degree or less. These institutions, being postgraduate degree-offering institutions, had only 42 and 18 per cent of their staff holding PhD degrees.

The adequacy and quality of textbooks, journals and library books available in an institution can also serve to indicate the quality of education it offers. In the mid-eighties, the Addis Ababa University, for instance, had 25 library books per student, as compared to 61 books per student, the average for the universities in the eastern and southern African countries. The University of Dar es Salaam and universities in Malawi and Lesotho had 154, 179 and 133 library books per student.

III. MAJOR ISSUES IN HUMAN RESOURCES DEVELOPMENT

In as far as the level of educational development is taken as a measure of HRD, problems and issues facing educational development are issues of HRD too.

The basic problems facing HRD in Ethiopia are its current low level of development -- both quantitative and qualitative -- and the challenges and issues its future development poses. The major issues related to HRD include the following.

A. Issues Related to Literacy

As it has been pointed out in the previous section of this paper, encouraging results have been achieved in the literacy campaign programmes. It was estimated that a literacy rate of 62 per cent has been achieved.

However, considering the inadequacy in the assessment, the possible relapse into illiteracy which might have occurred due to lack of a "literate environment" and inability to run post-literacy programmes, the literacy rate must have already declined from 62 per cent. A 20 per cent cut in this rate, a likely assumption, would reduce the literacy rate to less than 50 per cent. This would leave more than 50 per cent of the country's adults illiterate for years to come.

The country's ability to train and deploy instructors, to prepare, produce and disseminate post-literacy reading and instructional materials and its ability to address the language question are serious issues and challenges of the literacy and post-literacy programmes.

In light of the country's past economic performance and present situation, it is very unlikely that these issues would be resolved at least for some years to come. It appears, therefore, that in the short-term sustaining at least a 50 per cent literacy rate and resisting relapse into illiteracy can be considered a realistic target for HRD in Ethiopia.

The other issue related to literacy is its applicability or its being functional. The ability of reading, writing and numeracy cannot automatically lead to understanding of one's problems and create the ability to solve them and improve one's living conditions. The development of a "literate environment", which motivates and supports the use of these newly acquired literacy skills, is necessary.

In the context of Ethiopia's economy, this implies mainly the need for a comprehensive rural development policy. And the development strategy to be pursued should involve integrated and concerted actions by all parties concerned. Under such policy and strategy framework, post-literacy programmes can play an important role in enhancing the productivity level of the rural communities and improving their living conditions.

This approach of concerted action for rural development has not been adequately pursued in Ethiopia. If post-literacy programmes are run jointly by all concerned institutions, they will not only result in permanent literacy, but will also help in increasing the effectiveness of the activities. The literacy skills acquired by the rural communities can be put into use by the productive and service-rendering institutions: agriculture, industry, health, transport, etc. This is not, however, to undermine the consideration of literacy as a basic human right, with ethical and human dimensions, but it is to benefit at the same time from its contribution to socio-economic development.

B. Issues Related to Universalization of Primary Education

The major issues pertaining to primary education include its limited coverage (34 per cent), stagnation of enrolment, deterioration of quality, inequalities in access particularly between male and female and between urban and rural areas. The fact

that two-thirds of the primary school age children are out of school, the stagnation of enrolment and the increase in the demand for school places associated with population growth are serious issues which the country's HRD is facing.

The objective of universalizing primary education has long been recognized as the priority objective world-wide. It has been considered as one of the basic human rights, and every country is striving to provide universal primary education. Regional and international declarations have been passed for its earlier realization. Recently, in March 1990, the World Conference on Education for All, held in Jomtien, Thailand, has renewed this commitment in the following words:

- a) Every person -- child, youth and adult -- shall be able to benefit from educational opportunities designed to meet his basic learning needs.
- b) Basic education should be provided to all children, youth and adults. To this end, basic education services of quality should be expanded and consistent measures must be taken to reduce disparities.
- c) For basic education to be equitable, all children, youth and adults must be given the opportunity to achieve and maintain an acceptable level of learning.

These proclamations have touched on all the major issues: universalization, quality and equity objectives of basic education. As noted above, Ethiopia's position with regard to all these aspects has a lot to be desired. Both the ethical and the human right objectives and the established high economic and social return associated with investment at this level of education should justify a renewed commitment to the objective of achieving universal primary education.

In line with the Jomtien Declaration, Ethiopia's focus should not be confined to quantitative targets, but should extend to the quality and equity issues. An evaluation of the curriculum has to be carried out in order to define the content of the instructional materials required for current and future needs of learners. In order to ensure its positive return, special effort has to be made to increase the participation of women in education. This will contribute to the improvement of the health and welfare of children and to lowering of fertility rates, hence contributing to global societal objectives.

C. Issues Related to Secondary and Tertiary Level Education

As pointed out above, the quantitative aspects of secondary and tertiary education are not as important as their qualitative aspect. These levels of education are relatively expensive and characterized by high wastage rates. There are indirect measures suggesting their poor quality. The relevance of secondary and technical vocational education curricula to the country's agricultural and rural development needs, to the requirements of the informal and private sectors and self-employment has to be investigated. The need for provisions of well-trained teachers, minimum package of books and materials and equipments deserves attention.

Improvement in quality, which can be achieved among other measures by providing these necessary inputs, requires additional resources. Given the current and the short-term future prospects of the economy to provide these resources, the issues to be addressed here will have to be how to mobilize the required finance. Post-primary level education must be provided in co-operation or in partnership with the private sector. The financing of secondary and tertiary level education should not be left to the government; it has to be shared by the government, the private sector and the users. The government's role here must include providing the required incentive for private investment and regulation of the activities. Education at all levels are public goods, but some are "more public". Such is primary education with highest social benefits, and justifying full government full financing.

Greater participation of families and individuals wanting to go to secondary and third level education will have to be encouraged in order to ease the burden of the government to finance these educational levels. The use of non-formal systems of education, such as distance education programmes, should also be considered. The idea of using schools for giving students a strong base in mathematics and the sciences and the creation of industrial training centers for job-specific training has to be looked into. There are suggestions of adopting an integrated training system where flexible and readily adaptable skills are offered. This system of training has to be conducted both in the formal training institutions and on the job training.

IV. CONCLUSION

Taking educational development as its major indicator, the level of development of Ethiopia's human resources has been considered to be very low. The various fundamental problems and weaknesses of educational development -- its low coverage, its poor quality, inequitable distribution and the inefficiency of the system, all indicate to this low level of HRD in Ethiopia.

The issues of HRD are basically those issues which are related to the present and future challenges of the country's educational development. In light of the economic crisis of the country, these problems can only be solved through long-term sustained efforts. In this short paper, an attempt was made only to pinpoint some of the major issues which need to be extensively investigated.

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