

## ORIGINAL ARTICLE

### **Accessibility In equality to Basic Education in Amhara Region, Ethiopia.**

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#### **ABSTRACT**

*Accessibility to basic educational attainment has been identified as collateral for economic development in the 21<sup>st</sup> century. It has a fundamental role in moving Africa countries out of its present tragic state of underdevelopment. This article examines the situation of basic educational services in Amhara region of Ethiopia in terms of availability and accessibility at both primary and secondary levels. It revealed that there is a gross inadequacy in the provision of facilities and personnel to adequately prepare the youth for their future, in Amhara region. It also revealed the inequality of accessibility to basic education services among the eleven administrative zones in the region with antecedent impact on the development levels among the zones and the region at large. It thus called for serious intervention in the education sector of the region, if the goal of education for development is to be realized, not only in the region but in the country at large..*

**KEYWORDS:** *Accessibility, Basic Education, Development, Inequality, Amhara, Ethiopia*

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## INTRODUCTION

Accessibility to basic education has been identified as a major indicator of human capital formation of a country or region, which is an important determinant of its long-run rate of growth and as a measure of development (Hanmer et al, 1998). 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. Investment in education of citizens in all countries is associated with significant labour-market gains for the individuals in question, such as higher post-tax earnings, higher participation in the labour market and improved employment probability (OECD, 2001)

In most developing countries of the world education attainment is the shortest way to escape from poverty trap. However, getting access to a good quality education is far more difficult in sub-Sahara Africa where there is relatively small number of schools and very high students / teacher ratio. Access to education is one of the indexes of development and it determines human capital formation of a region. It is believed that a region with high human capital formation would be able to transform the natural resources in their region to goods and services that would lead to economic growth and social development.

An understanding of the condition of education services in a region in terms of availability and accessibility will afford both education planners and other stake holders in the society to be able to identify the existing lapses and to plan for the future; it will form the basis of providing solution to the identified problems. This article intends to fill the gap of inadequacy

of assessment of educational services provision at primary and secondary schools in Ethiopia, taking Amhara National Regional State as a case study.

The article is arranged into six sections. Following the introduction is the literature review focusing on education and regional development; then the study area, the methodology, result and discussion and finally the conclusion.

### **Education and Regional Development**

Development is human-centred; it is taking to mean structural transformation of the economy, society and culture of the people, permitting, self-actualization of human potentials. Development connotes, the enhancement of the quality of life of man and increasing people's life chances, their opportunities to get educated, to have food, shelter and clothing and also to have access to basic needs which include health, water, communication etc. to move not just a little way up the ladder of income distribution but to be able to make some significant jumps and most importantly to give their children greater opportunities (Uphoff, 2001).

Increased investment in people, through spending on social services, especially basic education is essential for the realization of the millennium development goal. Basic Education is the foundation for sustainable life-long individual development. It is aimed at equipping individuals with such knowledge, skills and attitudes that will enable them live meaningful and fulfilling lives; contribute to the development of the society and derive maximum social, economic and cultural benefits from the society; and discharge their civic obligations

competently. In addition to the benefits for gross national product growth, an educated, healthy population strengthens the capacity of society to manage problems and withstand external shocks. The multiple challenges of creating or maintaining economic growth while minimizing damage to the natural environment are too great to be managed by Governments alone. Empowerment of people, through greater political and economic independence and access to information, enables local communities, organizations and businesses to contribute to effective solutions (Nathan Glazer, 1993)

The World Bank (1990a) claims that the human capital formation determines a household's standard of living and that poverty reduction is associated with increased access to health and education services. Hence, a development goal that aims at improving the living standard of the people over a longer term should ensure that households could generally increase investment in human capital. By being able to continue to educate their children adequately and provide their health care needs, the value of a household's human resources increases and earning potentials rises, reducing its susceptibility to poverty in the future and better utilization of natural resources within their environment for development. A well-trained individual have the potential of contributing positively to the overall development of a region. Such individual can apply the acquired knowledge to add values and transform available natural resources to goods and services for regional development.

Education is basic to human capital development of every nation. It provides not only an initial earnings advantage but also a wage premium that increases with time spent in the labour market. An important motivation for investment in

education is that the acquired knowledge and skills tend to raise productivity, earnings potential and nation's economic growth rate and overall development. A further important motive behind acquiring more education is to lower the risk of unemployment. The reduction in risk is particularly large for higher education attainment and the gap in unemployment rates between secondary and university-educated workers is comparatively large. The difference in unemployment risk across educational categories is notably large for young persons, but it tends to narrow with age. Moreover, educated workers are more likely to participate in the labour market, and their active working life is generally longer than that for those with lower educational attainment. Thus, education attainment 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 and as well nation's economic growth and development (Hanmer et al,1998; OECD,2001).

However, there are two sides to human capital formation for regional development. On the demand side, is the willingness and ability to invest in human capital formation at individuals or household levels, this depends on their resources. The realization of this investment demand also depends on the supply side factors; households cannot educate their children if no school exist, or provide for their health care needs in the absence of clinics and other health services. Furthermore, the quality of education services will determine the level of human capital formation that actually occurs in a given region or community. For example, evidence from several sub-Saharan African countries show that many schools lack teachers, books and other essential facilities to train their children (Hanmer et

al 1998). It is argued that since man is the initiator and beneficiary of development, then human capital formation of region can be used as surrogate of development level and its variations among different regions illustrates level of regional inequalities. This can be measured in terms of both the distribution and accessibility to basic educational services within a region.

Ethiopia Education Statistics for 2004 shows that net enrolment rate at primary level (grade 1-8) was 57 percent of children of school-going age with variations across the nine regions, while Amhara region achieved only 53 percent, which is below the national average. The goal of universalization of primary education by 2015 in Ethiopia is geared towards increasing accessibility of children to basic education by expanding facilities and personnel in the education sector. However, at present there are substantial shortcomings in Ethiopia's institutional and personnel capacities for the delivery of a sound basic education for all citizens. There are also wide spread disparities both in quality and access across the nation. Available infrastructural facilities, teaching and learning materials as well as qualified teachers are grossly inadequate. For Ethiopia to attain the desired goal of universalization of basic education by 2015 it is imperative that provisions be made and actions taken to really expand facilities, personnel and enthrone a conducive learning environment and improve quality and standards.

The goals of the universal basic education (UBE) are to universalize access to basic education, engender good learning environment and eradicate illiteracy in Africa within the shortest possible time. The specific objectives of the scheme are to: develop in the entire citizenry a strong consciousness for education and a strong

commitment to its vigorous promotion; provide free, compulsory Universal Basic Education for every child of school age; reduce drastically, dropout rate from the formal school system through improved relevance and efficiency; cater for dropouts and out-of-school children/adolescent through various forms of complementary approaches to the provision and promotion of basic education; ensure the acquisition of the appropriate levels of literacy, numeracy, manipulative and life skills (as well as the ethical, moral and civic values) needed for laying the foundation for long-life learning (Denga, 2000). Successful implementation of UBE programme as conceived requires an understanding of the present situation of level of accessibility and availability of facilities in order to be able to plan for the required interventions. This article examines accessibility inequality of basic education services among the eleven administrative zones of Amhara region, Ethiopia using 2005 data.

#### **The Study Area**

Amhara National Regional State is one of the nine regions in Ethiopia; located in the Northwestern part of the country. It has a total land area of 161,828.40 squared kilometers, with a population of 17,266,383 as at 2005 (Amhara BFED, 2005). Amhara region is divided into eleven administrative zones; each is further divided into "Woreda" (administrative community). Amhara region is basically a rural region with 89 percent of its population in the rural areas while only 11 percent are urban dwellers. The region is quite homogeneous in terms of language (Amharic) and culture.

Education administration in Ethiopia is generally controlled by the ministry of Education at the federal level and education bureau at the regional levels. The system of education in Ethiopia generally is

structured into cycles. Primary education is divided into two cycles of which 1<sup>st</sup> cycle is grade 1-4 (four years) and 2<sup>nd</sup> cycle is grade 5-8 (four years). At the secondary level the 1<sup>st</sup> cycle is grade 9-10 (two years) and the 2<sup>nd</sup> cycle of secondary education is grade 11-12 (two years). This cycle (grade 11-12) is regarded as higher education preparatory school which was designed as preliminary stage of university education. Thus, grade 1-10 is considered the basic education minimum in Ethiopia, which can adequately prepare an individual for the future.

At primary and secondary levels the period of learning per day is on the average of 4 hours as most schools are run on a two shift system except for the very few private schools. The federal approved standard students/section ratio and students/teacher ratio at both primary and secondary level is 50 students per section and per teacher. This standard is higher than UNICEF standard of 40 students per section and per teacher by a deviation of -10 (negative). This is the general situation in Ethiopia with variations at regional levels. The situation in Amhara region was analyzed and the implication for regional development highlighted.

## **METHODOLOGY**

The data for this study were collected on the basis of the eleven administrative zones in Amhara region for 2005. The administrative zone is equivalent of Local Government Area in Nigeria. Data were collected from both primary and secondary sources as it relates to the study.

Secondary data were collected from Ethiopia Federal Education Statistics annual abstract and Amhara National Regional State, Annual Education statistics for 2005.

The variables were those that examine the spatial distribution of education facilities in Amhara region. These include: number of primary schools, number of secondary schools, and higher education preparatory schools. Others are primary school enrolments, secondary school enrolments, number of primary school teachers, number of secondary school teachers, and number of available classrooms (sections) at both primary and secondary levels in the region.

The analytical techniques used in this aspect are the calculation of student enrolment per 1000 population, students/teacher ratio for both primary and secondary schools and students/section ratio for both primary and secondary schools. The results were used as indexes of accessibility to primary and secondary education in the region.

## **RESULTS AND DISCUSSION**

This section reveals the spatial disparity of the distribution of educational facilities among the eleven administrative zones. It also shows the inequality of accessibility to educational services. All these have implication for the overall development pattern in the region. Table 1 illustrates the spatial distribution of various types of schools among the eleven zones in the region as at 2005.

**Table 1: Amhara Region Population and Distribution of Educational Facilities by Zone, 2005 (1997 E.C.)**

S/N	Zone	*Total Population	+Primary School Grade 1-8	+Secondary School Graade9-10	+Preparator y School Grade 11-12	+All Schools
1	West Gojjam	2369070	434	9	2	445
2	East Gojjam	2140904	504	12	3	519
3	North Gonder	2775155	666	18	3	687
4	South Gonder	2050539	412	10	3	425
5	South Wollo	2592397	572	16	3	591
6	North Wollo	1492694	384	8	2	394
7	North Shoa	1927799	586	13	3	602
8	Awi	929782	218	5	2	225
9	Waghimra	331102	100	1	1	102
10	Oromiya	510959	147	2	1	150
11	Bahir Dar	145982	33	3	1	37
12	Regional Total	17266383	4056	97	24	4177

Source + Annual Education Statistics 2005 (1997 E.C.), Amhara Regional State Education Bureau.

\*Development Indicators of Amhara Region 2005, Amhara Regional State Bureau of Finance and Economic development.

According to the Table there are 4056 primary schools (grade 1-8) in Amhara region as at 2005. The distribution of the primary schools revealed significant variations among the eleven administrative zones in the region. For instance, four zones have more than 500 grade 1-8 schools each. North Gonder has the highest with 666 schools, followed by North Shoa, South Wollo and East Gojjam, having 586, 572 and 504 primary schools respectively. West Gojjam and South Gonder have 434 and 412 primary schools, while North Wollo and Awi have 384 and 218 primary schools in that order. The remaining three zones –Oromiya, Waghimira and Bahir Dar have less than 150 schools, with Bahir Dar the regional capital having 33 primary schools as the least. Though, this disparity can be justified by the spatial distribution of the total population among the zones,

but the inadequacies of the schools are more revealing in the index of accessibility.

The distribution of secondary schools (grade 9-10) also revealed spatial disparity in the region. There are 97 secondary schools in Amhara region as at 2005. The distribution pattern is similar to what obtained for the primary schools as the zones with higher number of primary schools also have higher number of secondary schools. However, there is no zone having up to 20 secondary schools, the highest is found in North Gonder with 18 secondary schools and the least in Waghimira with only 1 school. Bahir Dar which had the least number of primary schools has 3 secondary schools.

The preponderance of primary schools in the region is reversed in the number of

secondary schools available. It also revealed a serious inadequacy, in that the number of secondary schools available is not enough to absorb the output of students from the primary schools. It portends that there is serious competition for admission into secondary schools and large proportion of students who completed primary school education lack access to secondary school. At the regional level the ratio of primary schools to secondary school is currently 42 primary schools to 1 secondary school, with variations at the zonal levels. Bahir Dar the regional capital have 11 primary schools to 1 secondary school which is far below the regional average and better accessibility. This can trigger rural-urban migration as students who completed primary school from other zones can easily migrate to Bahir Dar for their secondary education.

Given that not all students are expected to further their education beyond grade 10 as the minimum basic education; the current number of higher education preparatory schools run contrary to the present government policy on higher education. The federal government has recently

established more universities in the country to increase access to university education in Ethiopia. However, in Amhara region there are 24 higher education preparatory schools which is a prerequisite to regular university admission. This is quite inadequate for the number of students completing their grade 10, thus it put the students from Amhara region at disadvantage among the nine regions in Ethiopia. It shows a high level of inaccessibility to education.

One important observation about the distribution of the schools in Amhara region is that there is a wide gap between the numbers of schools available for different levels of education. There are 4177 schools of all types for both primary and secondary education in the region, grade 1-8 schools accounted for 97 percent (4056 schools) , grade 9-10 is just 2 percent (97schools) and grade 11-12 account for 1 percent (24 schools). This gap portends that a large proportion of students are denied or lack access to further their education beyond grade 8 on regular basis. This is revealed by the enrolment pattern as shown in Table 2.

**Table 2: Amhara Region Education Indicators by Zone, 2005 (1997 E.C.)**

S/N	Zone	Total Population	Total Enrolment Grade1-8	Total Enrolment Grade9-10	Total no of *sections available Grade1-8	Total no of sections available Grade 9-10	Total no of Teacher Grade1-8	Total no of Teacher Grade 9-10
1	West Gojjam	2369070	377658	19773	5478	205	5500	306
2	East Gojjam	2140904	374067	24817	5319	316	5668	408
3	North Gonder	2775155	407416	26176	5658	333	6205	443
4	South Gonder	2050539	306148	17350	4231	245	4191	313
5	South Wollo	2592397	443878	25446	6415	353	6791	491
6	North Wollo	1492694	221255	11792	3345	164	3121	199
7	North Shoa	1927799	337826	15830	5743	248	5714	309
8	Awi	929782	165196	10755	2877	175	2530	195
9	Waghimra	331102	35210	1599	612	24	648	33
10	Oromiya	510959	72502	1533	1275	26	1315	36
11	Bahir Dar	145982	37631	6207	631	88	731	104
12	Regional Total	17266383	2778787	161278	41584	2177	42414	2837

+ Annual Education Statistics 2005 (1997 E.C.) Amhara Regional State Education Bureau.

A measure of accessibility to education services was taken for primary grade 1-8 and secondary grade 9-10 across the eleven zones in the region. This was done by calculating the enrolments per 1000 population, students/ teacher ratio and students/ section ratio at both primary and secondary levels. These measurements further revealed the inequality of accessibility to education services among the eleven zones in Amhara region. Primary school (grade1-8) enrolments per 1000 population gave two distinct patterns. First were ten zones with between 100- 180 enrolments per 1000 population. In this group 4 zones have between 171-178

enrolments, another 5 zones have between 142-159 enrolments, while Waghimira zone have 106 enrolments per 1000 population been the least. The second is Bahir Dar with 258 enrolments per 1000 population as the highest. The regional average enrolment per 1000 population is 161. Six zones falls below the regional average (see Table 3). This index of accessibility also measure the level of awareness and willingness of parents to get their children enrolled for primary education in the region. This is clearly shown with what obtained between Bahir Dar and the rest of the region. Amhara is largely rural with 89percent population in

the country side and 11 percent urban. The higher the number of enrolments per 1000 population the better the awareness of the people on the importance of education. At the secondary level (grade 9-10) the pattern of enrolment per 1000 population is very poor. Two zones Waghimra and Oromiya has 3 and 5 enrolment per 1000 population respectively been the lowest. Other five zones have between 8 and 9 enrolment, another three have between 10 and 12 enrolment while Bahir Dar alone has 43 enrolment per 1000 population. The regional average of enrolment per 1000 population at secondary school was 9. This give an indication that large number of pupils are either dropout of school before the completion of grade 8 or are unable to further their education beyond grade 8 and thus not able to attain the minimum basic education (Table 3).

On students/teacher ratio and students /section ratio, the national standard in Ethiopia is 50 students per teacher and per section (class). This is above the UNICEF standard of 40 students per teacher per

section (class). Table 3 also revealed the students/teacher ratio and students/section ratio at both primary and secondary levels. Amhara regional average of students/teacher ratio and students/ section ratio at primary level was 66 and 67 respectively ware 67. That of secondary school was 57 and 74 for students/teacher and students/section ratio respectively. For instance at primary level, no zone meets neither the Ethiopia national standard nor the UNICEF standard on both students/teacher and students/section ratio. Five zones have higher than the regional average on the students/section ratio, the remaining six zones have below or equal to the regional average. Three zones (West Gojjam, South Gonder and North Wollo) have higher than the regional average on students/teacher ratio for grade 1-8 in the region. The secondary level situation is not so different from what obtained at the primary level. Regional average of students/teacher ratio is 57. Four zones have higher than the regional average and others between 43- 55 students per teacher (Table 3).

**Table 3: Index of Accessibility to Basic Education in Amhara Region by Zone, 2005 (1997 E.C.)**

S/N	Zone	Enrolment per 1000 Population Grade 1-8	Pupils /Section Ratio Grade1- 8	Pupils / Teacher Ratio Grade1- 8	Enrolment per 1000 Population Grade 9- 10	Pupils /Section Ratio Grade 9-10	Pupils / Teacher Ratio Grade 9-10
1	West Gojjam	159	69	69	8	97	65
2	East Gojjam	175	70	66	12	79	61
3	North Gonder	147	72	66	9	79	59
4	South Gonder	149	72	73	9	71	55
5	South Wollo	171	69	65	10	72	52
6	North Wollo	148	66	71	8	72	59
7	North Shoa	175	59	59	8	64	51
8	Awii	178	57	65	12	62	55
9	Waghimra	106	58	54	5	67	49
10	Oromiya	142	57	55	3	59	43
11	Bahir Dar	258	60	52	43	71	60
12	Regional Average	161	67	66	9	74	57

*Source: Authors Calculations from the Secondary Data*

On the whole, Amhara region have students/ teacher ratio and students/section ratio higher than the Ethiopia national standard and far higher than that of UNICEF with variations among the eleven zones in the region. The variation among the zones revealed a serious deviation from both the Ethiopia national standard by a range of -7 to -22 and UNICEF standard by a range of -17 to -32. Using the two standards, this negative deviation is a serious indication of inaccessibility revealed by inadequate sections (class rooms) and adequate teachers at both primary and secondary levels.

At another level the shortfall of teachers and sections (class rooms) was calculated using the UNICEF standard of 40 students per teacher and per class (section) for both primary and secondary schools. The result in Table 4 and 5 revealed the required, available and shortfalls on both teachers and sections by each zone and regional total. These were also illustrated in Figures 1-4. This aspect is to provide at a glance the inadequacy of both infrastructure and personnel for the effective delivery of basic education in the region.

**Table 4: Shortfall of Accessibility to Primary Education (Grade1-8) in Amhara Region by Zone, 2005 (1997 E.C.)**

S/N	Zone	*Required sections Grade1-8	+Available sections Grade 1-8	Shortfall of Sections Grade 1-8	*Required Teachers Grade 1-8	+Available Teachers Grade1-8	Shortfall of Teachers Grade 1-8
1	West Gojjam	9442	5478	3964	9442	5500	3942
2	East Gojjam	9352	5319	4033	9352	5668	3684
3	North Gonder	10186	5658	4528	10186	6205	3981
4	South Gonder	7654	4231	3423	7654	4191	3463
5	South Wollo	11097	6415	4682	11097	6791	4306
6	North Wollo	5532	3345	2187	5532	3121	2411
7	North Shoa	8446	5743	2703	8446	5714	2732
8	Awi	4130	2877	1253	4130	2530	1600
9	Waghimra	880	612	268	880	648	232
10	Oromiya	1813	1275	538	1813	1315	498
11	Bahir Dar	941	631	310	941	731	210
12	Regional Total	69473	41584	27889	69473	42414	27059

Source: \* Required Sections (Class rooms) and Teachers were calculated based on the UNICEF standard of 40 Pupils per Class and per Teacher.  
 + Annual Education Statistics 2005 (1997 E.C.) Amhara Regional Education Bureau.

**Table 5: Shortfall of Accessibility to Secondary Education (Grade 9-10) in Amhara Region by Zone, 2005 (1997 E.C.)**

S/N	Zone	*Required sections Grade 9-10	Available sections Grade 9-10	Shortfall of Sections Grade 9-10	*Required Teachers Grade 9-10	Available Teachers Grade 9-10	Shortfall of Teachers Grade 9-10
1	West Gojjam	494	205	289	494	306	188
2	East Gojjam	621	316	305	621	408	213
3	North Gonder	655	333	322	655	443	212
4	South Gonder	434	245	189	434	313	121
5	South Wollo	636	353	283	636	491	145
6	North Wollo	295	164	131	295	199	96
7	North Shoa	396	248	148	396	309	87
8	Awi	269	175	94	269	195	74
9	Waghimra	40	24	16	40	33	7
10	Oromiya	39	26	13	39	36	3
11	Bahir Dar	156	88	68	156	104	52
12	Regional Total	4035	2177	1858	4035	2837	1198

Source : \* Required Sections (Class rooms) and Teachers are calculated based on the UNICEF standard of 40 Pupils per Class and per Teacher.  
+ Annual Education Statistics 2005 (1997 E.C.) Amhara Regional Education Bureau.

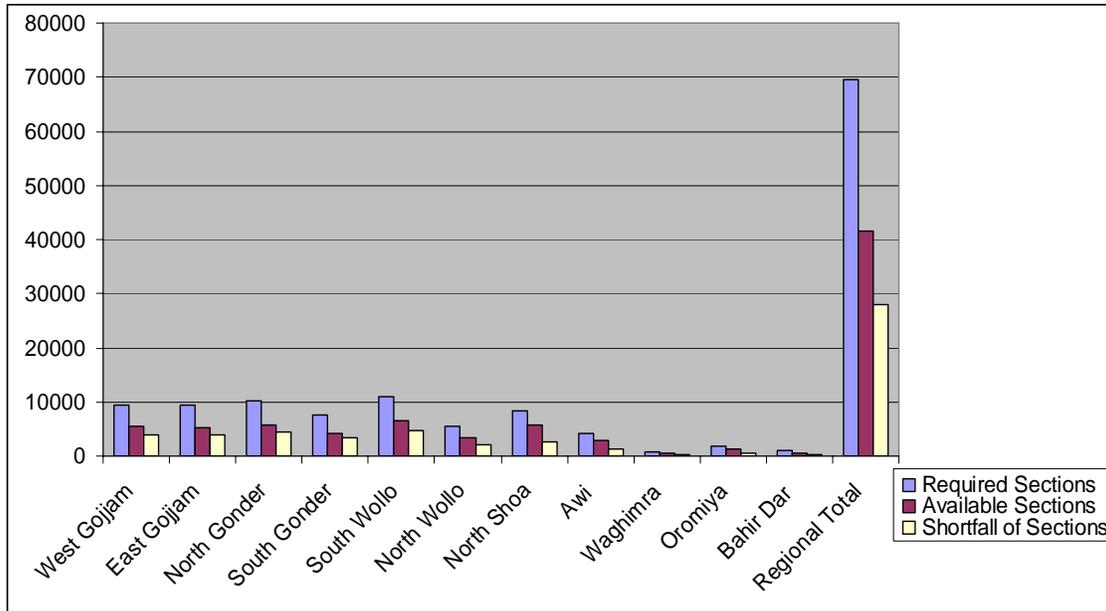


Figure 1: Shortfall of Sections in Primary Education, Amhara Region by zone 2005 (1997 E.C.)

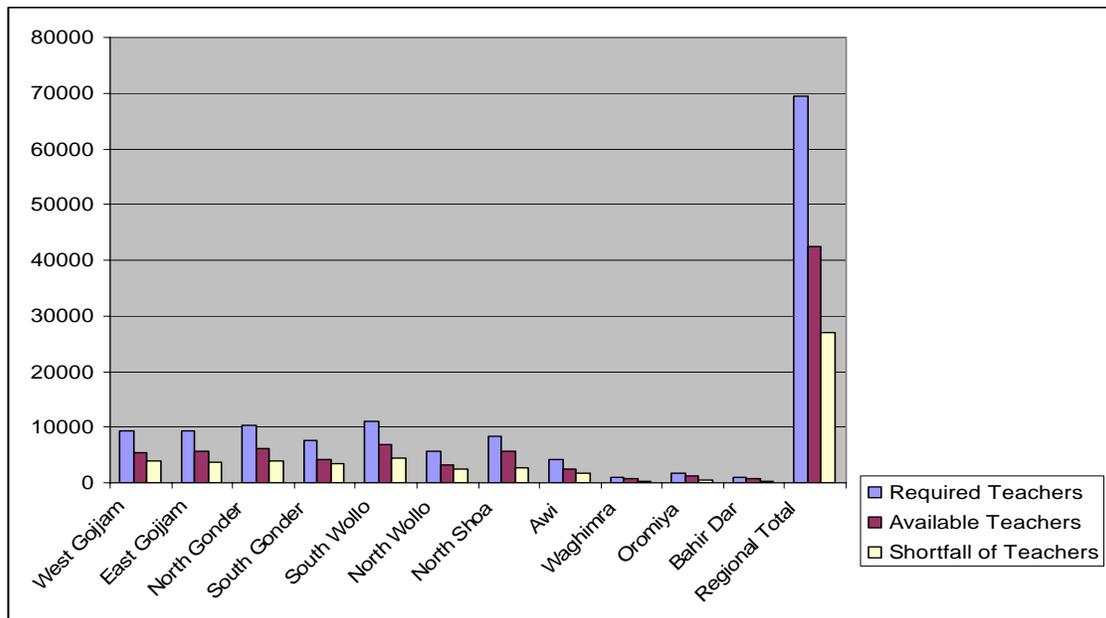


Figure 2: Shortfall of Teachers in Primary Education, Amhara Region by zone 2005 (1997 E.C.)

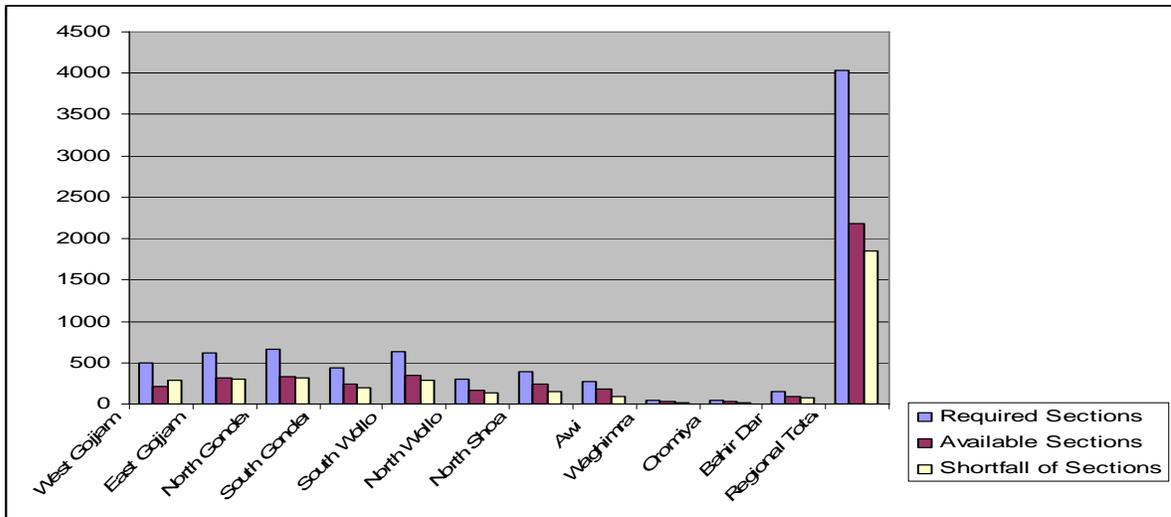


Figure 3: Shortfall of Sections in Secondary Education, Amhara Region by zone 2005 (1997 E.C.)

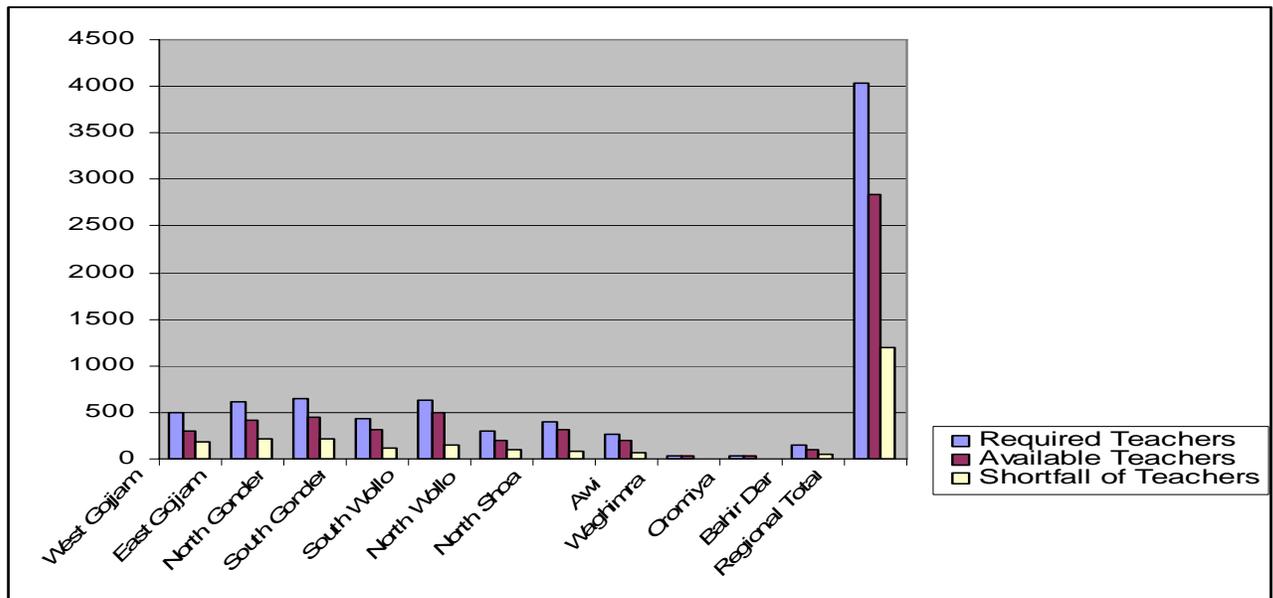


Figure 4: Shortfall of Teachers in Secondary Education, Amhara Region by zone 2005 (1997 E.C.)

There is no doubt that inadequate infrastructures and personnel will impact seriously on the standard of basic education

delivery in Amhara region. This is a pointer to what might likely obtain in other regions of Ethiopia.

### Conclusion

Education has become the key ingredient in the 21st century recipe for growing the economic pie. Human capital in the form of basic educational attainment is the collateral for economic development. It has a fundamental role in moving sub-Saharan Africa out of its present tragic state of underdevelopment. However the findings of this article revealed that there is a gross inadequacy in the provision of basic education services in Amhara Regional State of Ethiopia, in terms of available facilities and personnel to adequately prepared the youth for their future. It also revealed the inequality of accessibility to basic education services among the eleven zones in the region with antecedent impact on the development levels among the zones.

There is urgent need for intervention in the education sector of the region and others in Ethiopia if the goal of education for development is to be realized. The intervention that is required should address the problems of inadequate facilities especially classrooms and other ancillary education facilities. There is need for construction of more schools to reduce over crowding in classes. Also students/ teacher ratio has indicated that teachers are not enough to really impact knowledge on the children at both primary and secondary levels, thus more teachers needs to be employed to the level of maintaining the standard level of students/teacher ratio. The teachers as well must be motivated adequately so as to make them committed to their profession.

The aforementioned reforms must be such that will bring equity among all the zones in the region to reduce the existing inequality of accessibility to education services as educational equity pays for itself in increased wealth for all and

education system in Ethiopia must do more than produce foot soldiers for the economy.

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