Multipurpose Development of the Eastern Nile, One–System Inventory report on Socio-economic Characteristics of EN Basin
ETHIOPIA

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I. Socio-Economic Regulatory Institutional Setting

1.1 Customarily and Statutory Laws, Institutions and Organizations Governing Access to Utilizations of Natural Resources in the Abbay River Basin

In the context of the Ethiopian socio-economic systems, customary rules and formal legal laws have been the two main competing, and even conflicting institutions, regulating the form and nature of access to and use rights on land and other natural resources. Thus, the 'authority' and 'legitimacy' of both the 'formal' and 'informal' institutions and the role they used to play in natural resource management has always been an important issue in Ethiopian tenure systems (Tarekegn Yibabie, 2001).

Many research studies (Hoben, 2001; Teferi, 1994, Yared, 1995) have revealed that the existing mode of access to land, use and management of natural resources, in Abbay basine area has been characterized by inter-institutional conflict involving change, continuity, and contradiction in the tenure system. In other words, the socio-economic regulatory setting of the basin communities is defined by the dynamic interaction between the indigenous and formal legal tenure systems (Aklilu and Tadesse, 2001; Teferi, 1994). This institutional duality is thus important to understand the complex and dynamic nature of the land tenure systems in Ethiopia in general, and in the basin area in particular. Because, as Hoben (2001) indicated, especially since the 1974 revolution the 'laws and administrative procedures through which rural communities get access to farm land, pasture, and other natural resources 'have under gone radical changes'.

On the other hand, despite successive changes introduced by the three regimes (Imperial, the Derg, EPRDF), "there remained marked continuities in the way farming households use land, think about land, and obtain access to land" (Ibid). However, customary rules and institutions have been adaptively changing in response to changing political, social and economic conditions.

This review study pays due attention to a repertoire of data on land tenure systems, produced by many local and expatriate researchers and/or through research projects and workshops

sponsored/organized by academic institutions and NGOs. Especially, very importance research data was made available through the workshops on "Land Tenure and Land Policy in Ethiopia after the Derg"; and "Natural Resource Management in Ethiopia" organized by the Institute of Development Research (1994) and Forum for Social Studies (2001), respectively.

As a result, the current land tenure systems were studied from a range of different perspectives including: tenure policy issues (Dessalegn, 1994; Gizaw, 1994); problems of access to land (Yohannes, 1994; Aklilu and Tadesse, 1994; Eandra, 1994); Land and resource management (Teferi, 1994; Mirgissa, 1994; Berhe); Tenure issues in different agro-ecology (Svein, 1994; Judith, 1994; Tessema, 1994); Land and investment (Sarah and Gemechu, 1994; Gizachew, 1994); Land and resettlement (Meheret, 1994).

On the other hand, tenure systems studied in relation to use rights on and management of local natural resources were examined in a workshop organized by the FSS involving multi-disciplinary researchers (Yeraswork, 2001; Elizabeth, 2001; Tarekegn, 2001; Alula, 2001). These studies revealed that state ownership rights on land and recurrent redistribution of land have induced tenure insecurity, which in turn encouraged abuse of communal natural resources.

As far as access to and use rights on communal property resources in the basin are concerned, both "enclosing" and "individualizing" of the "commons" has been practiced in Amhara region (Tarekegn, 2001). The later was carried out by the regional state in order to provide land to the landless and the newly formed households, whereas the former was mainly adopted by NGOs to promote user-based enclosure and management of communal areas as a means of environmental rehabilitation (Alula, 2001).

Available data indicate that the main property rights regimes maintained among the basin peasant communities are private possession of land (allocated use rights) and common property rights (Mirgassa, 1994; Yeraswork, 2001). However, ownership rights on land and other natural resources remained in the hands of regional states who are entitled to govern access.

On the contrary, among the communities of Benshangul-Gumuz communal ownership is the dominant form of property rights on land and other natural resources. All resources belong to 'the collective with in the clan boundary' as the clan is believed to be the real owner of the land, whereas usufruct right is 'accorded to the individual as member of the clan' (Dessalegn, 1988). In this part of the basin, customary rules, rather than formal institutions, are the governing principles of access to and use rights on natural resources. In other words, the legal laws/formal institutions have had little or no influence on the indigenous land tenure systems as "no land distribution was carried out in these communities since there was neither landlord nor landless among the people" (Ibid).

The multi disciplinary research findings, in general, revealed that in the context of Amhara and Oromia part of the Basin, the formal institutions have failed to provide access to land for the landless, particularly to those newly formed households, as redistribution of land was legally terminated. To fill in such gap, the local communities have been increasingly adopting indigenous coping strategies to access land. Farming households used to enter into customary arrangements and gets access to land mainly through mortgaging, sharecropping, contract and inheritance (Tefere, 1994; Yared, 1995; Dessalegn). It was also revealed that the state ownership rights on land have induced a great deal of tenure insecurity which in turn led to the mismanagement of natural resources and abuse of common property resources (Yeraswork 20001, Mirgissa 1994, Dessalegn2003, Hoben, 2001).

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The paper generally talks about the way independent household can be established to main principle involved in access to land and the effect of it has on local social organization and the reason.

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1.2. Institutions and Organizations Operating in the Abbay River Basin

I. Government Institutions

a. **All existing federal ministries** are believed to be relevant to multi-sectoral development plan in the basin. Each government institution, in one way or another, involves in the regulatory activities, provision of technical assistance and advisory services to the regional bureaus and private sectors engaged in any activity located in the Basin.

b. **Regional Bureaus, Zonal and Wereda Offices** are also key participants in the implementation of development projects and/or programs in the Basin.

c. **Academic and Research Institutions**: Universities of Jimma, Gondar, Bahir Dar, and Ambo agricultural College and Agricultural Research Centers such as Adet are some of the most important and actively participating institutions with in the basin area. They provide consultancy, training, and multi-disciplinary research services as partners in most of the development projects in the area.

II. Religious Institutions

Available evidences show that The Ethiopian Orthodox Church (EOC) and the Ethiopian Mekane Yesus Evangelical Church (EMYEC) have been actively involved in the relief and development activities being carried out in the basin and beyond. They are potential stake-holders in terms of relief work, development intervention and promotion of community participation in development activities. Other religious institutions existing in the Basin are also active participants in development activities though their role is minimal due to having little number of followers.

III. Ethnic-Based Organizations

The Amhara Development Association (ADA), Amhara Relief Organization (ARO) and ASCA have been working in the Amhara region while the Oromo Development Association (ODA), Oromo Relief Organization (ORO) and OSCA are active in promoting development and relief activities in the Oromia region. Their roles as potential partners in multi-sectoral development projects to be undertaken in their respective regions are quite high and well recognized by residents of the area.

IV. Community-based Organizations

In the context of Ethiopia, grass root indigenous organizations are very important in the mobilization of self-initiated collective action. Idir/kire, Iqub and Meheber are the most commonly used community organizations among the Oromos and Amharas population living in the basin area. Effective grass root level participation is possible through such community-based organizations as they are key role players in collective action mobilization. Farmers' cooperatives are also important organization to be considered while promoting any development-oriented projects

.

V. NGOs

A study report produced by the CRDA in 1997 indicated that the majority of the registered NGOs investment had gone to the Amhara Region. According to this source, there were 43 NGOs working in Amhara Region in 1994. It was also indicated in the Abbay Basin Master Plan document that about 40 known NGOs and 10 – 15 "unknown" NGOs have also been recognized to engage in different activities in 93 weredas of the basin area. As huge numbers of international and local NGOs have intervention experiences in the Basin, they can be mobilized as partners in development efforts.

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Getahun Hailemariam (1998). Prototype Community Health Information Retrieval System for Jimma Zone: A Case Study of Jimma Institute of Community Health. MA in Information Science, AAU. .

The study analysis the existing system and propose the design and development of appropriate commuter base information system.

Mulualem Bassie (2001). Institutional and Administrative Capacity for Development: The Case of Benishangul Gumz National Regional State Efforts, Problems and Prospects. MA Thesis in Regional and Local Development Studies, AAU. .

The study focused on achievement and performance of the region.

II. SOCIO-ECONOMIC PROFILE

2.1 Basic Demographic Profile of the Abbay River Basin

a. Population Size and Structure:

The Abbay River Basin is located in the Benishangul Gumuz, Oromia and Amahra Regional States of Ethiopia (see Map I). It comprises the major part of the Beshihangul Gumaz and Amahra Regional States and some portion of the Oromia Regioanal State (MoWR, 1998). According to the 1994 Population and Housing Census of Ethiopia, the Basin had an estimated population of 22.6 million that could be projected to 26.8 million in 2000 and 30.7 million in 2005 (Table1 and 2). This shows that the estimated population of the Basin had increased by 35% during the ten years preceding the most recent census. Inter-censual annual population growth rate in the Basin area (i.e. 1984-1994) ranges between 1.0% in South Wello to 10.6% in Assosa Administrative Zones. The two administrative zones respectively represent the most sending and receiving drought affected population during the Derg's Resettlement Program in 1980s (see Desalegn, 1994).

Table 1: Distribution of Population Size by Sex and Place of Residence, and Dependency Ratio in Abbay River Basin: 1994

Location	Rural			Urban			Urban and Rural			Overall sex Ratio	Dependency Ratio	
	Male	Female	Total	Male	Female	Total	Male	Female	Total		Youth	Old age
Ben-Gumuz	**215075**	**209357**	**424,432**	**17938**	**18089**	**36027**	**233013**	**227446**	**460459**	**102.4**	**87.3**	**5.6**
Metekel	90,908	90006	181914	9226	10381	19607	101134	100387	201521	100.7	87.5	5.8
Assosa	97,305	94430	191735	8712	7708	16420	106017	102138	208155	103.8	91.7	9.5
Kamashi	25,862	24921	50783	-	-	-	25862	24921	50783	103.8	81.9	5.2
Oromia	**8418233**	**8345070**	**16763303**	**953435**	**1016653**	**1970088**	**9371228**	**9361297**	**18732525**	**100.1**	**93.1**	**6.9**
West Shewa	1047112	1056594	2103706	106073	119920	225993	1153185	1176514	2329699	98.0	93.5	8.7
North Shewa	537266	534423	1071689	39624	46665	86289	576890	581088	1157978	99.3	91.5	9.1
West Wellega	701278	713272	1414550	65183	67342	132525	766461	780614	1547075	98.2	84.8	8.10
E. Wellega	550395	564301	1114696	66170	72566	138736	616565	636867	1253432	96.8	89.6	6.5
Illubabor	377620	389138	766758	38836	41454	80290	416456	430592	847048	96.7	87.8	9.2
Jimma	885778	885089	1770867	93930	96465	190395	979708	981554	1961262	99.8	84.0	5.9
Amhara	**6370354**	**61198628**	**12568982**	**577192**	**688123**	**1265315**	**6947546**	**6886751**	**13834297**	**100.9**	**84.8**	**7.5**
N. Gonder	953929	898130	1852059	105769	130856	236625	1059698	1028986	2088684	103.0	89.8	5.5
S. Gonder	852582	799448	1652030	52214	64488	116702	904796	863936	1768732	104.7	81.9	6.4
N. Wello	592621	578641	1171262	41081	47974	89055	633702	626615	1260317	101.1	75.2	9.6
S. Wello	949838	963198	1913036	97674	113093	210767	1047512	1076291	2123803	97.3	78.3	10.6
Agew	327827	324026	651853	29411	35821	65232	357238	359847	717085	99.3	97.4	5.5
E. Gojjam	780493	774543	1555036	65487	79808	145295	845980	854351	1700331	99.0	91.7	6.5
W. Gojjam	849449	823036	1672485	47766	59472	107238	897215	882508	1779723	101.7	96.8	5.3
Bahir Dar	-	-	-	45436	50704	96140	45436	50704	96140	89.6	59.3	2.8
N. Shewa	716016	697948	1413964	68191	78761	146952	784207	776709	1560916	101.0	80.3	9.5
Estimated Basin Population*	10,336,279	10211144	20548423	980783	1123478	2104261	11318062	11334622	22652684	99.8		

***Estimated Basin Population refers to population in the zones located in the Basin area.**

Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

The medium term projected annual population growth rate based on the 1994 Population and Housing Census of Ethiopia showed that there is a slight decline in the rate of population growth until 2015. For instance, annual population growth rate is anticipated to decline from 3% in Oromia during 1995-2000 to 2.2% in 2010-2015. This, however, depends on how successful each of the regions are in implementing the National Population Policy of Ethiopia that aimed at reducing fertility from 7.7 children per woman in 1993 to 4.0 children in 2015, and increasing contraceptive prevalence rate from 4.4% to 44% during same period (NOP, 1993).

b. Sex Ratio:

The overall sex ratio of the Basin population is about a unity (i.e. 100 males per 100 females), with a slight variation in some of the administrative zones such as South Gonder (104.7 males per 100 males) and Illubabor Administrative Zones (96.7 males per 100 females) (Table 1). The observed variation in sex ratio by administrative zones could be due to sex differentials in mortality and/or migration into and out of the area.

c. Dependency Ratio:

As shown in Table 1, most of the population in the Abbay River Basin is in the younger age group. Child dependency ratio, which is expressed as number of population under the age of 14 to those in the working age group (15 -64) is around 85, though the ratio for some of the administrative zones is lower. Child dependency ratio is the highest (93.1) in Oromia Regional State, probably due to the effect of fertility rate in the region. Old age dependency ratio, on the other hand, is the lowest: around 7 persons per 100 persons in the working age group (15 – 64 years).

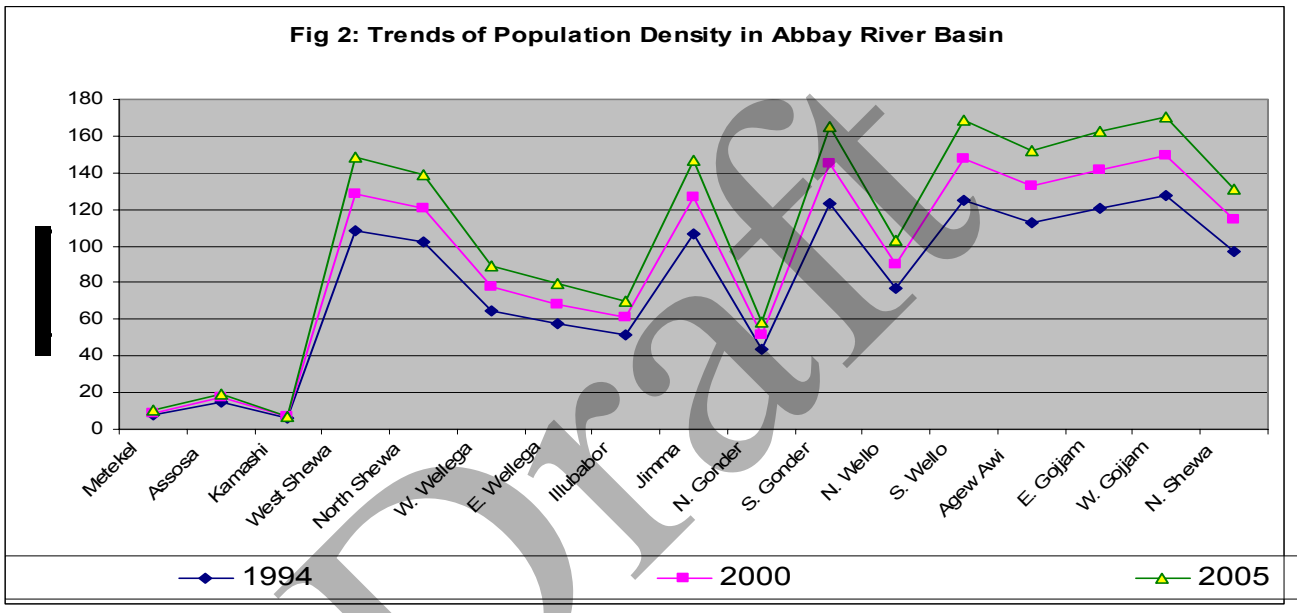
d. Place of Residence:

The majority of the population in Abbay river Basin is rural residents. Only about 10% of the estimated population for the Basin lives in urban areas (Table 1). Available information depicts that the overwhelming majority are living in places where access to infrastructure is very limited. No significant variation is also observed in the pattern of residence by administrative zones located in the Basin.

e. Population Density:

There is uneven distribution of population within the Abbay River Basin. Crude population density, which is defined as the total number of population per KM^2, ranges between 7.3 persons per KM^2 in

Kamshi Administrative Zone of the Benishangul Gumuz Regional State to 127.4 persons per KM^2 in West Gojjam Administrative Zone, Amhara Regional State in 1994 (Fig 1). Even though there is a constant increase in the number of population per KM^2 in all administrative zones located in the Basin over time, there is a considerable variation in terms of population pressure across regions and administrative zones. The pressure is extremely low in Benishangul Gumuz while it is the highest in Amahara Regional State with the exception of some zones like North Gonder and North Wollo. Population-land ratio is, however, modest in most of the administrative zones of the Oromia Regional State located in the Basin.



Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

f. Mortality:

Despite showing a slight decrease between 1994 and 2000, infant and child mortality is still the highest in all regional states and administrative zones located in the Basin. Comparative analysis of data from the 1994 Population and Housing Census as well as the 2000 DHS revealed that the chances of infant and child survival are the worst in Benshangul Gumuz Regional State though it is relatively better among those residing in the Amahara Regional State (Table 2). Same trend is also observed in the average number of years that a newly born child is expected to live across regions indicating that the quality of life is extremely low among residents of the Basin. Average life expectancy at birth ranges between 46.0 and 49.6 years for males but 46.5 and 50.8 for females.

Table 2: Infant and Child Mortality Rates as well as Life Expectancy in Abbay River Basin, 1994-2000

Location	IMR		Under five Mortality		Life Expectancy (1994)		
	1994	2000	1994	2000	Male	Female	Both
Ben Gumuz	**140**	**97.6**	**209**	**197.7**	**46.0**	**47.0**	**46.5**
Metekel	143		212		45.1	47.2	46.1
Assosa	143		213		46.1	46.0	46.1
Kamashi	123		181		49.1	50.0	49.6
Oromia	**118**	**116.2**	**173**	**193.8**	**49.2**	**51.7**	**50.4**
West Shewa	111		161		50.0	53.9	51.9
North Shewa	106		154		50.9	54.6	52.7
West Wellega	119		175		48.9	54.7	50.3
East Wellega	108		157		505	54.3	52.3
Illubabor	120		176		48.3	52.1	50.2
Jimma	147		219		43.8	47.2	45.5
Amhara	**116**	**112.4**	**170**	**183.4**	**49.6**	**52.2**	**50.8**
N. Gonder	105		153		51.8	54.1	52.8
S. Gonder	114		167		50.2	52.2	51.2
N. Wello	113		165		50.1	52.8	51.5
S. Wello	128		189		46.9	50.5	48.6
Agew	106		154		51.6	52.9	52.7
E. Gojjam	142		211		45.1	47.6	46.3
W. Gojjam	111		161		50.7	53.1	51.8
Bahir Dar	85		120		54.6	60.0	57.0
North Shewa	101		145		52.4	55.5	53.8

Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report
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g. Ethnic and Religious Composition:

As Ethiopia is following an ethnic based federation system, regional states located within the river basin is a reflection of ethnic composition of the population residing over there. Major ethnic groups located in the river basin are Amhara (in all but one administrative zone of the Amhara Regional State), Oromo (in all Administrative Zones of Oromia Regional state), Jebalawi (in Assosa) and Gumuz (in Kamashi and Metekel) Administrative Zones of the Benishangul Gumuz Regional State. In addition, those who belong to the Agew/Awingi ethnic group are also dominant in Agew Administrative Zone of the Amhara Regional State. (For details see Map I).

Table 3: Percentage Distribution of Population by Ethnic Groups in Abbay River Basin, 1994

Location	Amhara	Oromo	Agew/ Awingi	Tigraway	Gumuz	Jeblawi	Shinasha	Others
Ben-Gumuz	**22.2**	**12.8**	**3.8**	**0.9**	**23.4**	**25.1**	**7.0**	**4.8**
Metekel	**23.8**	13.4	8.5	0.4	**33.2**	0.2	**15.9**	4.6
Assosa	**26.0**	11.0	0.2	1.5	0.6	**54.3**	0.0	6.4
Kamashi	0.2	17.5	0.0	0.1	**77.6**	4.4	0.0	0.2
Oromia	**9.1**	**85.0**	**0.0**	**0.4**	**0.0**	0.0	0.0	**4.1**
West Shewa	6.7	**89.8**	0.0	0.2	0.0	0.0	0.0	0.5
North Shewa	19.8	**79.5**	0.0	0.1	0.0	0.0	0.0	0.5
W. Wellega	2.4	**96.1**	0.0	0.1	0.0	0.1	0.0	1.1
E. Wellega	10.5	**88.5**	0.0	0.6	0.0	0.0	0.0	0.1
Illubabor	7.3	**88.9**	0.0	1.3	0.0	0.0	0.0	1.8
Jimma	5.0	**81.6**	0.0	0.6	0.0	0.0	0.0	11.1
Amhara	**91.2**	**3.0**	**2.7**	**0.3**	**0.1**	0.0	0.0	**0.2**
N. Gonder	**89.7**	0.1	0.6	0.9	0.2	0.0	0.0	0.1
S. Gonder	**99.9**	0.0	0.0	0.0	0.0	0.0	0.0	0.1
N. Wello	**99.6**	0.0	0.0	0.3	0.0	0.0	0.0	0.1
S. Wello	**97.7**	1.8	0.0	0.4	0.0	0.0	0.0	0.0
Agew	**48.6**	0.2	50.0	0.0	1.0	0.0	0.0	0.2
E. Gojjam	**99.8**	0.1	0.0	0.1	0.0	0.0	0.0	0.0
W. Gojjam	**99.4**	0.3	0.1	0.0	0.1	0.0	0.0	0.1
Bahir Dar	**93.2**	0.7	0.7	4.0	0.0	0.0	0.0	0.8
N. Shewa	**93.7**	4.3	0.0	0.1	0.0	0.0	0.0	0.1

Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

Even though the majority of the population residing in the Abbay River Basin is followers of the Ethiopian Orthodox Church, there are also followers of the Islamic religion, Protestant Church and tradition beliefs (Table 4) Most of the Ethiopian Orthodox Church followers are residing in Amhara Region and some of the administrative zones of the Oromia Region that are located in neighborhood of the Amhara Region. A greater proportion of the Muslims are residing in Jimma Administrative Zone of Oromia, South Wello Administrative Zone of Amhara and Assosa Administrative Zone located in Benishangul Gumuz Region. Similarly, followers of the Protestant religion are residing in West and East Wellega Administrative Zones of Oromia Region, and the Kamashi Adminisnttrative Zone of Benishangul Gumuz Region. Those who believe in tradition, on the other hand, reside in Kemashi and Metekel Administrative Zones of the Benishangul Gumuz Region and East Wellega of Oromia Region. Followers of the Catholic religion, however, are very few among residents of the Basin.

Table 4: Percentage Distribution of Population by Religious Groups in Abbay River Basin, 1994

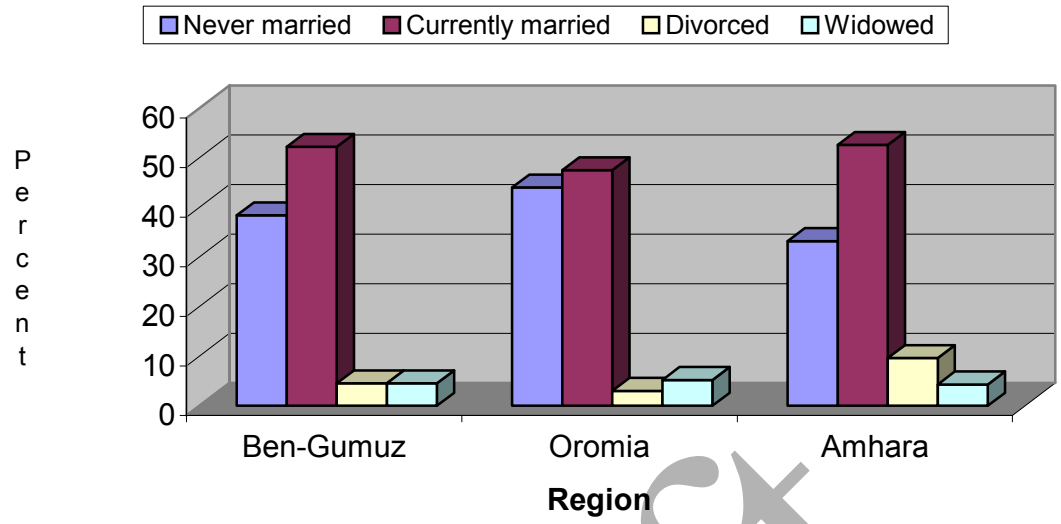
Location	Religious Group					
	Orthodox	Protestant	Catholic	Muslim	Traditional	Others*
Ben-Gumuz	**34.8**	**5.8**	**0.6**	**44.1**	**13.1**	**1.5**
Metekel	53.5	3.8	0.6	18.7	21.3	2.2
Assosa	18.7	2.7	0.2	78.0	0.0	0.2
Kamashi	26.2	27.0	1.7	5.8	34.6	4.2
Oromia	**41.3**	**8.6**	**0.6**	**44.3**	**4.2**	**1.0**
West Shewa	80.6	6.6	0.2	5.3	7.0	0.2
North Shewa	94.0	0.6	0.0	5.0	0.2	0.1
West Wellega	44.0	37.3	1.1	16.9	0.4	0.2
East Wellega	61.7	16.4	0.9	8.3	12.4	0.1
Illubabor	45.8	9.8	0.3	42.6	1.3	0.1
Jimma	15.8	1.5	0.1	82.4	0.1	0.1
Amhara	**81.2**	**0.1**	**0.0**	**18.6**	**0.1**	**0.0**
N. Gonder	95.3	0.0	0.0	4.5	0.0	0.0
S. Gonder	95.5	0.1	0.0	4.4	0.0	0.0
N. Wello	83.4	0.0	0.0	16.6	0.0	0.0
S. Wello	29.5	0.1	0.0	70.3	0.0	0.0
Agew	93.5	0.1	0.0	5.4	0.0	0.8
E. Gojjam	96.7	0.1	0.0	3.2	0.0	0.0
W. Gojjam	98.3	0.1	0.0	1.6	0.0	0.0
Bahir Dar	87.5	0.8	0.1	11.5	0.0	0.0
North Shewa	94.5	0.2	0.0	5.3	0.0	0.0

Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

h. Marital Status:

According to the 1994 Population and Housing Census of Ethiopia, the majority of the population aged 10 years and above is living in marital union. There is, however, slight variation in the proportion of never married across regional states. Probably due to the custom of early marriage among the Amharas, proportion never married among those residing in Amhara Region is lower (33.0%), followed by those residing in Benishangul Gumuz (38.4%) and Oromia Region (44.0%). Similarly, divorce rate is the highest in the Amhara Region (9.6%) as compared to those residing in Benishangul Gumuz (4.5%) and Oromia Regions (3.0%). This shows that there is a significant cultural effect in forming a family and maintaining its stability among population residing in the River Basin.

Fig 2 : Distribution of Marital Status in Abbay Rever Basin by Regions: 1994



Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

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Population Size, Age and Sex Structure and Place of Residence

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gojjam Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wello Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wellega Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Keffa Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

These reports contain population size and distribution by age and sex at regional levels classified by rural and urban place of residence for the year 1984. Total Population of urban rural areas of Awrajas, weredas and kebele or Peasant Associations (PAs) are also provided in the report. The reports, moreover, indicate actual and projected distribution of population size by age, sex and place of residence. These reports also contain sex ratios by five year age groups for urban and rural areas at regional level for the year 1984. Sex ratios for different religions groups are also given.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part I. Statistical Report, Central Statistical Authority: Addis Ababa, pp 13-26.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa, pp 11-16.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain population size and distribution by age and sex at regional, zonal, wereda and kebelel levels classifies by rural and urban place of residence for the year 1994. The reports indicate actual and projected population size on the basis of the census enumeration. These reports also contain sex ratios by five year age groups and place of residence at regional level for the year 1999.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain population size and percentage distribution by age and sex at regional and zonal levels classifies by rural and urban place of residence for the year 1994. The reports also provide projected population size for each of the years during 1995 to 2030 for total population classified by sex and place of residence. Projected population by five year age group is also provided for 1995 to 2000 every year, but every five years then after.

CSO (1976 to 1984**)** and CSA (1985 to 2004). Statistical Abstract - Ethiopia. Central Statistical Authority: Addis Ababa.

The statistical abstracts that are issued every year by the Central Statistical Office/Authority provide total population size by sex for each of the weredas, zones and regions in the country. They also provide population density for each wereda, zone and region on the basis of projection made using the most recent census.

CSA (2000). Analytical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

CSA (2002). Ethiopia Child Labour Survey Report, Central Statistical Authority: Addis Ababa.

These reports contain sex ratios by urban and rural place of residence at regional level for the year 2000.

CSA (2004). Report on Urban Bi-Annual Employment Unemployment Survey October 2003 1st Year Round 1, Central Statistical Authority: Addis Ababa.

CSA (2004). Report on Urban Bi-Annual Employment Unemployment Survey October 2003 1st Year Round 2, Central Statistical Authority: Addis Ababa.

These reports contain sex rations for urban parts at regional level for the year 2000.

Mortality

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wello Region, Central Statistical Authority: Addis Ababa.

These reports contain number of deaths by sex and age group, crude death rates, age specific death rates by sex and urban and rural place of residence at regional level for the year 1984. Abridged life table, children dead and surviving, estimates of infant and childhood mortality levels along with implied life expectancy derived using different methods are also provided in the reports.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 93-107.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for SNNP Region. Vol. I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain estimated infant and child mortality rates and life expectation at birth derived using the Trussell Method by sex at regional and zonal levels classifies by rural and urban place of residence for the year 1994. Also given are number of children ever born and surviving by sex age group of mothers classified by urban and rural place of residence at regional and zonal levels.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa, .

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Gambella Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for SNNP Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain children ever born and surviving, estimates of infant and childhood mortality levels along with implied life expectancy at birth by sex and urban and rural place of residence at regional and zonal levels for the year 1994. In addition, abridged life table for male and female population was also constructed at regional level.

Fertility

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Keffa Region, Central Statistical Authority: Addis Ababa.

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain reported crude birth rate, general fertility rates, age specific fertility rates and cumulative as well as completed fertility at regional level for the year 1984. Also given in the report is estimated age specific fertility rates and total fertility rate at regional level. In addition, the report presents fertility differentials at regional level.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 79-91.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain summary measures (crude birth rate, general fertility rate and total fertility rate); number of women in childbearing age, total and mean of children ever born, number of children born during the 12 months preceding the census, and age specific fertility rates by age group of women and place of residence at regional and zone level for the year 1994.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain number of women in childbearing age, total and mean number of children ever born, number of children born during the 12 months preceding the census, age specific fertility rates, parity progression ratio by age group of women and place of residence at regional and zonal levels for the year 1994. The reports also contain adjusted TFR, CBR, GFR by place of residence at regional and zonal levels. Differentials in TFR by some selected background characteristics of mothers were also presented in the reports.

CSA(1999) Report on the 1998 Health and Nutrition Survey, Central Statistical Authority: Addis Ababa.

These reports contain total children ever born and number of births in the last 12 months preceding the survey, number of women in reproductive age by age group along with age specific fertility rates, total fertility rate, general fertility rate and mean number of children ever born by place of residence at regional level for the year 1998.

CSA(2000) Ethiopia Demographic and Health Survey 2000, Central Statistical Authority: Addis Ababa.

This report contains total fertility rate, mean number of children ever born and percentage of currently pregnant women at regional level for the year 2000.

Ethnic and religious composition

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Keffa Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wellega Region, Central Statistical Authority: Addis Ababa.

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain numerical and percentage distribution of major ethnic groups (10,000 population or more) and religion affiliations by place of residence at regional level ***and some of the towns with large population size.***

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp170-246, 327-369.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain the ethnic distribution population by sex and place of residence at regional and zonal levels. The report also present religious distribution of population by age group, sex, place of residence at regional level. Religious distribution by sex and place of residence is also given at zonal and wereda levels.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain percentage distribution of population by major ethnic groups (500 or more) and religions classified by sex and place of residence at regional level. Also presented in the report is percentage distribution of population by major ethnic groups and religious affiliation at zonal levels.

3.2 Employment Characteristics/Livelihood Profile

A livelihood comprises people, their capabilities and their means of living, including food, income and assets.[1] Among the five key elements of livelihoods three of them focus on work and employment. This, in turn, calls for analyzing the employment situation of an area in order to look at the characteristics of the livelihood. Hence there is a need to assess the activity rate of a given population before looking at the employment situation in the area.

Activity rate is usually defined as the proportion of the total economically active (employed plus unemployed) population to the total working age population[2]. According to the aforementioned definition, the Amhara, Oromia and Benishangul-Gumuz regions that are included in the Abbay River basin respectively have an activity rate of 76.6%, 70.4%, and 69.6%. The unemployment rate, which is computed as the proportion of the unemployed population to the economically active population, is found to be 7.7%, 6.1% and 5.2% for each of regions of that order.

Table 5 : Activity and Unemployment Rates for Persons aged 10 years and over: 1999

REGION	TOTAL		URBAN		RURAL	
	Activity rate	Unemployment rate	Activity rate	Unemployment rate	Activity rate	Unemployment rate
Amhara	76.6	7.7	54.2	22.5	78.8	6.4
Oromiya	70.4	6.1	55.9	19.0	72.3	4.6
Ben-Gumuz	69.6	5.2	57.7	18.8	70.7	4.0

Source: CSA, 1994 National Labour Force Survey

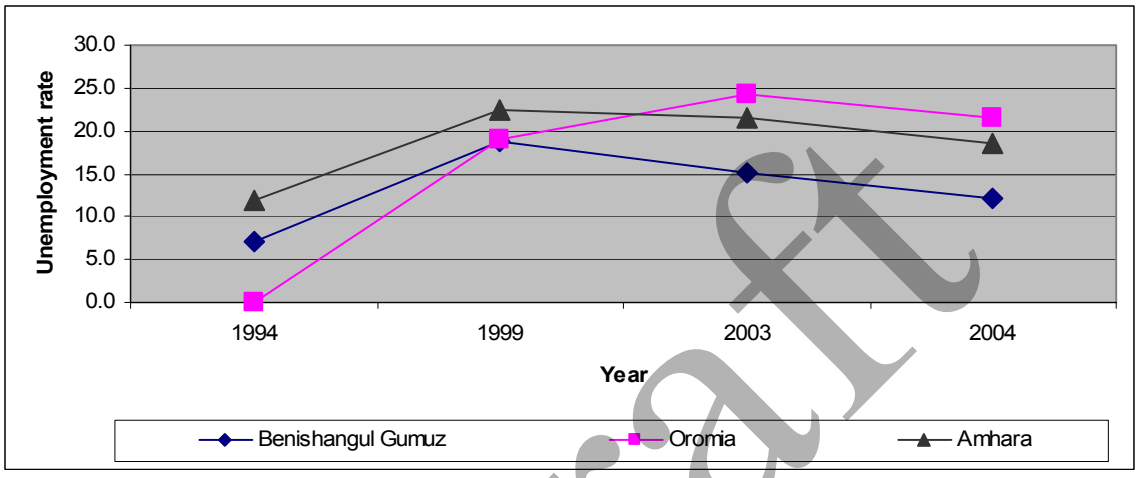
Further breakdown of the data by place of residence shows that urban areas have lower activity rates but higher unemployment rates when compared to their rural counterparts. Activity rate in the urban areas usually lowered due to large size of population engaged in schooling, pension, being a housewife, recipients of remittance, etc.

[1] *http://www.livelihoods.org/SLdefn.html*

[2] The Working age population is usually determined by considering national circumstances. In Ethiopia, population 10 years and over are considered as working age population.

Unemployment rate is mostly pronounced in urban areas mainly due to less absorbing capacity of the urban labor market, high rural-to-urban migration and the like. The urban unemployment rate in Ethiopia since 1994 depicts that there is a slightly high unemployment rate in urban areas of the basin. Available evidences also show that there is a declining trend in the recent past in Benishangul Gumuuz and Amhara Regions with the exception to Oromia.

Fig.3 Trend of Unemployment Rates of Abbay River Basin (Urban Area)

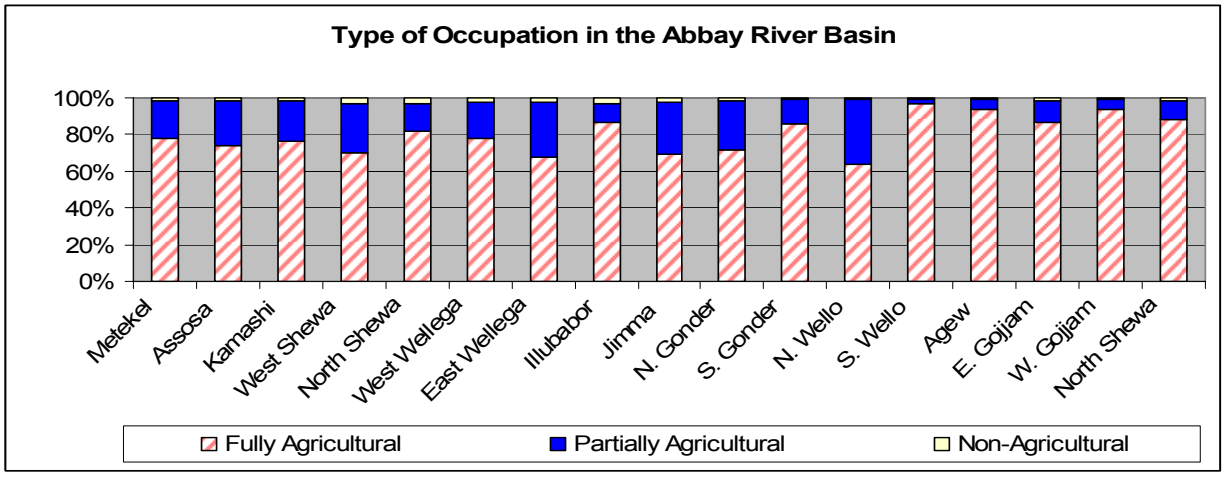


Sources: CSA (1998). Results for the 1994 Population and Housing Census
CSA, (2000). The 1999 National Labor Force Survey
CSA (2004): The 2003/2004 Urban Employment Survey

Major occupations of the rural areas in the regions appears to best explain the livelihood structure of the population in the Basin as more than 90% of them live in rural areas[3]. According to the 2001/2002 Agricultural Enumeration Survey, which is equivalent census in terms of coverage, the majority (i.e. over 60%) of the population in the three regions is engaged in fully agricultural occupations **(Fig 3).** About 22.5%, 18.8% and 13.3% of the population in Benishangul-Gumuz, Oromia and Amhara regions, respectively, engaged in partially agricultural type of occupations while only 1.6%, 2.0% and 3.8% the population of the three regions engaged in non-agricultural occupations in the order shown Above (Table 7)

[3] Abbay River Basin Integrated Development Master Plan Project, Phase 2. Vo. XIV – Demography and sociaology, September, 1998.

Fig. 4

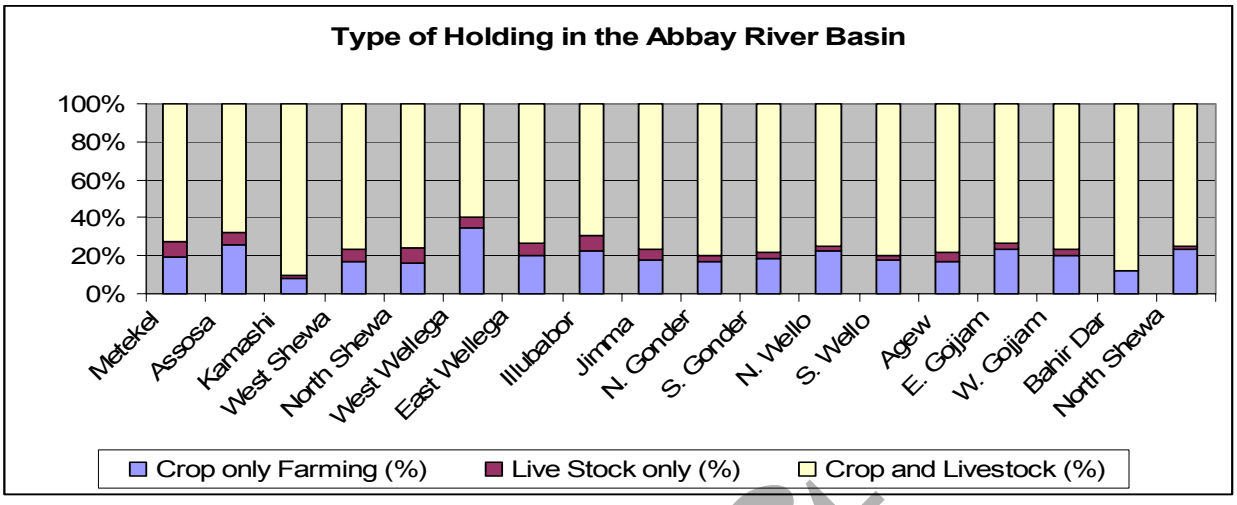


Available data at zonal level also show that most of the population living in the Abbay River Basin is engaged in fully agricultural type of occupation. It ranges between 97.1% among those living in South Wollo administrative zone to 64.1% of North Wollo in the Amhara Region (Fig 4).

Information compiled from the 2001/02 Agricultural Census also showed that the type of holding that is dominant (nearly about three-fourth) in each of the regions located in the Basin is found to be crop and livestock holding, followed by crop only farming (about one-fifth of the holding) and livestock only holding, which is 6.6%, 6.2% and 2.7% for Benishangul-Gumuz, Oromiya and Amhara regions, respectively.

The dominance of crop and livestock holdings in most of the zones located in the Basin area implies that mixed farming (i.e., sedentary agriculture) is more practiced than pastoralism. A smaller proportion of 'only livestock' holdings is also an indicator of few pastoralists in the Basin. Regional level analysis also shows that pastoralist way of life is the lowest in the Amhara region as compared to others. Zonal level analysis, on the other hand, shows that zones located in Oromia region have more people engaged in nomadic activities than zones in the other two regions. In specific terms, a greater proportion of the population living in Illubabor and North Shewa administrative zones of Oromia region are engaged in cattle herding than others, and this supports the contemplation of the relative nomadic character of the population.

Fig. 5



The type of activity that residents engaged in could also describe the livelihood pattern of population living in urban areas of the basin. According to the 1999 National Labor Force Survey, the service sector accommodates almost half of the urban employed population for each of the regions. About 20% of the urban Amhara working population is subsumed by the manufacturing sector (the second highest) while agriculture employs 21.6% of the Benishngul-Gumuz urban residents and 17.8% of the Oromia's urban employed population. Employment opportunity in the public administration is relatively higher (12.3%) in the Benishangul-Gumuz while it is only the least in Oromia (4.9%) and Amhara (6.0%) regions (Fig 5 and Fig 6).

Fig .6a: Proportion of employed persons by types of activities (Benishangul-Gumuz)

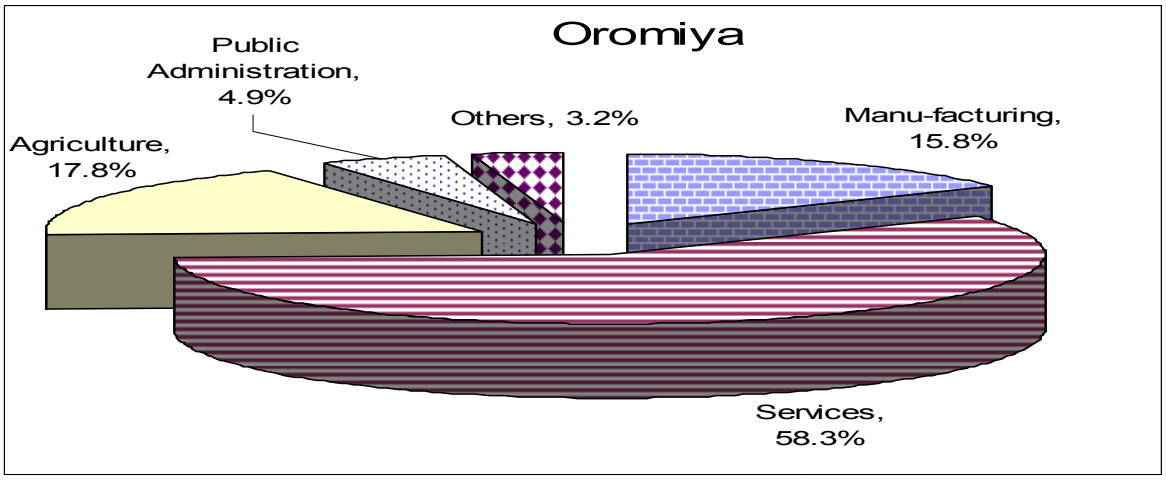


Fig 6b: Proportion of employed persons by types of activities (Oromoiya)

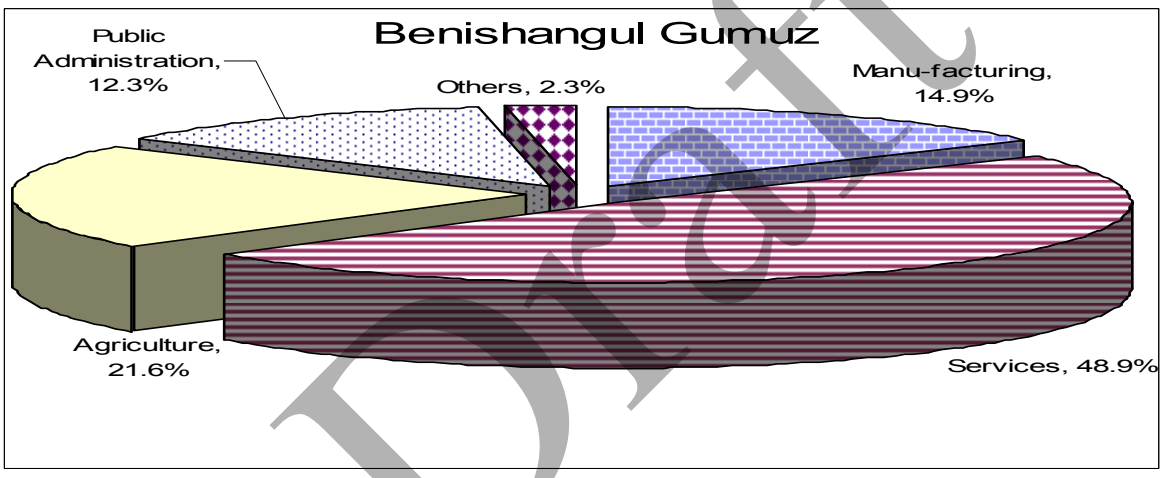
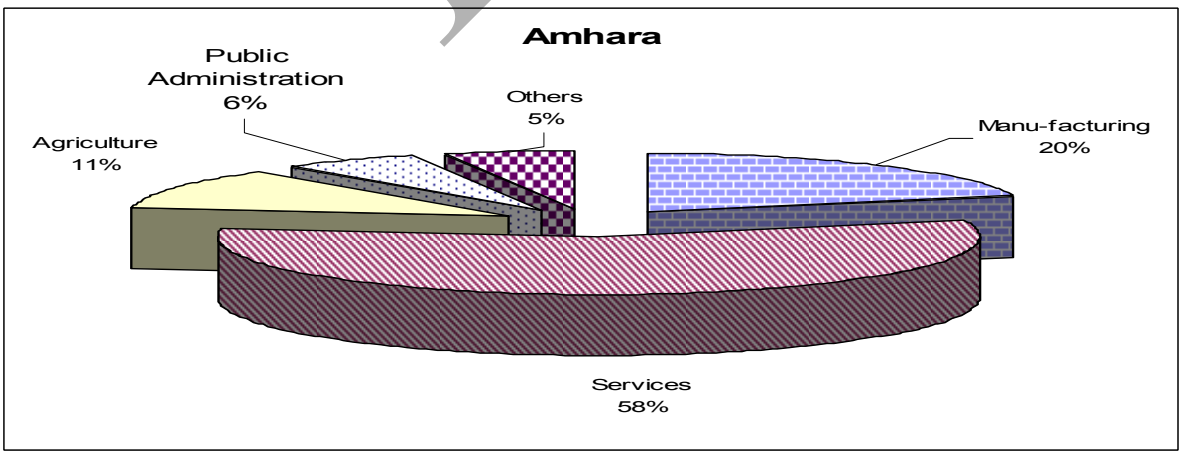


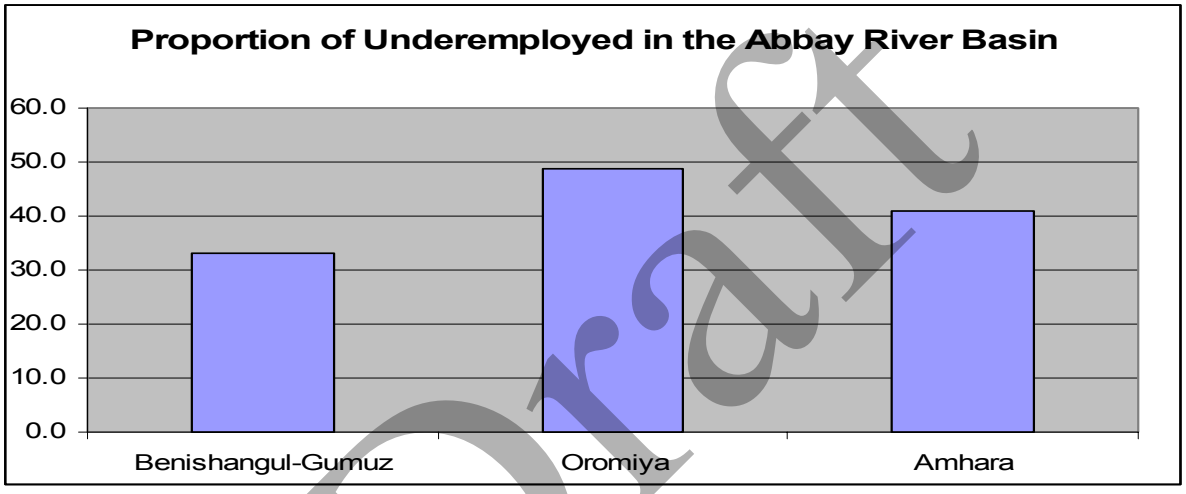
Fig .6c: Proportion of employed persons by types of activities (Amhara)



Underemployment

Although there are different measurements of underemployment, available data depicts that time related underemployment[4] ranges between 33.2% in Benishangul-Gumuz to 48.8 % of employed population in Oromiya Region (Fig 7). The proportion of underemployed in Amhara Region, however, is 42.0%. On the basis of this measurement, it is possible to argue that over two-fifth of the employed human power in the Basin is ready to engage in a work that could allow them to stay more hours intact.

Fig. 7



Secondary employment

Even though the contribution of the non-farm sector is not adequately studied in Ethiopia, its importance cannot easily be underestimated. Based on some studies conducted so far (MoLSA,1997, Tassaw, 2002), the non-farm employment is taken as a coping mechanism or supplementary business than a primary activity. As indicated in Fig7, the proportion of population engaged in off-farm/non-farm activities ranges from 35.8% in North Wollo to 6.1% in Agew Zones of Amhara region (CSA, 2001). The majority of the Abbay basin population, however, undertakes non-farm activity jointly with agriculture (i.e. partially agriculture). Only few 1.6%, 2.0% and 3.8% of the population in Benishangul-Gumuz, Oromiya and Amhara regions, respectively engaged in non-agricultural types of occupation that includes cottage industries, sale of firewood and other forest products, as well as trade and hired labor.

[4] *Time related underemployment measures the proportion of the employed population who have been interested and ready to work additional hours of work but they couldn't found during a certain reference period*

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Authority: Addis Ababa.

These reports contain the distribution of working age population by economic participation status and activity rates, unemployed population and unemployment rates by age group and sex at regional level and ***major urban centers.*** *The reports also present numerical and percentage distribution of employed and unemployed persons and reasons for not engaging in the labor force by sex and place of residence at regional levels and some of the major urban towns for the year 1984. The reports also contain employment status, occupation and industrial characteristics of the employed people by educational level; and the age as well sex characteristics of the unemployed population.*

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 279-299.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for SNNP Region. Vol. I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain major occupational and industrial distribution of the economically active population including skilled and unskilled labor in agriculture, livestock, hunting and fishing, as well as jobs taken as primary activity by sex, age group and place of residence at regional level for the

year1994. The reports also contain minor occupational and industrial distribution of the economically active population by sex and place of residence at regional level.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain major occupational distribution and major industrial distribution of the economically active population by sex and place of residence at regional and zonal levels for the year 1994.

CSA (1999). Statistical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

These reports contain major occupational distribution and major industrial distribution of the economically active population including skilled and unskilled labor in agriculture, livestock, hunting and fishing, as well as jobs taken as primary activity by sex, age group and place of residence at regional and zonal level for Tigray, Amhara, Oromia and SNNP regions for the year 1999. The reports also contain minor occupational and industrial distribution of the economically active population by sex and place of residence at regional level.

CSA (2000). Analytical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

These reports contain major occupational and industrial distribution of the economically active population including skilled and unskilled labor in agriculture, livestock, hunting and fishing as well as jobs taken as primary activity by sex, age group and place of residence at for the year 1994. The reports also contain minor occupational and industrial distribution of the economically active population by sex and place of residence at regional level.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Benishangul- Gumuz Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household, Land Use, Area and Production of Crops, Part I. Central Statistical Office, Addis Ababa.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Gambella Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household, Land Use, Area and Production of Crops, Farm Management Practice, Livestock and Farm Implement. Central Statistical Office, Addis Ababa.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Oromia Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household. Central Statistical Office, Addis Ababa.

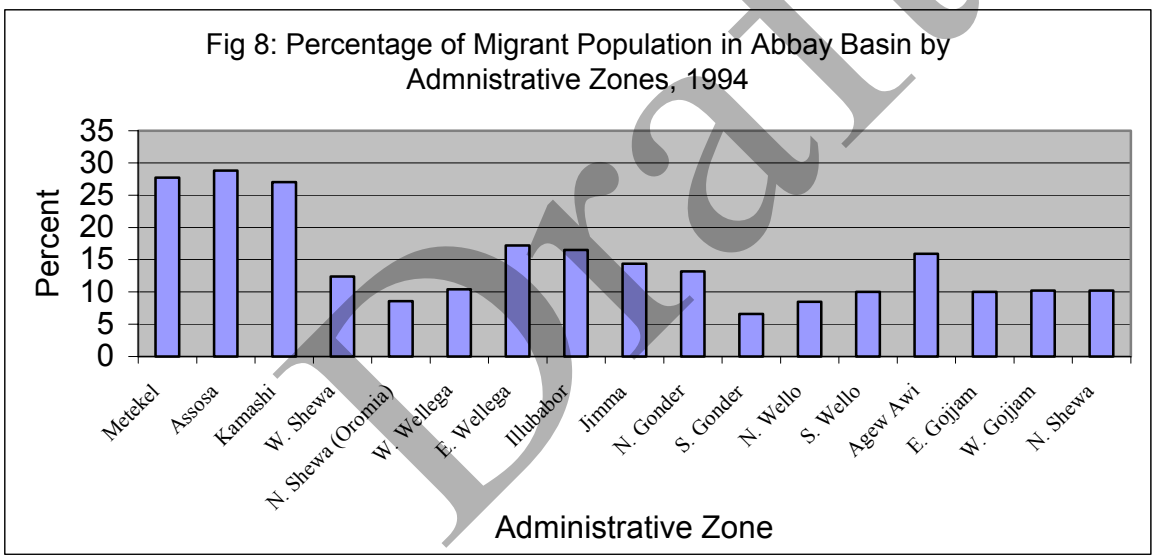
CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for SNNP Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household. Central Statistical Office, Addis Ababa.

These reports contain the type of holding (mixed, crop only and livestock only) of agricultural holders by sex and place of residence at regional, zonal and wereda level for the year 2001/01. The reports also show working status and reasons for not working among the population in the agricultural households by sex and place of residence. They also show employment status and type of working by sex and place of residence at regional, zonal and wereda level.

Human Settlement Pattern

Migration:

Population distribution by migration status also shows that a greater proportion of residents in the Amhara and Oromia Regions are non-migrants while a slightly over a quarter of residents in of the Benishangul Gumuz Regional State are migrants from elsewhere (Fig …). This could be due to the impact of the Derg's resettlement program in 1980s that aimed at moving a number of people from drought-affected areas of Central Ethiopia to the regions that were sparsely populated. A number of people had been resettled in the current Besnishangul Gumuz and Gambella Regional States through such resettlement program (**source**).



Sources: CSA (1999) The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Volume II Analytical Report
CSA (1998a) The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Volume II Analytical Report
CSA (1998b) The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Volume II Analytical Report

Although considerable variation is observed with regard to stream of migration across regions, rural to rural migration dominates among the population residing in the Abbay River Basin (Fig 8). This implies that most of the residents of the basin area move in and out in search of fertile land or take part in agricultural activities than looking for better opportunities in urban centers.

Table 6: Patterns of Migration in Abbay River Basin, 1999

Direction of Move	Benishangul Gumuz		Oromia		Amhara	
	In-Mig Rate	Out-Mig Rate	In-Mig Rate	Out-Mig Rate	In-Mig Rate	Out-Mig Rate
Rural-Rural	63.9	57.9	44.2	30.0	43.7	40.5
Rural-Urban	8.8	4.2	22.1	19.2	20.8	23.3
Urban-rural	9.1	18.9	14.1	16.7	17.7	7.2
Urban-Urban	18.2	19.0	19.6	34.1	17.8	29.1

Source: CSA (1999). National Labor Force Survey Report. Addis Ababa.

Urban Centers that could be reached by Road, Rail and Air:

Ethiopia, being one of the least developed countries in the world, people often move using traditional means of transport mainly pack animals or on foot. Public transport is rarely available for public consumption, as most of the towns in the Basin do not have access to asphalt or all weather paved roads. Though no information is readily available to indicate the proportion of urban centers that have access to roads, very few towns in the basin (one from Benishangul Gumuz; four from Oromia and six from Amhara Region) can be reached by air (Table 6). None of the towns or cities located in the Basin could be accessed by rail. There is only one railway running between Addis Ababa, the Capital City, and Djibouti, a neighboring country, in Ethiopia. This implies that there is acute shortage of transport facilities in the basin area.

Urban Centers by Population and Primacy:

Available evidences show that most of the towns found in the administrative zones located in the Basin have a population size of less than 5,000. There are only four cities (one in Oromia and three in Amhara Regions) with population size of more than 100,000 while those having population size of 50,000 to 100,000 are limited to three (again one in Oromia and three in Amhara Regions). Small population size in most of the urban centers located in the Basin shows that residents of the area have little exposure to modern way of life and predominated by subsistence economy that would not allow them to take off shortly.

All of the urban centers with large population size in the Basin are capital town of zonal or regional administration. Concentration of population in such towns/cities is due to the political importance of the area than their attraction for increased productivity or economic importance.

Town or Cities with University/College and Hospitals:

Until recently higher teaching institutes, particularly universities and colleges had been concentrated in few cities of the country due to the political ideology that the previous government used to follow. Private colleges and universities got recognition very recently and there was very limited initiative on the part of the Ethiopian Government to open universities in different parts of the country. As a matter of fact, colleges and universities have been concentrated in very few towns or cities. Most of the newly emerged colleges and universities are at their early stage to provide quality education that would promote development in their surroundings. As a whole there are about … colleges and --- universities throughout the Ababy River Basin.

Table 10 Human Settlement Pattern in Abbay river Basins

Location	Proportion of Urban Population with					Size of Largest Urban Center	Number of Urban Centers with Universities/ Colleges*	No. of Urban Centers with Hospitals	Number of urban center that can be reached by	
	< 5,000	5,001 to 10,000	10,001 to 50,000	50,001 to 100,000	>100,000				Road	Air
Ben.Gumuz	**8**	**4**	**1**					**2**		**1**
Metekel	6	3				Bulen		1		
Assosa	2	1	1			Assosa		1		1
Kamashi	-	-	-	-		-				
Oromia	**210**	**88**	**70**	**4**	**3**	**Adama**		**29**		**5**
West Shewa	28	7	12			Ambo	1			
North Shewa	19	7	2			Fiche				
West Wellega	23	9	4			Gimbi				2
East Wellega	23	5	5	1		Nekemte	1			
Illubabor	19	5	3			Metu				1
Jimma	14	12	2		1	Jimma	1			1
Amhara	**117**	**41**	**44**	**3**	**3**	Gonder		17		**6**
N. Gonder	18	11	5		1	Gonder	1			1
S. Gonder	9	3	7			Debretabor				1
N. Wello	4	4	4			Weldiya				1
S. Wello	22	4	3	1	1	Dessie				1
Awi	8	4	2			Chagni				
E. Gojjam	15	4	6	1		Debre Markos				1
W. Gojjam	9	5	7			Finote Selam				
Bahir Dar	-	-	-	-	1	Bahir Dar	1			1
North Shewa	24	4	7	1		Debre Berhan				

*counted based on 2003/04 MOH Education Abstract list of recognized higher institutions

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wellega Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wello Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gojjam Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain the level of migration by sex and place of residence; stream of in- and out-migration rates by place of residence and sex. It also presents forms of migration by sex and place of origin for the year 1984. Information, however, is available at the then administrative region level.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 10-73.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain migration status (i.e. level of migration) and length of residence at place of enumeration by sex, age group and place of residence at regional level for the year 1994.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain percentage distribution of migrants and years of last arrivals of migrants by sex and place of residence at regional and zonal levels for the year 1994. Also given are in-migration rates by age group; forms of migration and area of previous residence by length of residence at regional level .In addition, the reports provided socio-economic and demographic characteristics of migrants and non-migrants (e.g. age, sex, marital status, education and economic participation) at regional level for the year 1994.

CSA (1999). Statistical Report on 'The 1999 National Labour Force Survey', Central Statistical Authority: Addis Ababa.

This report contains migration status and duration of residence by sex and place of residence at regional and zonal levels for Tigray, Amhara, Oromiya and SNNP regions for the year 1999. Also given are the size of recent migrants by current and previous region of residence classified by sex and place of residence; reasons for migration by sex and place of residence at region level and zonal levels for some of the selected regions (Tigray, Amhara, Oromiya and SNNP regions). The reports also indicate actual number and percentage distribution of respondent by migration status.

CSA (2000). Analytical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

This report contains volume and level of all migration and recent migrants by sex, urban and rural place of residence at regional level for the year 1999. It also contains number of recent in- and out-migrants by sex, as well as form and type of migration at regional level. Percentage distribution of recent migrants' reason for move is also given by sex for each of the regions included in the study.

Urban centers by population and primacy

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Keffa Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wellega Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wello Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gojjam Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain the population size of all urban centers by sex, and major towns by age and sex.

CSO (1976 to 1984) and CSA (1985 to 2004). Statistical Abstract - Ethiopia. Central Statistical Authority: Addis Ababa.

The statistical abstracts that are issued every year by the Central Statistical Office/ Authority provide total population size by sex for each of the towns in the country.

2.4 Social and Physical Infrastructure Provision

Development programs and plans require accessible infrastructure and proper service delivery in place. On the converse, setting good infrastructure and proper service delivery mechanisms are vital elements of development programs.

This section gives an assessment of social and physical infrastructure in the Abbay River Basin. The assessment includes a general discussion on access to education, health and other facilities. Attention is also paid to services at schools and health facilities including class size at different level of schoolings, population-health personnel ratio and the like.

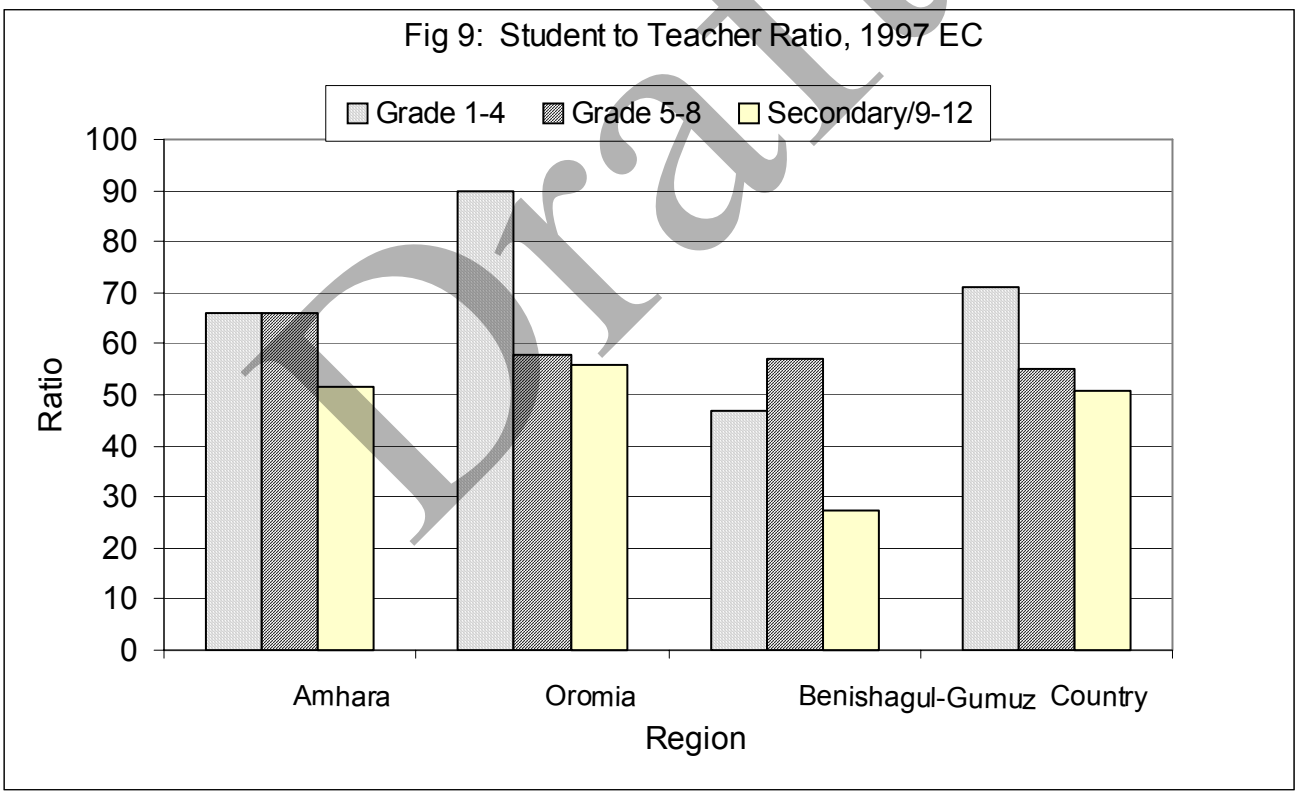
2.4.1 School Services

The school system in the new education policy of Ethiopia consists of primary school (grade 1-8), secondary school (grade 9-10) and preparatory (grade 11-12), and technical and vocational education and training (TVET) (MOE, 1995). The secondary education program comprises two cycles. The first cycle (grade 9-10) deals with general education aimed at understanding the social and natural environment while the second cycle (11-12) is planned to let students identify their areas of interest and choose subjects or areas of training in colleges and universities to be successful in their academic performance and the world of work. The program mainly concentrates on improving the quality of education and increases the young people's access to education (**source**).

As basin specific data on the number of school facilities are not available, such information is provided at regional level for each of the regions located in the Abay River Basin. Accordingly, there are 299 primary schools in Benishangul-Gumuz Region, 5043 in Oromia Region and 3157 in Amhara Region. There are also 18 secondary and preparatory schools in Benishangul-Gumuz, 214 in Oromia 106 in Amhara Regions. The number of TVET schools is 2 in Benishangul-Gumuz Region, 37 in Oromia and 21 in Amhara regions (MOE, 2003).

Student-Teacher Ratio:

Student to teacher ratio (STR) is one of the common indicators of efficiency and quality of education. The lower the STR, the higher the opportunity of contact between the teacher and the pupil to check their activities: assignments and class works. Better support could also be provided to students if the class size is manageable. On the other hand, very low STR may indicate inefficiency or under utilization of teachers. In the academic year 2004/5, there are 293 and 2631 teachers in primary (grade 1-8) and secondary (grades 9-12) schools located in Benishangul-Gumuz Region, respectively. Similarly, the number of primary and secondary school teachers in Oromia Region is 57,894 and 6185. In Amhara Region, there are 42,414, and 3626 teachers in primary (grade 1-8) and secondary (grades 9-12) schools. Given the increased rate enrollment in each of the regions located in the Basin, there were 50, 78, and 66 students per every teacher in primary school in Benishangul-Gumuz Oromia and Amhara Regions.

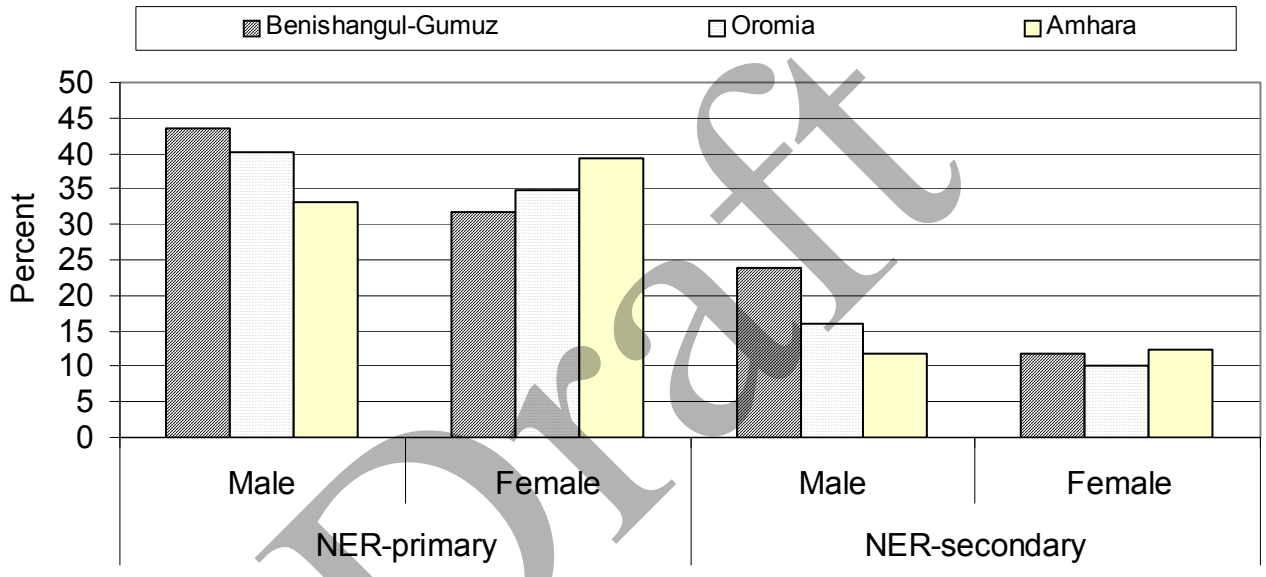


The corresponding student teacher ratio in secondary school was 28, 56 and 52 in Benishangul-Gumuz, Oromia, and Amhara regions (Fig 9). In Ethiopia, a student-teacher ratio of 50 is set for primary school while it is 40 for the secondary school. In view of this, it is possible to argue that there is sufficient number of teachers in Benishangul-Gumuz while there is shortage of teachers in Amhara and Oromia Regions.The problem, however, is more pronounced in Oromia region.

Enrollment Rates:

The net enrollment ratio is defined as the number of pupils of primary school (age 7-12 years) who are currently attending primary school divided by the total number of children in the age group 7-12 years. Similarly, the net enrollment ratio at secondary school level is defined as the proportion of children aged 13-18 years and is attending secondary school (grade7-12) devided by the total number of children in age group13-18 years.

Fig 10: Net Enrollment Ratios at Primary and Seconday School Levels: 2004



As shown in Fig 10, The **Net Enrolment rate** in primary education in the year 2004 was 43.6 for males and 31.7 for females in Benishangul-Gumuz region. Similarly, net enrollment ratios at primary level is 40.2 and 34.7 for the males in Oromia and Amhara regions, respectively, while it is 33.2, and 39.3 for females for each of the regions indicated above. The data, in general, show that more than half of the young age population who could have attended schooling at ages 7 to 14 are not there in each of the zones located in the basin. Enrollment at secondary school level is, nonetheless, very low in all of the three regions. Over three-fourth of the population eligible for secondary education appears to engage in different activities indicating that the role of education in promoting development is significantly marginalized among the residents of the Abbay Basin. This could be due to lack of access to secondary education or the effect of household poverty to send children for education.

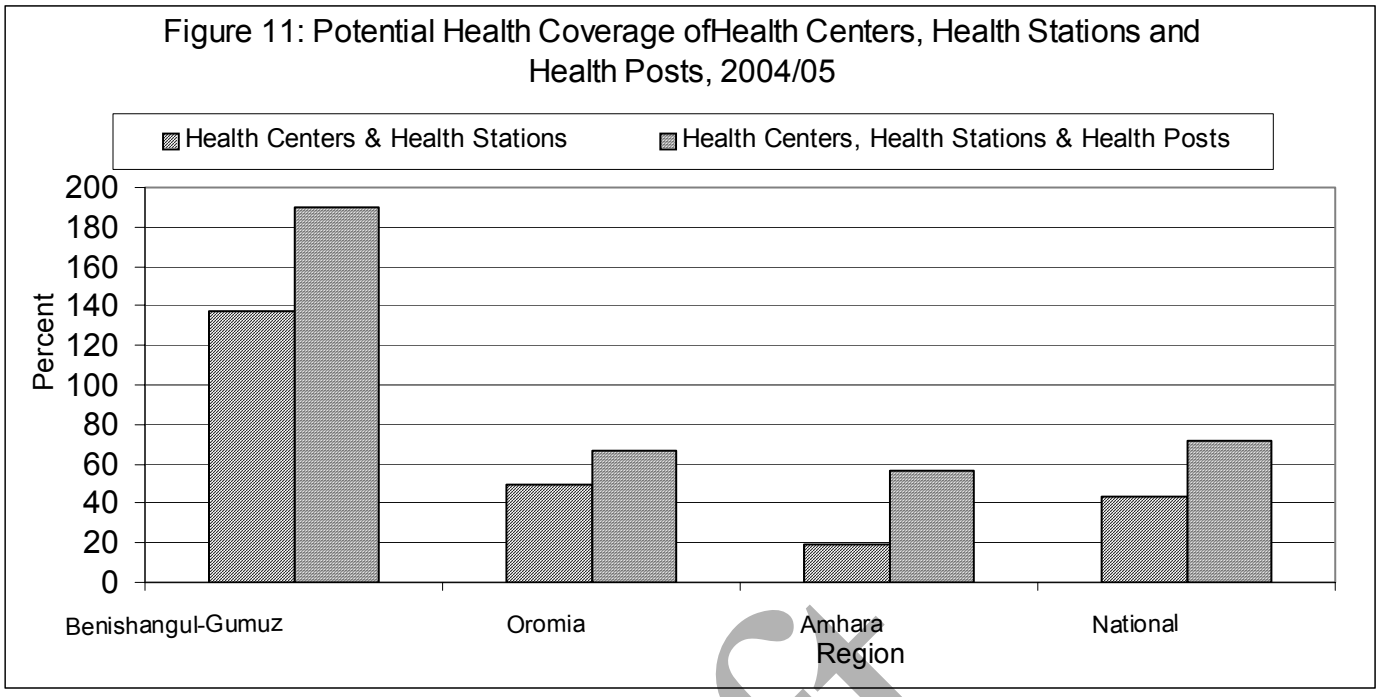
Health Services:

The extent to which a given population has access to health services is one of the development indicators in a given country. The higher the access to health services the better the quality of life would be.

a. Number of Health Facilities and Health Coverage:

The six-tiered national health care system in Ethiopia consists of community health services (health posts), health stations (clinics), district hospital, regional hospitals, and central referral hospitals. Health posts are one of the satellite facilities organized at the Primary Health Care Unit. The existing community health service at a health post has one community health agent (CHA) and one trained traditional birth attendant (TBA) to render basic health services. Each health post is expected to serve about 5,000 people. Health stations (clinics) are the smallest health units in the conventional health service structure and are staffed with 1-3 health assistants, and expected to serve 10,000 people. Though it is not possible to trace information on the number of health facilities at basin level, there are 121 health posts and clinics in Benishangul-Gumuz Region while there are 1729 in Oromia Region, and 1461 in Amhara Region.

On the basis of the health services expansion program, health centers cover wider area and provide specialized outpatient services in Ethiopia. A health center is expected to provide services for at least 25,000 people while hospitals are expected to serve as referral centers for the population in the catchments area. There are few health centers and hospitals in each of the regions located in the Abbay River Bassin. Only 2 and 11 health centers are located in Benishangul-Gumuz Region while there are 30 hospitals and 185 health centers, and 18 hospitals and126 health services respectively in Oromia and Amhara Regions. Hospitals in the regions are also equipped with limited hospital beds and specialized staff. Only 254 beds are available in hospitals found in Benishngul-Gumuz while 2311 and 1505 beds are found in hospitals of Oromia and Amhara regions, respectively.



Though private sector involvement in the health sector is important to enhance the quality and coverage of health services, very few private clinics and health centers are available in the three regions located in the Abbay River Basin. According to the health information compiled by the MOH, there are 19 clinics in Benishangul-Gumuz, while they are 672 and 304 in Oromia and Amhara Regions, respectively.

The MOH calculates health coverage rate on the basis of the number of health facilities (i.e. health centers, health stations and health posts) and the expected catchments areas in each of the administrative units (MOH, 2005). As shown in Fig 11, the potential health coverage in Benishangul-Gumuz region is over 100 percent while access in Oromia and Amhara regions is excessively below full coverage. This indicates that there is a serious problem in promoting health services through the country without even considering its quality. If access to health is required for all population living in each and every corner of the basin, one needs to work hard to build more health facilities in Amahra and Oromia regions besides ensuring the quality of services in all of the three regions.

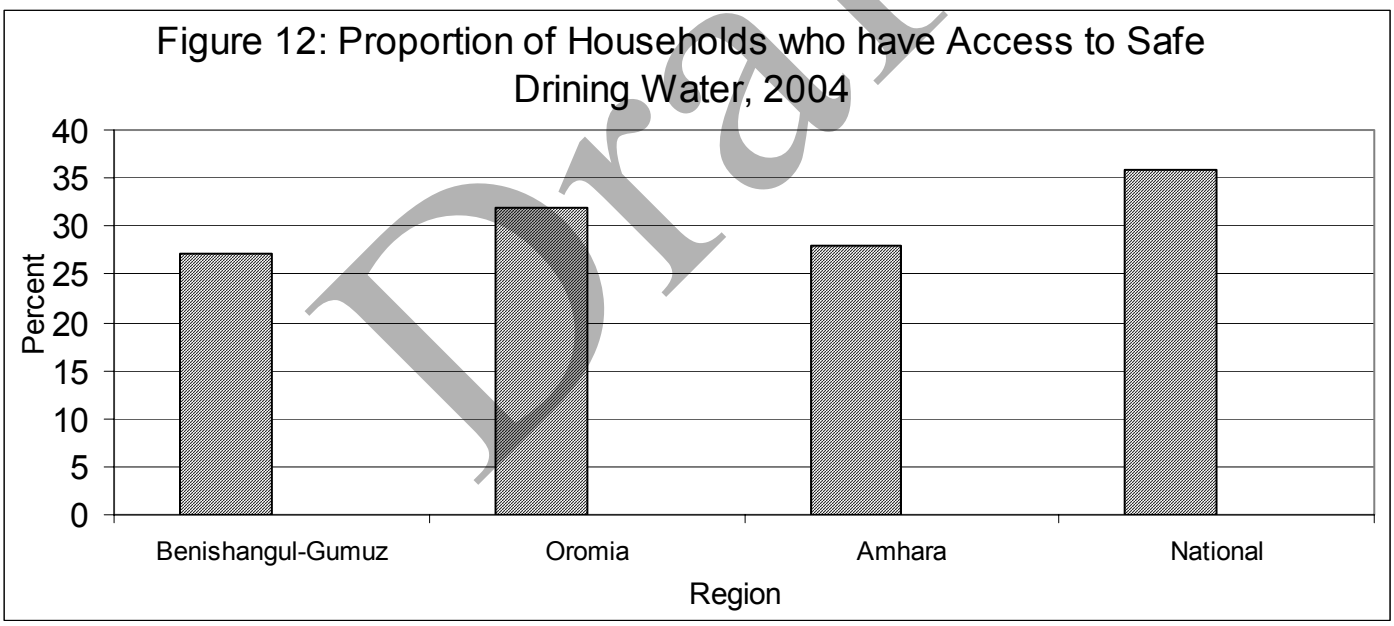
b. Health Personnel:

Another indicator of access to health is the ratio of population to available health professionals that include physicians, health officers, nurses, environment health workers and health extension workers. The number of population per physician is the lowest (43, 536) for Benishangul-Gumuz while it is 138,802, and 142,184 for Oromia and Amhara regions, respectively. At national level the ratio of

population per physician is 29,777. The number of people to be served by a physician in all the three regions located in the Abbay Basin is far away from the standard set by the World Health Organization, which is 10,000 people per physician. This indicates that emphasis should be given to human resource development in addition to building infrastructure.

Source of Drinking Water:

Welfare Monitoring Survey conducted by the CSA indicates that 27.2 percent of households in Benishangul-Gumuz Region have access to safe drinking water that includes protected well or spring, shared and own tap. Similarly, 32 percent and 28 percent of households in Oromia and Amhara regions get drinking water from safe sources. This implies about 70 percent of the households in the regions are using water from unsafe sources that are exposed to water borne diseases causing diarrhea, cholera, dysentery, etc.



Access to selected Basic Services

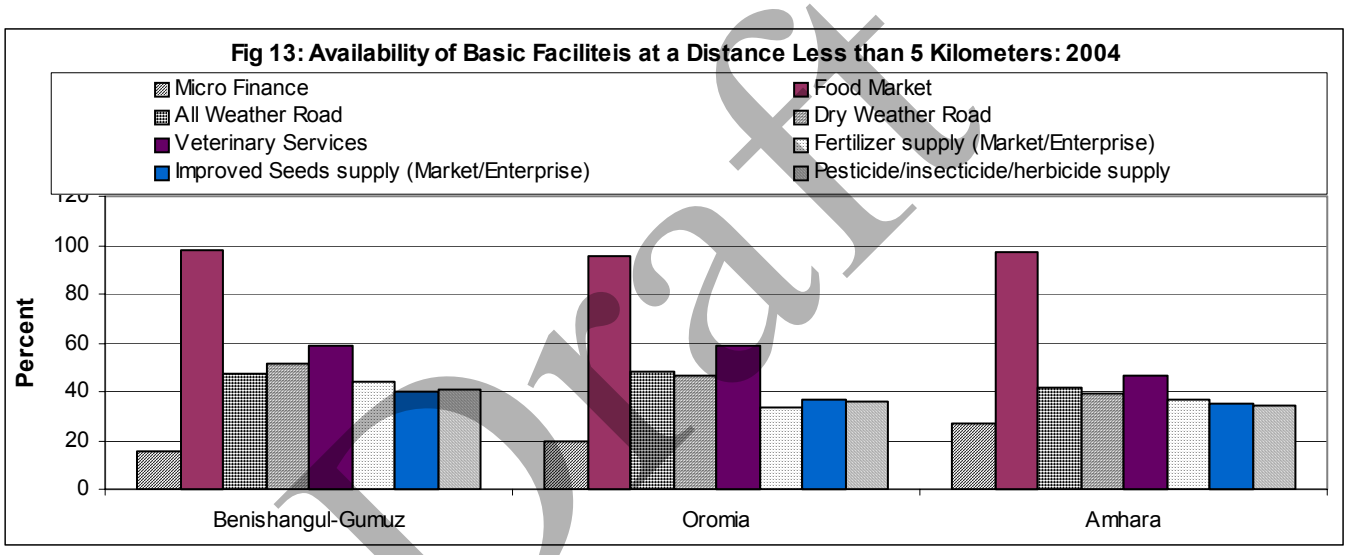
a. Food Markets

According to the findings of the Welfare and Monitoring Survey, food markets are available at a distance less than five kilometers for most of the households in the Benishangul-Gumuz, Oromia and Amhara regions. Given the availability of consumable items in the market and financial resources to purchase

commodities needed by the household, there would not be serious problem to travel to market places. What might be a burning issue for residents in the Basin is potential demand for their produces and financial ability to purchase factory products.

b. All Weather Roads

Results of the 2004 Welefare Monitoring Survey conducted by the CSA reveal that about 47 percent of the rural households in Benishangul Gumuz are living in less than five kilometers away from the closest all weather roads. The corresponding figures for Oromia and Amhara regions are 48 percent and 42 percent, respectively indicating that over half of the population in the basin area do not access to all weather roads.



Source: CSA (2004) Welfare and Monitoering Survey

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CSO (1992) Rural Labour Force Survey, 1987/88, Statistical Bulletin 108, Central Statistical Office, Addis Ababa

These reports contain literacy status and level of education of population by sex at regional levels for the year 1981 and 1992, respectively.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

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Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain age-sex specific enrolment rates gross and net enrolment rates by place of residence at regional level for the year 1984. The reports also contain numerical and percentage distribution of population by school attendance status and sex for major urban centers with population size of 10,000 and above.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 10-158.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain status of school attendance and level of schooling by age group, sex and place of residence at regional level; and status of school attendance and level of schooling by sex and place of residence at zone level for the year 1994.They also contain gross and net enrolment ratios in primary and secondary schools by sex and place of residence at regional, zonal and wereda levels. The reports, moreover, provide the distribution of population by literacy status and highest grade completed by sex, and place of residence at regional, zonal, wereda levels.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain status of school attendance status distribution, gross and net enrolment rates by sex and place of residence at regional and zonal levels for the year 1994. The reports also contain the distribution of those currently attending school by age, sex, grade and place of residence and also show school progression at regional level by sex and place of residence. Age-sex specific enrolment rates as well as gross and net enrolment rates are also given by place of residence at regional level for the year 1984. The reports also show percentage distribution of population by literacy status, and highest grade completed across sex and place of residence at regional and zonal levels.

CSA(2000) Ethiopia Demographic and Health Survey 2000, Central Statistical Authority: Addis Ababa. This report contains literacy status and highest level of schooling at region level all persons age five and above living in sampled households for the year 2000.

CSA (1999). Statistical Report on 'The 1999 National Labour Force Survey', Central Statistical Authority: Addis Ababa.

CSA (2000). Analytical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

These reports contain literacy status and highest grade completed of literate population by sex at region and zonal level for Tigray, Oromiya, Amhara and SNNP regions in 1999.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Benishangul- Gumuz Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household, Land Use, Area and Production of Crops, Part I. Central Statistical Office, Addis Ababa.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Amhara Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household, Land Use, Area

and Production of Crops, Farm Management Practice, Livestock and Farm Implement. Central Statistical Office, Addis Ababa.

CSA(2003) Ethiopian Agricultural Sample Enumeration, 2001/02 Result for Oromia Region, Statistical Report on Socio-Economic Characteristics of the Population in Agricultural Household. Central Statistical Office, Addis Ababa.

These reports contain literacy status and level of education of agricultural household population by sex, place of residence and holding status at regional level for the year 2001/02. The reports also contain proportion literate by sex and place of residence at regional, zonal and wereda levels.

CSA(1996) Report on the Year 1996 Welfare Monitoring Survey, Volume I. Statistical Bulletin 205, Central Statistical Authority, Addis Ababa, pp 51-73.

This report contains literacy rate, gross and net enrollment ratios, and school drop-outs by sex, distance to the nearest primary/secondary school of households in rural areas at regional level and some selected urban centers for the year 1996

CSA(1998) Report on the 1998 Welfare Monitoring Survey, Statistical Bulletin 224, Central Statistical Authority, Addis Ababa, pp 91-122.

This report contains literacy rates, gross and net enrollment ratios, level of schooling and distance to the nearest primary school by sex and for rural areas at regional and zonal level and for some selected urban centers for the year 1998

CSA(2000) Report on the 2000 Welfare Monitoring Survey, Statistical Bulletin 259, Central Statistical Authority, Addis Ababa. pp 201-247

This report contains literacy rates, gross and net enrollment ratios, level of schooling and distance to the nearest primary school by sex at regional and zonal levels, as well as selected urban centers for the year 2000.

CSA (2004). Welfare Monitoring Survey, Statistical Report on Basic Population Characteristics: Education, Health, Nutritional Status and Child Care. Statistical Bulletin 339-B, Central Statistical Authority, Addis Ababa.

This report contains literacy rates, highest grade completed, gross and net enrollment ratios, and type of school by sex and place of residence by sex and place of residence at regional level for the year 2004

CSA(2003-2004) Report on Urban Bi-Annual Employment Unemployment Survey Round 1(2003) and Round 2(2004), Central Statistical Authority: Addis Ababa.

These reports also contain literacy status and highest grade completed by sex for urban areas at regional level.

Occupation

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Illubabor Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Keffa Region Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wellega Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Wello Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gojjam Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Gonder Region, Central Statistical Authority: Addis Ababa.

Office of the Population and Housing Census Commission (1990). Population and Housing Census 1984. Analytical Report on Shewa Region, Central Statistical Authority: Addis Ababa.

These reports contain distribution of economically active population by major occupation and industry, sex and place of residence at regional levels for the year 1984

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol I: Part III. Statistical Report, Central Statistical Authority: Addis Ababa, pp 279-289.

CSA (1995). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

CSA (1996). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. I. Statistical Report, Central Statistical Authority: Addis Ababa.

These reports contain major occupational distribution by sex, age group and place of residence at regional level and minor occupational distribution by sex and place of residence at regional level for the year 1994.

CSA (1998). The 1994 Population and Housing Census of Ethiopia. Results for Oromia Region. Vol . II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Amhara Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

CSA (1999). The 1994 Population and Housing Census of Ethiopia. Results for Benishangul-Gumuz Region. Vol. II. Analytical Report, Central Statistical Authority: Addis Ababa.

These reports contain major occupational distribution by sex and place of residence at regional and zonal levels for the year1994.

CSA (1999). Statistical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

This report contains major occupational distribution by sex and place of residence at regional and zonal levels for the year 1999.

CSA (2000). Analytical Report on The 1999 National Labour Force Survey, Central Statistical Authority: Addis Ababa.

This report contains major occupational distribution by sex and place of residence at regional level for the year 1999.

CSA(2003-2004) Report on Urban Bi-Annual Employment Unemployment Survey Round 1(2003) and Round 2(2004), Central Statistical Authority: Addis Ababa.

This report contains major occupational distribution by sex for urban areas at regional level for the year 2004.

Health Facilities

CSO (1976 to 1984) and CSA (1985 to 2004). Statistical Abstract - Ethiopia. Central Statistical Authority: Addis Ababa.

The statistical abstracts that are issued every year by the Central Statistical Office/ Authority also provide the total number of hospitals, health centers, and clinics; as well as total number of medical personnel at regional level.

CSA(1996) Report on the Year 1996 Welfare Monitoring Survey, Volume I. Statistical Bulletin 205, Central Statistical Authority, Addis Ababa, pp 32-38.

This report contains distribution of households according to type of health facility consulted, distance to the nearest health facilities, use of health facilities in rural areas at regional level and some selected urban centers for the year 1996

CSA(1998) Report on the 1998 Welfare Monitoring Survey, Statistical Bulletin 224, Central Statistical Authority, Addis Ababa, pp 48-70.

This report contains distribution of households according to incidence of health consultation, personnel consulted, distance to the nearest health facilities, use of health facilities in rural areas at regional and zonal levels as well as in some selected urban centre for the year 1996.

CSA(2000)Report on the Year 2000 Welfare Monitoring Survey, Volume I. Statistical Bulletin 259, Central Statistical Authority, Addis Ababa. pp 255-274

This report contains distribution of households according to incidence of health consultation, frequency of visits, distance to the nearest health facilities, use of health facilities at regional and zonal level as well as some selected urban centers for the year 2000

CSA(2004) Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 21-120.

This report contains distribution of households according to distance to the nearest health facilities (health post, clinic, health center, hospital and pre/post natal care), use of health facilities and reason for not using health facilities by place of residence at regional level for the year 2004.

Access to Water and Sanitation

CSA(1996)Report on the 1996 Welfare Monitoring Survey. Statistical Bulletin 205, Central Statistical Authority, Addis Ababa, pp 110-129

This report contains distribution of households according to source of drinking water, toilet facility and method of waste disposal in rural areas at regional level and some selected urban centers for the year 1996.

CSA(1998)Report on the 1998 Welfare Monitoring Survey, Statistical Bulletin 224. Central Statistical Authority, Addis Ababa, pp 170-188

This report contains distribution of households according to source of drinking water, and toilet facility in rural areas at regional and zonal levels and some selected urban centers for the year 1998.

CSA(2000)Report on the 2000 Welfare Monitoring Survey, Volume II Statistical Bulletin 259, Central Statistical Authority, Addis Ababa, pp 209-210, 221-228

This report contains distribution of households according to source of drinking water, toilet facility and method of waste disposal at regional and zonal levels, and some selected towns for the year 2000.

CSA(2004)Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 123-131, 150-161

This report contains distribution of households according to distance to the nearest drinking water during dry and rainy seasons, use of facilities and reasons for not using facilities by place of residence at regional level for the year 2004. The report also shows the distribution of households by source of drinking water, and type of toilet facilities by place of residence at regional level.

Access to all weather roads

CSA(2004)Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 21-120.

This report contains distribution of households according to distance to the nearest all weather and dry weather roads, use of facilities and reasons for not using facilities by place of residence at regional level for the year 2004.

Access to markets

CSA(2004)Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 21-120.

This report contains distribution of households according to distance to the nearest food market, use of facilities and reasons for not using the facilities by place of residence at regional level for the year 2004.

Access to Credit, Extension and veterinary Services

CSA(2004)Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 21-120.

This report contains distribution of households according to distance to the nearest **credit and extension service provision centers,** use of the facilities and reasons for not using the facilities by place of residence at regional level for the year 2004.

3.5 Major Human and Livestock Diseases

HIV Incidence:

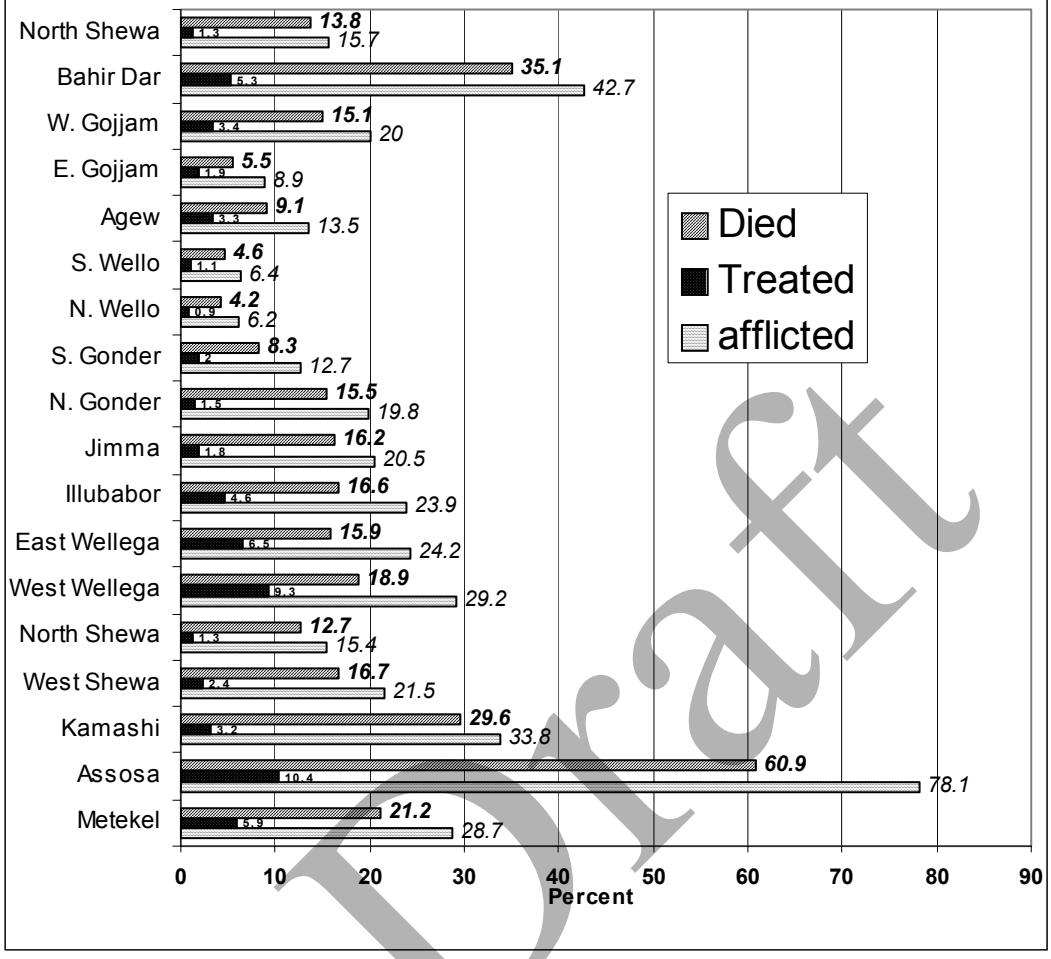
The 'HIV AIDS Main Indicators Report' produced by the Ethiopian Federal Ministry of Health in 2005 shows the incidence of HIV virus among the population aged 15-49 years. According to this report, about 4% of the population aged 15-49 years currently living in Benishangul-Gumuz region are infected with HIV virus every year. The incidence rate in Oromia region is about 2.9 percent while that of Amhara region is 8.0 percent. Considering the great health, economic and social implication of the virus on the illnesses and deaths associated with AIDS, efforts should be made by the general public, government, NGOs and other concerned bodies. Much emphasis should, however, be given to those residing in the Amhara region as the spread of the virus is relatively higher over there.

Livestock Diseases:

Livestock diseases have numerous negative impact on productivity of herds including death of animals, loss of weights, slow down growth, poor fertility performance, decrease in physical power etc. Vaccination is one of the ways to protect animals from diseases. Animals can also be treated to cure livestock from different kinds of diseases.

As shown in **Fig 14**, livestock in Assosa Administrative Zone of Benishangul-Gumuz Region are highly affected by livestock diseases: 78 percent of its cattle being diseased of which 60 percent died. The diseases afflict a sizeable proportion of livestock in Kemashi, Metekel, West Wellega, Illubabor, North Gonder, and Bahirdar zones as well. On the basis of the given information , it is possible to argue that treatment of livestock did not match with the size afflicted nearly in all administrative zones located in the basin.

Fig 14: Proportion of Cattels Vaccinated, Affilicted,and Died in Zones located in Abay Basin: 2001/02



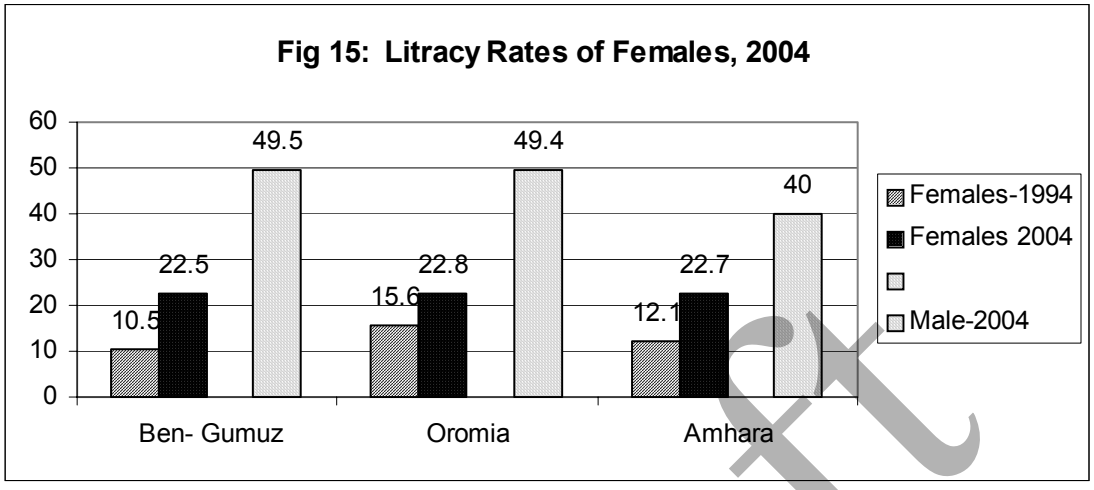
Source: CSA, 2003.

3.6 Gender Indicators

Female Literacy:

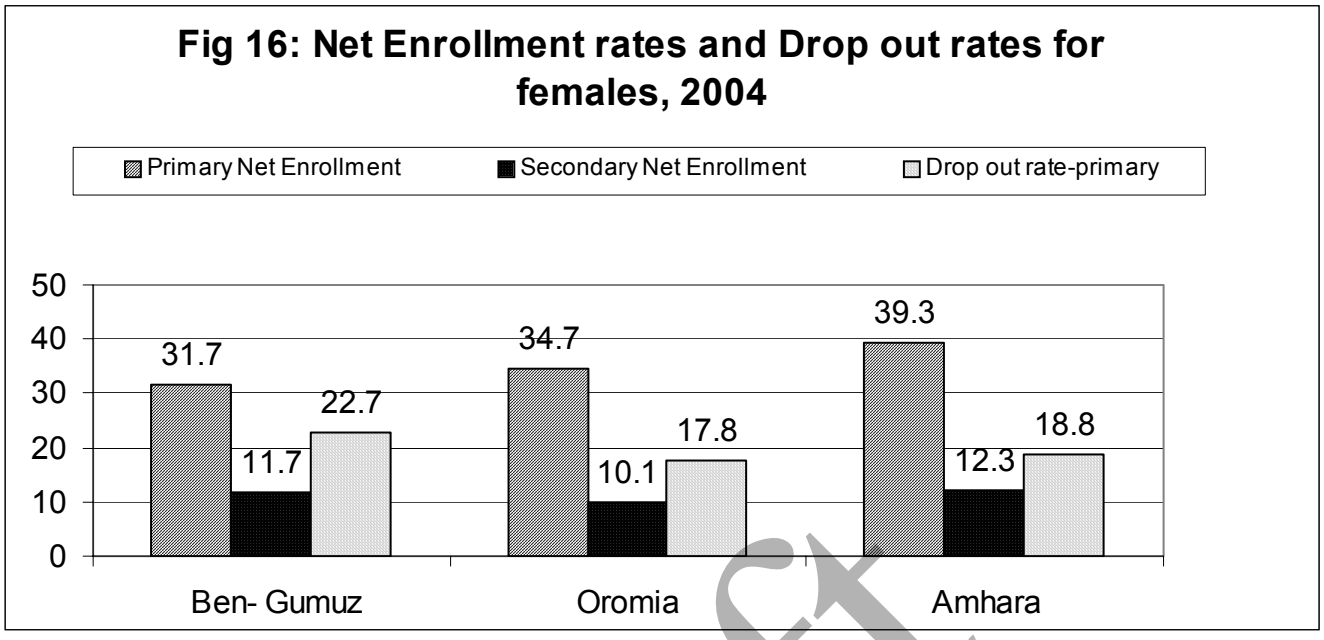
Literacy level is one of the indicators used to assess the level of educational development. A person is considered to be literate if he/she can read with understanding and write a short statement at least in one language of his choice. Fig 16**,** presents female literacy rate for the year 1994 and 2004. Although female literacy rate is getting improved in the three regions located in the Abbay basin during the period 1994 to 2004, it is still very low by any given standard. Compared to the males, females are very disadvantaged

in accessing educational opportunities. For instance, literacy rate for males and females is 22.5% and 49.5% respectively for Benishangul-Gumuz Region in 2004. Similar gap is also observed for Oromia and Amhara regions.



Female Enrollment Rates:

Net enrollment ratio at primary level is defined as the ratio of pupils of primary school age (i.e. 7-12 years of age) and is currently attending primary school divided by the total number of children in the 7-12 years of age group. In 2004, out of each 100 primary school age female population only 32 of them are attending primary school in Benishangul-Gumuz Region while the corresponding rate for Oromia Region is 35 and that of Amhara Region is 39 (Fig 16). Even though female enrollment ratio is improving from time to time and the gap between male and female enrollment is getting narrowed, the proportion of female dropouts in primary school is substantially higher in all of the three regions. This has an adverse effect on the gains to be obtained through increasing female enrollment rate.



Limited educational opportunities and the difficulties to go through all ladders of education without disruption have serious implications for the lives of women. Uneducated women are less likely to engage in gainful employment, tend to have large family size that increases the likelihood of reproductive health problem, and less exposed to new and modern ideas that are important in many aspects of life. It is, therefore, important to work hard not only towards increasing the extent of female enrollment rate but also decreasing its dropout rate.

Age at First Marriage and Birth:

Available literature indicate that early marriage among women have negative impact on their educational attainment, health and social status. In the Abbay basin, particularly in Amhara Region, women start getting married as early as 10 years of age. According to the results of Ethiopian 2000 DHS, median age at first marriage[5] is 16 years for women residing in Oromia and Benishangul-Gumuz regions while it is only 14 years for those living in Amhara region.

The 2000 Demographic and Health Survey also showed that fertility rate is the highest in the Basin. Total fertility rate, which is measured as the average number of children born to a woman in the reproductive age group (i.e. 15-49), 5.4 in Benishangul-Gumuz while it is 6.4 in Oromia and 5.9 in

[5] Median age at first marriage is computed only for women in the 25-49 age groups.

Amhara Regions. The high fertility rate in the area is also due to low contraceptive prevalence rate, which is 11% in Benishangul Gumuz but 14% and 16% in Oromia and Amhara regions.

Early marriage and low level of contraceptive use due to limited access to such services and the influence of traditional norms and values promoting large family size are the two major factors contributing towards high fertility rate. Large family size in the basin, therefore, has significant implications not only on the health of mothers and children but also on the status of women residing over there. Rapid population growth rate, which is the direct outcome of high fertility rate, has also significant impact on the ongoing and planned socio-economic development initiatives of the area.

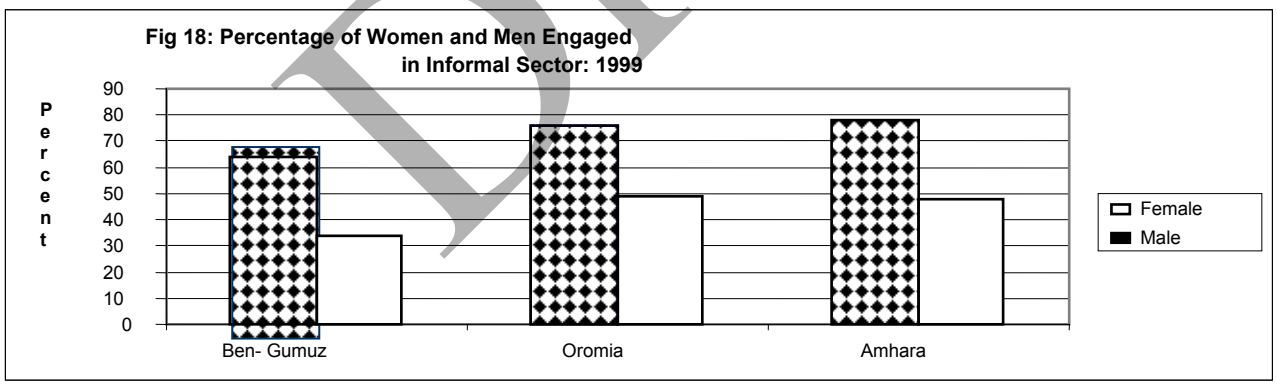
Female Employment Status:

Employment status indicates the relative power of decision-making regarding the work activity of people that are engaged in. Available data shows that the majority of working women are engaged in unpaid family works. Females serving as government employees in all of the three regions located in the Abbay basin are negligible (Fig 17).

In Benishangul-Gumuz Region, 73% of the workingwomen are engaged in unpaid family work, 22% are self-employed (working in their own firm or establishment regardless of the type of business) and 4% employers, members of cooperatives, employees of private organization etc. Only about 1% of them are engaged in works carried out in government offices that involves decision-making on policy matters, program development and evaluation, judiciary and administration, etc. Similar patterns of female employment are also observed for Oromia and Amhara regions, with relatively higher proportion of unpaid family workers in Amhara Region.

Formal/Informal Sector of Economy:

The informal sector forms part of the household sector that comprises household enterprises or unincorporated enterprises owned by households. The informal sector is usually defined irrespective of the kind of work place where the productive activities are carried out, the extent of fixed capital used, the duration of the enterprise and its operation as main or secondary activity of the owner. Persons engaged in subsistence farming and those who work in private households were, however, exempted from the analysis of such sector.



Source: CSA (1999) National Labour Force Survey

In Ethiopian situation, informal sector activities include works done in non-governmental, non-parasitatal and non–NGOs that have less than 10 workers, no license and is not keeping book of account. Accordingly, excluding activities of subsistence farming and domestic paid employment, 64% of working women from Benishangul-Gumuz, 76% of working women from Oromia Region, and 78% of working women from the Amhara Region are engaged in the informal sector (Fig 18). The corresponding

figure for men engaged in the informal sector ranges from 35% in Benshangul Gumuz to 48% in Amhara Region. This shows that most of the women in the regions are working in precariously insecure working condition. The gender gap in access to employment opportunities, in general, is an indicator of vulnerability among women in the Basin.

Annotated Bibliography

CSA(2000). Ethiopia Demographic and Health Survey 2000, Central Statistical Authority: Addis Ababa.
This report contains literacy status and highest level of schooling; median age at first marriage; proportion of women who suffered night blindness, nutritional status; knowledge, ever use and current use of contraceptives; Tetanus toxoid coverage among women with recent birth and vaccination coverage among children aged 12-23 months; distribution of immunized children and vitamin A administration at regional level the year 2000.

CSA(2004). Welfare Monitoring Survey, Statistical Report. Indicators on Living Standards, Accessibility, Household Assets, Food Security and HIV/AIDS. Statistical Bulletin 339-C, Central Statistical Authority, Addis Ababa, pp 170-188
This report contains distribution of households according to distance to nearest drinking water during dry and rainy seasons, use of facilities and reason for not using facilities by place of residence at regional level for the year 2004. Also the report presents the distribution of households by source of drinking water and type of toilet by place of residence at regional level.

Vulnerability and Poverty Situation in the Abbay River Basin

A good deal of poverty-focused research has been carried out in different parts of the Abbay River Basin. This preliminary review study revealed that there is an important repertoire of qualitative and quantitative data made available especially through household and community studies organized/sponsored by the Ethiopian Economic Association (EEA), Forum for Social Studies (FSS), Institute of Development research (IDR), and other NGO and donor-agencies.

According to some studies carried out on poverty situation in the area (Dessalegn, 2003; Yared, 2003), rural poverty has been growing in 'severity and magnitude for the last fifty years mainly due to population growth, lack of access to productive assets, crop failures and the like. As a result of this, the 'prevalence of poverty and destitution has reached "unacceptably high level in Ethiopia". According to the results of the Welfare and Monitoring Survey conducted by the Central Statistical Authority, 47.5% of all rural households are believed to be poor (CSA, 2004).

Poverty and destitution have also been well studied from livelihood perspective, in which both were understood as 'states of livelihood deprivation differing in degree'. For instance, Dessalegn (2003) examined the transition from poverty to destitution using data on frequency of famine, declining food consumption, and increasing malnutrition and associated health status. Based on the results of such a study, it is possible to argue that destitution as a 'down ward slide from poverty' has been increasing in all aspects of the Ethiopian population. Currently destitute are expected to constitutes no less than a third of the Ethiopian rural household population (ibid).

A policy study conducted in Wollo by the Institute of Development Studies (IDS, 2002) also revealed that the incidence of destitution has dramatically increased in the 1990s, while the number of households who were 'doing well' has decreased on the contrary. This agrees with other study findings (Aklilu and Dessalegn 2000) that indicated "an upward trend in poverty and a down ward trend in well being. The argument that states a substantial increase in the proportion of destitute households in Ethiopia has also been supported by other studies conducted by Devereux, Sharp and Yared (2002) and Ministry of Economic Development and Cooperation (2000).

Other studies revealed that the clan-based societies in the western part of the basin are also characterized by a wide spread poverty and vulnerability situation. According to the observations made by Fekadu (1988), the Gumuz are very poor, living a "hand to mouth" existence, and are "below the threshold" of peasants' subsistence economy. In describing this widespread nature of poverty distribution, Dessalegn (1988) used an expression that "If there is equality in Begga [Gumuz] society, it is equality in destitution".

Existing literature has also showed that vulnerability has been studied from different perspectives, including ecological and social vulnerability dimensions. A study conducted by Dessalegn (2003), for instance, reveled that peasant vulnerability is the outcome of a relentless ecological stress and large-scale degradation of environmental resources. According to him, peasants in Wollo and Wag Hamra remained to be one of the poorest in the country due to virulent and repeated famine and drought in the area. The people living in the area are identified as those who often suffer from sever food insecurity as ecological vulnerability continues to depress crop and livestock production.

Community and household studies conducted in Wag Hamra and Wello (Dessalegn 1988; IDS, 2002; Yared, 2003), as well as in North Shewa (Yared, 1995; Teferi, 1994) also revealed that rural poverty and destitution is increasing over time. It is in a position to put households of 'variable vulnerability' in crisis by eliminating their capacity to cope from time to time. According to Yared (2003), most of the households in Wello and Hag Hamra became destitute following severe or repeated crop failures due to natural causes. The situation is, however, a slightly different in North Shewa as households who have no or minimum land and those who lack active male labor constituted the larger proportion of households that have fallen into chronic/long-term poverty.

Similarly, Dessalegn (2003) argues that virulent famine has been the most important causal factor for household/community impoverishment and vulnerability in the major part of the Abay River Basin. According to him, most of the households in Wello and the Northeast did not yet recover from the 'abject poverty they were thrown into by the famine of mid- 1980s'. Substantiating this argument, he states: "The millions of peasants who become vulnerable to food shortage each year, … are in large measure, the victims of harvest failures" (ibid), which are induced by natural hazards. This implies that the increasing livelihood vulnerability among farming households appear to increase the extent of rural poverty, and the situation is in a position to continue affecting a large proportion of the population

residing in the area. In view of Mesfin (1984), peasant vulnerability is not necessarily a consequence of environmental hazard, rather it can also be an outcome of existing social and political framework. This is as Chambers (1989) indicates because people are not equally exposed to risks as they have socially differentiated capacities to cope with crises.

Available data on poverty and vulnerability also show that there is a strong link between poverty and gender, age as well as other characteristics of the population living in the Abbay River Basin. For instance, Yared (2002) indicates that female-headed households make up a large proportion of the poorest and most vulnerable households in rural areas of North Shewa and South Wello. He also argues that the living conditions and asset possession of young people is significantly lower as compared to their parents at same age in the past.

Furthermore, a study conducted by the Institute of Development Studies (2002) revealed that 13.8% of the households of the study area in Wollo are destitute, while a greater proportion of them belong to female-headed households and households headed by old men. These households are identified as victims of poverty mainly due to shortage of labor power to engage in productive activities.

Critical assessment of the situation in the Basin area has also showed that wealth and poverty are not distributed equally among various social groups. For instance, farmland is concentrated in the hands of the older generation than the young (CSA, 2003) and the plough farming system continued to marginalize females from the management of the land, even if their right to use the land is preserved upon divorce or death of their husbands. The chances of being poor or destitute are greater for certain segments of the population basically due to socio-economic differentials among residents of the area. It is, therefore, possible to argue that the likelihood to fall into poverty and the capability to avoid or move out of poverty varies according to someone's position in the prevailing social structure. It is, thus, important to identify as to who is poor and vulnerable in terms of gender, age, household type, occupation, ethnicity/religion and other socio-economic characteristics within the context of the river basin.

The relevant database required to understand the poverty and vulnerability situation of the Basin should, therefore, include:

- the form, extent and severity of poverty (local/national)
- contributing factors (social/ecological) to poverty and vulnerability

- deferential distribution of poverty (among house holds/communities and social groups)
- socio-economic status vulnerable groups
- local coping strategies of poverty
- current trends of poverty
- intervention in poverty reduction and the like.

The following annotated publications and research studies could also serve as important sources of data required to assess various aspects of poverty and vulnerability among population of the Abbay River Basin.

Annotated Bibliography

Mengistu Gonsamo (1998). Effects of Environmental Factors on Distribution of Vegetation on the Eastern Stops of South Wollo Highland.

MA Thesis in Geography, AAU. .

The study identifies and classifies the vegetation in Southern Wollo and relates distribution and occurrence of visitation with different environmental factors.

Solomon Tekalign (1998) Soil and Soil Management Practices in Tullube Catchments of Illubabor Highlands. MA, Thesis in Geography, AAU. .

The study assesses the characterization and Classification of soil and the identification of Soil management practices and their implication to soil degradation to full be catchments.

Mulualem Tesema (1998) Gender Bias Analysis of Primary School Text Book of Amhara Region. MA in Curriculum and Instruction, AAU. .

The study tries to investigate the contact of Newly developed primary school text book of Amhara Region Which have gender bias message.

Mesay Mulugeta (2000). The Study on Rural Household's Food Security Status: The Case of Kuyu Woreda Oromia Regional State. MA Thesis in Geography, AAU. .

The study is on rural households food security status in Kuyu Wereda

Moges Logaw (2000) Some Factors that Influence Attitude Toward Sex Education Among High School Female Students in South Wollo. MA. Thesis in Educational Psychology, AAU. .

The study highlights the problems of regional and local development in Oromia Administrative Zone of the Amhara Region.

Aklilu Amsalu (2000) A Study on Soil Erosion, Land Degradation and Conservation in the Hulet Wenz Catchment, Andit Tid Area, North Shoa. MA-Thesis in Geography, AAU. .

The study investigates the relationships existing among landforms the process of socio soil erosion and degradation and to evaluate the existing conservation.

Ali Hassen (2000). Female Headed Households Vulnerability and their Participation in Employment Generation Skills: A Case Study of Two Peasant Association in Mekdela Woreda, South Wello. MA-Thesis in Regional and Local Development Studies, AAU - IES Library.

The study attempts to explain the socio-economic situation of female headed households in South Wello.

Amsalu Abushe (2001). Effects of School-Parental Attitudes on Psycho Social Adjustment of High School Adolescents with Visual Disabilities: A Case of Some Selected Western Shoa High School. [M.A Thesis in Special Needs Education).

The study examines the impact of school parental attitudes on blind adolescents psychosocial adjustment status.

Aschalew Gemechu (2000). Determinants of the Nutritional Status of Children in Amhara Region: The Case of Misrak Gojjam and Semen Wello Zones. M.A in Demography, AAU. .

The study estimates the levels of child malnutrition and identifies the different factors associated with the chronic malnutrition among children.

Eshetu Bekele (2000). The Underlying Cause of Household Food Insecurity and Copying Strategies: The Case of Legambo Woreda, South Wollo Zone, Amhara Region. M.A in Regional and Local Development Studies, AAU. .

The study reports both theoretical and empirical findings on the underlying cause of food insecurity and household coping strategies in Legambo worda.

Fantaye Amsalu (2000). The Role of Married Women in Household Food Security: The Case of Kersa Kondaltiti Woreda, West Shewa. MA in Regional and Local Development Studies, AAU. .

The study investigates the role of the local people in managing biological diversity through agricultural activities.

Zewde Shetaie (1999*)* The Study on Agricultural Production, Environmental Degradation and Carrying Capacity in Debay Tilqtgin Wereda, East Gojjam. MA in Regional and Local Development, AAU. .

The study tries to show the direct consequence of population pressure on resource, especially on issue related to sustainability of environment and food production.

Hirut Bekele (2000). Natural Resource Degradation and the Predicament of Rural Woman: The case of Bugna Wereda, North Wollo. MA. Thesis in Regional and Local Development Studies, AAU. .

The study examines the on going Natural Resource degradation and its implication in rural Gelesot (lowland) and Telfetit (highland) kebeles in Bugna Wereda.

Mekasha Belete (2000) Some Factors Affecting Female Pupils' Participation and Academic Performance in Primary Education in Amhara. MA in Curriculum and Instruction, AAU. .

The thesis dealt with factors that influence the participation and academic performance of primary school girls in Amhara Region.

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The study examines the socio-economic and demographic situation and female-headed household bate in urban and rural in comparative way.

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Amanuel Abraham (2002) Demographic and Social Factors that Influence Educational Participation of Girls in Primary School in Assosa, Town, Benishangul Gumuz. MA in Demography AAU.

Yohannes Dibaba (2003*)* Sexual Violence against Female Adolescent in Jimma Town. MA in Demography AAU.

Abraham Molla (2004*)* Factors Affecting Reproductive Right of Women in Enebssie Sarr Midir District, Amhara Region. MA thesis in Demography. AAU.

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Daniel Tesfaye (2002) Household Livelihood Strategies in South Wollo: The Case of Dankakel PA, Ambasel Wereda. MA Thesis in Social Anthropology, AAU.

Donal Crummey (1997). Deforestation in Wollo: Process or Illusion. IDR Proceeding No. 17,1997.

Seid Mohammed and Binyam G/Egziaber (1993). A cross-sectional study of Anthropometric Measurements of Women in Reproductive Age Group Attending Family Planning Clinics in Jimma Town. Ethiopian Journal of Health Development 7(2): 120.

The study shows that women have a good nutritional status in general, with a promising possibility of having children with better birth weight. There is also a need for researches on total population on women nutritional status in Jimma town.

Louise Pilote, George Olwit, G/Sillassie Okubagzi and Charles Carson (1991). Community Based Nutritional Survey: Garuke Jimnte peasants' Association (Illubabor Jimma Zone) Southern Ethiopia. Ethiopian Journal of Health Research 5 (1): 25-28

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The finding indicates a life time risk of maternal mortality ratio of 560/100,000 live births which the community experience high that is compounded by high fertility as reflected by total fertility rate of 7.6 (information gap and lack of support planning).

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Delil Hassen (2001) The Determinants of Off-farm Employment and Its Role in Rural Poverty Alleviation: The Case of Oromia Regional State. M.A in Economic Policy Analysis, AAU. .

The study explains that agricultural sector alone cannot ensure sufficient employment or income for the rural population.

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Baulch, B. 1987. Entitlements and the Wollo Famine of 1982-1985. Disasters 11 (3): 195-204.

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Abdussamad H. Ahmed (1987]. Peasant Condition in Gojjam During the Great famine (1888-1892). Journal of Ethiopia Studies, Vol xx, p.1-18. .

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……. 2003a Poverty and Agricultural Evolution. In Dessalegn Rahmato (eds). Some Aspects of Poverty in Ethiopia. The selected paper of FSS studies in poverty No1 (FSS Library)

The article state that Ethiopia agricultural process is declining for four decades and confined unabated and some of the structurally elements of this deeming have been examine where agriculture has virtually exhausted its potential x is in capable of in its present from serving as engine of growth and development.

Yared Amare (2002). Rural poverty in Ethiopia: Household Case Studies from North Shewa. FSS Discussion Paper No 9. Forum for Social Studies, Addis Ababa.

The paper has discussed the relationship between poverty and adductive assets which in contrast to measurements of in one, are more realistic portrayal of the current and sustained economic status of peasant households including as a source of food, animal feed, surplus for investment in assets, base of household independence, access to markets, social legitimacy and entitlement to various institutions by state.

The Social Organization of the Basin Population

As already mentioned the Abay River Basin includes some parts of Oromia, Amhara, and almost the whole of Benishangul-Gumuz Regional States that are established on the basis of ethnic federalism [**source**]. Thus, the population residing the River Basin are expected to be diverse in terms of socio-cultural setting, which in turn is likely to influence the nature and forms of social organization among the basin population at the grass-root level.

Social organization in this review refers to the 'patterning of human interdependence in a given society through the interactions of its members (Schultz and Levenda, 1987). However, it must be noted that there is no definite blue print for social organization that all societies are obliged to follow same principles or adhere to similar customs and traditions. Accordingly, the way people in the basin organize their lives could take different forms as long as the socio-cultural and ecological setting of each community has the power to determine the way they govern their day-to-day lives.

Available evidences indicate that there are two main forms of social organization among the ethnically diversified population of the Abbay River Basin. The Nilo-Saharan speaking people that live in peripheral parts of Amhara and Oromia but the Whole of the Benishangul-Gumz Regional States maintaining kinship based social organization; that is, lineage or clan system. Unlike this, the Oromo and Amhara, as well as other minority groups maintain non-kinship form of social organization in which a patron-client rather than kinship (decent) rules play an important role in their social interactions.

Segementary lineage system is the governing principle according to which the social life of the Gumuz (Begga) society is organized (Desalegn, 1988). Thus, kinship ties being important rules of organization while clans are the corporate owner of the land and other natural resources in the area. The system provides an equal access of usufruct to each and every member of the society. Due to the strong influence of the clan system, the Begga (Gumuz) society practice marriage according to the rule of exogamy that involves exchange of wives between contracting parties of different clans.

Another study conducted by Fecadu (1988) also indicates that the socio-political organization of the "Shankillas" is based on 'domestic group of settlement" that usually consist of 30 to 100 kin group

households. According to him, a group of people living in the current Benishangul Gumuz Regional States are one of 'the least acculturated' ethnic group in the country, apparently due to the ideology of food taboo and pollution maintained by the neighboring peasant society against them.

On the basis of studies conducted by Hoben (1973, 2001), Baur (1977), Wissleder (1965) and Pankhrhust (1992), the agro pastoralists or shifting cultivator people have different social organization as compared to the peasant society elsewhere in the baisn, where independent households serve as the basic units of its social organization. For instance, Hoben (2001) specifically indicated that households are the basic units of "social and agro-economic organization" between the Amhara and Tigrean in which patron-client, rather than kinship ties is maintained as the dominant form of social interaction.

Information which is holistic in perspective, including the economic and socio cultural life structure of the population at community, region and/or across regional levels is needed to deeply understand the social organization, as well as associated problems and opportunities of a given population. As available data on social organization of the basin population is scanty, there is a need to have quality data on:

1. The nature and forms of indigenous/local institutions and organizations including:
    - Marriage and kinship systems
    - World views, religious and belief systems
    - Core values, customs, social norms
    - Livelihood strategies
    - Mutual help arrangements /reciprocal labor and asset sharing
    - Life crisis associations.
    - Saving and credit associations
    - Social security systems etc.
2. The structured inter group interaction among:
    - Different ethnic and religious groups as well as sub-groups,
    - Despised occupational groups, and
    - Gender relationships are extremely required.

The following annotated inventory of existing publications and research studies could also provide data on the social organization and structure of the Abbay River Basin to some extent.

Annotated Bibliography

Demeke Eshete (1998*)* Rural-urban Linkages in East and North Showa Zones. MA in Geography, AAU.

The study examines the nature and determinants of rural-urban linkages between small towns and their hinterland.

Bartels, Lambort (1970). Studies of the (Oromo) in Wolloga: Thier Own views of the Past. Journal of Ethiopia Studies, Vol. VIII. No. 1 pp.135-160. .

It is an anthropological/ethnographic study of the Oromo of Wollega.

Mesfin Woldesellassie (1995*)* The Role of Ten Small Market Towns in Integrating the Rural-urban Economy: A Case Study in Western Shoa Zone, Specially in Ambo, Chelca and Bako-Tibe Woredes. MA Thesis in Geography, AAU

The study examines the role of ten small market town in integrating the rural-urban economy in Western Shewa Zone.

Fekadu Begna (1990) Land and the Peasantly in Northern Wollo 1941-1974. Yajju, Rayya and Qobbo Awraja. MA Thesis in History, AAU.

The study is about socio-economic and political development in Yajju, Rayya and Qobbo.

Fekadu Gedamu. (1988*)* Socio-economic System of the Shanqilla and the New Resettlement Program in Metekel: Conflict and/or Co-operation. In Proceedings of the Workshop on Famine Experience and Settlmeent in Ethiopia held at Addis Ababa, 29-30 December, 1988. Edited by Tegegne Teka. Addis Ababa: IDR Procedding No 10.

The paper raises the possible conflict and (or cooperation in the process of interaction and indigenous people and the new settler, taking the “Shanqilla" socio-economic background into account.

Conflict and Conflict Management in Abbay River Basin

Conflicts or disputes can be a means of exploring the relational dynamics in any given community. They can be used to analyze the perception of power and power relations expressed in conflicts involving individuals, households, and groups in a social context We can also understand group differences through their interactions revealed in conflicts, and in the process and out come of disputes and their resolutions.

In general terms, conflicts enable us to understand the nature of local dispute factors as well as identify the most important indigenous institutions involved in conflict resolution; that is, the norms, rules and procedures employed in customary dispute resolution. Further more, conflict situations enable us to explore the dynamic interaction (contradiction and cooperation) between customary (informal) and government (formal) institutions involved in dispute resolution/prevention.

In order to understand the dynamics of conflicts and coping strategies among the basin area societies, it is important to identify the main types and levels of disputes and the corresponding customary institutions involved in conflict resolutions. It is thus equally important to have detailed data about the process of how inter-group conflicts arise, develop, lead to crisis and are resolved in the given context, thereby understand the local perception of value difference.

Diversity is one of the basin population's outstanding characteristics in terms of ethnicity, socio cultural value system, livelihood strategy, and the natural environment. In other words, it represents a wide variety of social and natural settings, which determines the nature and control of conflicts occurring between various groups.

Sub-group disputes within communities and inter-community as well as inter-ethnic disputes have been the most common conflicts occurring among the basin societies. Accordingly, multiples of contributing factors were involved in triggering and aggravating such inter-group conflicts. The most common inter-community conflicts were between farming communities (farmer-farmer), farming and pastoral/agro-pastoral societies (farmer-herders/ shifting cultivators), and pastoral communities (herder-herder) (Tesfaye, 2003).

To be specific, the basin area of Northeast Wallaga, West Gojjam and Benishangul Gumuz consists of multi-cultural and multi-ethnic societies. Diversity is often considered to be a source of conflict in Africa (Laweler, 1975). This ethnic and cultural diversity thus defines the nature of conflicts and coping strategies employed over there. Historically, there were persistent conflicts between the Amhara, Oromo, Agew, and Shinasha peasant communities on the one hand, and the Gumuz and other ethnic groups (Tsega, 2002). In addition to this, the inter-ethnic conflict between migrant settler communities and indigenous peoples has become more frequent since recent years.

In general, a multi-layer inter-group conflict and power relations appear to characterize this part of the basin. On the one hand, the indigenous Gumuz used to enter into conflict with neighboring peasant communities in Oromia and Amhara regions. They also have frequent conflicts with migrant settlers within Benishangul Gumuz. Conflicts between the peasant communities and this agro-pastoralist minority usually arise due to value differences and/or competition over natural resources. Especially, culture-induced disputes were common as the Gumuz were historically despised, discriminated and enslaved by their neighbors. The Gumuz culture also requires them to kill to marry; and this custom of 'killing and feuds against outsiders' used to trigger inter-group conflict (Wold-Slassie, 19997; Dessalegn, 1988; Fekadu, 1998).

Inter-ethnic feuding and communal violence is part of the Gumuz custom as vengeance is done against both the alleged offender and any one of his male relatives (Dessalegn, 1991). Abduction of women for marriage, close clan adultery and evil eye were also said to be the most common sources of conflicts in the Gumuz society.

In the Oromya part of the basin (Wallaga, Illubabor), disputes also arise between indigenous Oromo and the settler Amhara communities. This conflict constitutes the main form of inter-group conflict in the basin (Assefa 1999, 2002; Chernet 1988). Here, competition over scarce resource alone cannot explain inter-community conflicts since it some times involved armed violence. Rather, ethnic extremism, political policies of local and national governments were among the contributing factors (Tsega 2002; Asnake 2004). Generally speaking, ethnic (to preserve own culture and identity) and resource based conflicts are common in the basin area.

Conflict management is the theory and practice of peaceful resolution of conflicts. (Woodhouse, 1996). Conflicts are part of the social life and custom usually aggravate these conflicts. Custom could also restrain conflicts from destroying social order at large (Gluckman, 1973).

Accordingly the basin societies have a range of customarily mechanisms of resolution for each of the various causes of conflicts. Elders' councils and the 'Mitchu' institution are specifically used in conflict resolution/prevention in the Western part of the Basin (**source**). 'Mitchu' is a system through which cross-ethnic friendship is established. The 'Mitchu' institution is believed to have been employed first by the Oromo to assimilate the Shinasha and Gumuz (Tsega, 2002). In addition to the most widely used 'Mitchu' institution, elders' councils and the 'Gafa' – a magico-religious authority (witch doctors) – are also commonly involved in conflict reconciliation in the Gumuz society.

Annotated Bibliography

Mengistu Wube (1995). Resource Use and Conflict along the Blue Nile River Basin: The Need for New Conservation Sustainability Measures, Uppsalla University, Sweden.

The study, by taking the three major countries of the Blue Nile: Ethiopia, Egypt and Sudan in to account, suggests about the need of water resource development project to be implemented in Ethiopia through conservation based sustainability measures. More over, the author suggested that political stability, understanding and environmental rehabilitation measures taken by an countries of the Nile Valley are urgently needed it water resource are to be utilized on sustainable basis by Nile Regime countries.

Schwab, P. (1970). Rebellion in Gojjam Province, Ethiopia. Canadian Journal of African Studies 4 (2): 249-25.

Tesemma Ta'a (1984). The Basis for Political Contradictions in Wollega: The Par Land Apportionment Act of 1910 and Its Consequences. Northeast African Studies 6 (1-2): 179-197.

Yohannes Berhanu (2001) Conflict and Conflict Resolution among the Chihera (Micro-Level Studies from Six Village in North Gondor). MA in Social Anthropology, AAU. .

The study reveals the major institution that deals with conflict resolution. If also argues that conflict resolution in based on public opinion and cultural consensuses.

Assefa Tolera (1995) Interethnic Integration and Conflict: The Case of Indigenous Oromo and Amhara Settler in Aoroo Alem, Kiramu Area, North Eastern Wallega. MA in Social Anthropology, AAU.

The study deals with the Inter-ethnic relation and identifies the factors leading to self initiated migration and settlement and assesses the area of nitration in b/n the Oromo and the Amhara.

Dessalegh Rahmato, Resettlement and Indigenous People: The Case of Metekel. In Proceedings of the Workshop on Famine Experience and Settlmeent in Ethiopia held at Addis Ababa, 29-30 December, 1988. Edited by Tegegne Teka. Addis Ababa: IDR Procedding No 10. [IDR Library].

The paper examines the resettlement program in Metekel and its likely consequences on indigenous "Shanqella" population.

Demeke Argaw (2005). Co-operation and Conflict management Mechanism among Peoples of Kalu, North East of Ethiopia. MA Thesis Social Anthropology, AAU.

Demissie Guddissa (2005). Social Network, Conflict and Indigenous Conflict Resolution. The case of the Derba Oromo of North Shewa. MA Thesis in Social Anthropology, AAU.

Alula Pankurest (2002). Surviving in Wellega: The Qetu Experience. In Remapping of Ethiopia: Socialism and After.

The study explores the different way in which the settler have responded to change in production and exchange since the time and their arrival from Wollo to Wellega. It also identifies how the situation changed notably with the respect to the second generation and to the current language policy.

Triulzi, Alessandro. Center Periphery Relations in Ethiopian Studies: Reflections on Ten Years of Research on Wellega History, 7th International Conference. P.359-363

The study revealed to Anthropological and historical researches to focus on the periphery areas of the country with detailed and exhibiting way by the multi disciplinary research method integration in western part of the country.

W/Sillassie Abbute (2002). Gumuz and Highland Resetters: Differing Strategies of Livelihood and Ethnic Relations in Metekel, North-Western Ethiopia. PhD Dissertation, University of Gottingen (Germany)

Berihun Mebrate (1996) Spontaneous settlement and inter ethnic relation in Matakal, North-West Ethiopia. MA in Social Anthropology, AAU- [SOSA Library].

The study underlines the nature and the process of population movement and the impact they have on the receiving society focusing on the spontaneous settler of Metekel from Wollo, Gondor and Gojjam.

Abdurouf Abdurahman (2005). Resettlement and the Dynamic of Social Integration in Chewake Resetlement in IlU Aba Bora Zone. MA Thesis in Social Anthropology, AAU.

3.8 Poverty Ranking of Communities

Though there are a number of measurements of poverty, the concept of poverty remained loaded with biological and economic connotations for a longer period of time. Some biologists define poverty as the shortfall in specific amounts of calorie intake per day **(source)** while economists try to explain poverty as the shortfall in accessing income; i.e., less than a threshold amount of money. In Ethiopia, too, there is still an ongoing debate on determining the threshold income for poverty line. The biological concept used to define poverty is, however, is used to indicate the level of poverty in most of the regions as it is highly concerned with natural phenomenon.

Vulnerability Indicators:

Vulnerability can be described using three elements; namely, exposure, sensitivity and coping capacity **(IPPC, 2001, Turner et al., 2003).** Exposure can be interpreted as the direct danger, i.e., the stressor, while sensitivity describes the human environmental conditions that can either worsen the hazard or trigger and impact. The coping capacity, on the other hand, represents the potential to implement adaptation measures so as to avert the potential impacts.

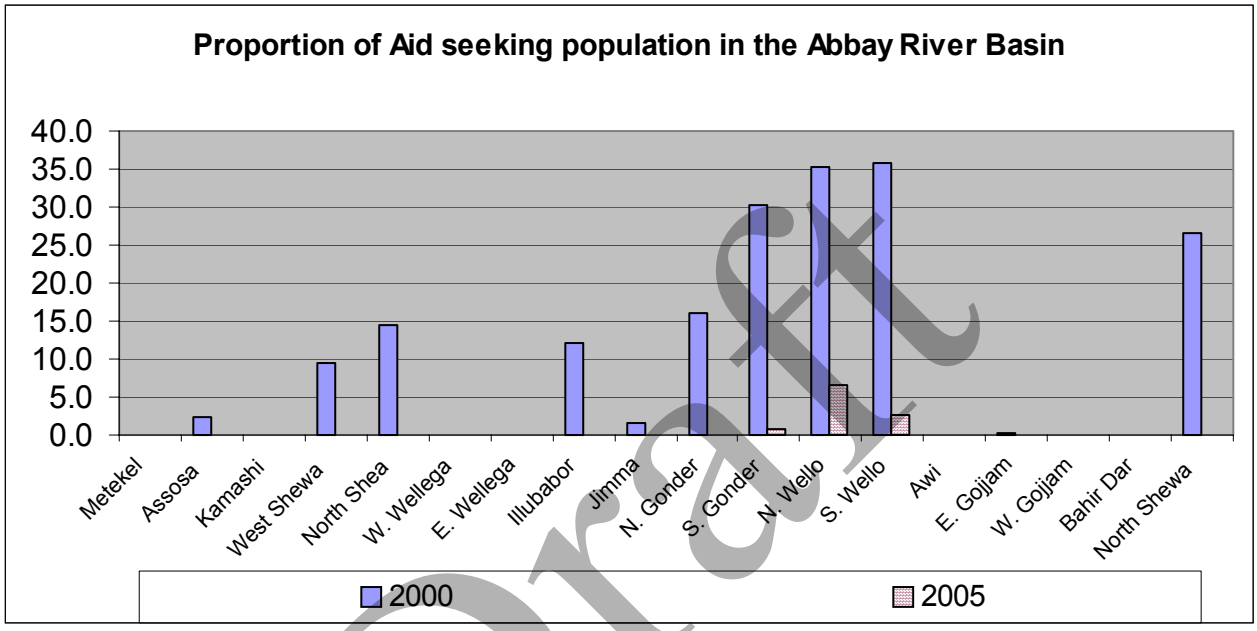
The vulnerability framework is known as 'indicator of framework' while the potential impact and coping capacity are labeled as 'composite indicators'. Indicators and indices could, therefore, be developed to describe the extent of individual vulnerability. Though existing data in Ethiopia in general and that of the Abbay River basin in particular do not allow developing any of the vulnerability indicators, it is possible to use proxy/separate indicators that could to indicate the extent of vulnerability in the Project area.

Food Security And The Demand For Food Aid:

According to the 2004 Welfare Monitoring survey, 22.8%, 36.3% and 30.5% of households respectively in the Benishangul-Gumuz, Oromiya and Amhara regions were suffering from food shortage over the last 12 months prior to the survey date. Unpublished data from DPPC (2000) also showed that quite large proportion of rural population in Oromiya **(12.6%)** and Amhara (26.4%) regions were reported to require food aid. On the contrary, a small proportion of (2.1%) of the population in Benishangul-Gumuz Region demanded food aid during the same year (2000). This implies that the demand for food among rural

population is a direct reflection of population pressure that could be manifested through population density in KM^2 in each of the administrative zones **(see also „„)**. More importantly, the decline for food aid in 2005, the year known for good harvest due to sufficient rain, is an indicator of the impact of climate on production of rain-fed agriculture.

Fig. 19



As shown in Fig 19, the demand for food is slightly higher in administrative zones located in the Amhara Region, particularly South and North Wollo as well as North Shewa that were repeatedly heated by drought and famine (Markos, 1997).

Human Development Index:

Human Development Index (HDI) is one of the most popular and good measures of vulnerability at the moment. The index is developed by considering three variables; namely, health, education and life expectancy. Unfortunately, this index is not available for any of the regions included in the Basin. The fact that life expectancy at birth is nearly equal, ranging between 47 years in Bensihangul Gumuz to 51 years in Amahra Region, nonetheless, shows that there is slight variation in the extent of vulnerability among the population living in the Basin.

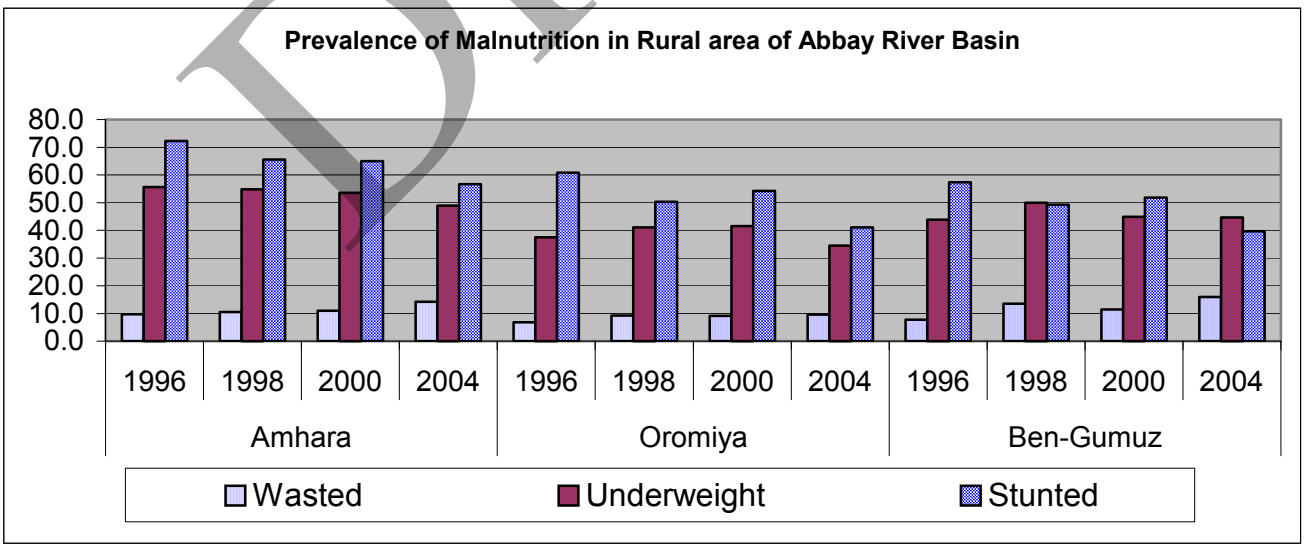
Restriction and Access to Resources:

As clearly indicated in the works of David and De Frain (2000), access and possession of resources are indicators of wealth and decision-making power. Almost equal percentage (i.e., a third) of the agricultural landholders in Benishangul-Gumuz, Oromiya and Amhara regions, respectively, own less than half a hectare of farmland. Higher proportion of holders who own less than half hectare is, however, found in North and South Wollo of the Amhara Region, where the demand for food aid is relatively higher (see Fig 19).

Nutritional Status:

Nutritional status is also among the development indicators of a given country's economy. The proportion of child malnutrition is often taken as a measurement of the socio-economic status. Verifying this argument, the Central Statistical Authority (2004: 39) indicates, "Children are chosen for the purpose of anthropometric analysis for they are more susceptible to nutritional deficiencies, which could be an indication of lower welfare status of households". Based on the results of the Welfare Monitoring Survey findings located in the rural parts of the basin area, the proportion of wasted[6], stunted[7] and under-weight[8] is provided in Fig 20.

Fig. 20



[6] *Low Weight-for-height*
[7] *Low Height-for-age*
[8] *Low Weight-for-age*

Accordingly, all regions have higher percentage of stunted and underweight children though there is variation between regions. The lowest stunted proportion is observed in Benishangul-Gumuz (41.3% in 2000 and 39.7% in 2005) while the highest is observed in Amhara Region (57.0% and 56.6% in same years) indicating that vulnerability among children is the highest in the Amhara region.

Annotated Bibliography

CSA(2000). Ethiopia Demographic and Health Survey 2000, Central Statistical Authority: Addis Ababa.
This report contains anthropometrics measurements of women and children between age 12-23 months at regional level for the year 2000.

CSA(1996). Report on the 1996 Welfare Monitoring Survey. Statistical Bulletin 205, Central Statistical Authority, Addis Ababa, pp 82-87
This report has distribution of households according to prevalence of stunting and under weight for rural parts at regional level for the year 1996.

CSA(2000). Report on the 2000 Welfare Monitoring Survey, Volume I Statistical Bulletin 259, Central Statistical Authority, Addis Ababa. pp 287-293
This report explains prevalence of wasting and underweight of children between age 12-23 months at regional and zonal levels and selected urban centers for the year 2000

Location	% of Holders that own less than half a hectare farm land	People with daily calorie intake < 1500	Child Malnutrition (%)						% of rural population affected by drought* (2000)	% of HHDs who suffered from food shortage over the 12 months period (2004)	% of rural population requiring food aid	
			Wasted		Stunted		Under-weight					
			2000	2005	2000	2005	2000	2005			2000	2005
Ben Gumuz	**30.0**		**14.2**	**16.0**	**41.3**	**39.7**	**42.3**	**44.6**	**4.3**	**22.8**	**2.1**	**0.0**
Metekel	27.5								0.0		0.0	0.0
Assosa	32.9								5.2		2.5	0.0
Kamashi	30.0								0.0		0.0	0.0
Oromia	**30.1**		**10.4**	**9.6**	**47.2**	**41.0**	**42.4**	**34.4**	**17.8**	**36.3**	**12.6**	**8.4**
West Shewa	21.9								14.2		9.6	0.0
North Shea	18.7								28.6		14.6	0.0
W. Wellega	26.2								0.0		0.0	0.0
E. Wellega	24.1								0.0		0.0	0.0
Illubabor	23.9								13.7		12.2	0.0
Jimma	29.7								2.8		1.6	0.0
Amhara	**29.6**		**9.5**	**14.2**	**57.0**	**56.6**	**51.8**	**48.9**	**32.3**	**30.5**	**26.4**	**1.2**
N. Gonder	25.2								19.1		16.1	0.0
S. Gonder	26.8								40.2		30.2	0.8
N. Wello	43.9								36.6		35.3	6.7
S. Wello	36.4								42.8		35.7	2.6
Awi	26.2								0.0		0.0	0.0
E. Gojjam	24.1								5.3		0.2	0.0
W. Gojjam	26.0								0.0		0.0	0.0
Bahir Dar	n.a*								---		---	---
North Shewa	24.2								---		26.5	0.0

*Unpublished data obtained from DPPC files.

Table 7 Employment Characteristics and Type of Holding in Rural Areas of Abbay River Basin, 2001

Location	Rural						
	Type of Holding			Type of occupation			% Under-employment*
	Crop only Farming (%)	Live Stock only (%)	Cop and Livestock (%)	Fully Agricultural	Partially Agricultural	Non-Agricultural	
Ben-Gumuz	**23.6**	**6.6**	**69.8**	**75.9**	**22.5**	**1.6**	**33.2**
Metekel	**19.4**	**8.4**	**72.2**	78.2	20.1	1.8	
Assosa	**26.2**	**5.7**	**68.1**	73.7	24.7	1.7	
Kamashi	**30.3**	**1.2**	**68.5**	76.4	22.3	1.3	
Oromia	**18.4**	**6.2**	**75.4**	**79.2**	**18.8**	**2.0**	**48.8**
West Shewa	**16.8**	**6.4**	**76.8**	70.1	26.9	3.0	
North Shewa	**16.3**	**8.1**	**75.6**	81.6	15.5	2.9	
West Wellega	**34.3**	**6.4**	**59.3**	78.1	19.9	2.0	
East Wellega	**20.0**	**6.9**	**73.1**	68.1	29.4	2.5	
Illubabor	**22.5**	**8.5**	**69.0**	86.8	10.3	3.0	
Jimma	**17.8**	**5.9**	**76.8**	68.9	28.5	2.6	
Amhara	**20.2**	**2.7**	**77.1**	**85.9**	**13.3**	**3.8**	**41.0**
N. Gonder	17.1	2.9	80.0	**72.0**	**26.2**	**1.8**	
S. Gonder	18.7	2.8	78.52	**85.5**	**13.5**	**1.0**	
N. Wello	22.3	2.5	75.2	64.1	34.8	1.0	
S. Wello	18.0	1.8	80.2	97.1	2.3	0.6	
Agew	**17.0**	**4.8**	**78.2**	**93.9**	**5.0**	**1.1**	
E. Gojjam	**23.7**	**3.3**	**73.0**	**86.8**	**11.9**	**1.3**	
W. Gojjam	**20.4**	**3.2**	**76.5**	**93.8**	**5.5**	**0.7**	
Bahir Dar	**12.4**	**-**	**87.6**	**	**	**	
North Shewa	**23.2**	**1.7**	**75.1**	87.8	10.8	1.3	

- *Non-agricultural activities refer to non-farm and related works.*
- ***Underemployment:*** *shows the proportion of employed persons who didn't work additional hours or work while they were ready and interested to engage, during the last seven days*

Type of Activity and unemployment rate for urban Parts of Abbay River Basin population aged 10 years and over

Location	Urban								
	Type of Activity					Unemployment Rate			
	Manu-facturing	Services	Agri.	Public Admin	Others	1994	1999	2003	2004
Benishangul Gumuz	**14.9**	**48.9**	**21.6**	**12.3**	**2.3**	**7.2**	**18.8**	**15.1**	**12.2**
Metekel						5.5			
Assosa						9.5			
Kamashi						---			
Oromia	**15.8**	**58.3**	**17.8**	**4.9**	**3.2**	**15.4**	**19.0**	**24.3**	**21.5**
West Shewa	17.1	57	14.5	5.7	5.6	14.8	20.1		
North Shewa	16	64.2	11.2	5.6	3	8.8	18.4		
West Wellega	11.4	63	18.2	5.5	1.9	5.9	12.9		
East Wellega	15.7	59.4	15.1	6.9	3	10.2	22.8		
Illubabor	13.5	59.6	15.8	9.2	1.9	6.6	16.9		
Jimma	13.9	68.3	7.1	6.6	4.1	15.6	21.1		
Amhara	**20.5**	**56.7**	**11.4**	**6**	**5.5**	**11.8**	**22.5**	**21.6**	**18.6**
N. Gonder	22.6	61	5.3	5.8	5.3	12.2	26.1		
S. Gonder	22.7	61.2	6.2	4.7	5.1	6	18.5		
N. Wello	14.6	44.8	23.6	8.7	7.7	8.5	25.8		
S. Wello	21.1	56.4	8.9	7.5	6.2	17	25.9		
Awi	28.5	32.1	8.4	4.4	4.9	9	15.2		
E. Gojjam	19.4	66.6	5.2	4.3	4.4	10.5	15.4		
W. Gojjam	26.3	51.8	10.6	4.6	6.7	9.6	18.2		
Bahir Dar						16.2			
North Shewa	14.6	54.6	20.4	6.5	3.8	11.9	23.8		

VII. Government and Non-Government Development Programs/Projects

I. Government Sponsored Programs/Projects

The Ethiopian government involves in different development projects and programs to change the living standard of the rural population that includes expansion of agricultural extension programs, protecting the environment/rehabilitation programs, resettlement programs and water related development projects.

a. Agricultural Extension Program

The current government has been implementing agricultural extension program as a means to enhance rural development through its agricultural development led industries (ADLI) strategy. Accordingly, efforts are being made to help farming households to increase agricultural productivity and their income by promoting the use of fertilizers, improved seeds and pesticide. However, the program, especially application of these productive inputs has had some adverse effect on both the environment and the farmers' way of life. Agricultural inputs such as chemical fertilizers, pesticides and hybrid seeds contribute to "soil degradation and the loss of plant diversity" (UN Environment Program, 1995). Farmers also used to get into debts when their high input grown crops failed due to lake of rain or pests/diseases.

b. Environmental Protection /Rehabilitation Programs

The government is also engaged in reforestation and soil conservation programs

c. Resettlement Program

In the history of Ethiopia, spontaneous resettlement was common during the imperial times while forced resettlement become the policy of the Derg regime (1974-1991). The current government has also formulated voluntary resentment program as part of its food security policy.

All of these state sponsored resettlement programs have had certain adverse effects on the environment through depletion of natural resources; and the livelihood of the people by increasing inter-group conflicts. The basin area, being a destination for new immigrants and home for the indigenous settlers, the resettlement programs has negatively affected both the migrant settlers and the host communities. The migrant population has had health problems due to environmentally induced diseases such as malaria, and social insecurity due to the resistance and hostility from the host communities. The latter problem recently led to political exclusion and even threat of armed violence and eviction. The indigenous communities, particularly those living in Benishangul Gumuz and Western part of Oromia Region, specifically in Illubabor as well as East and West Wellega administrative zones, also faced the threat of losing their land and other resources. The extent of suffrage both for new migrants and indigenous people and the adverse effect of the past and current resettlement programs are nearly the same as long as its impact on environment and the inter-ethnic conflict between the migrant and host communities are concerned.

d. Water Development Related Projects

The hydro-power projects run by the Federal Government, especially the Gibe project, have had a multidimensional adverse effect on the local communities. As indicated by Kassahun ( ), displaced persons were emotionally, socially and economically affected as they had to abandon their long established home and suffered from sever food shortages, lack of grazing land, and marginalization by the host communities among whom they were relocated.

The Tiss Abay hydropower project is also said to have affected the scenic waterfall by reducing the water that "Smokes". There is a strong fear among the general public that the ongoing project is likely to affect the extent of tourism in the area.

Small dams, irrigation scheme projects and the water harvesting programs have also produced unintended consequences against both the environment and human health. Available evidences suggest that experts and farmers commonly complain that irrigation and dam structures and harvested water reservoirs have become favorable points for malaria breeding. If it is not possible to take measures

against the wide-spread of malaria, the health hazards of the on-going projects through construction of small dams and water reservoirs would be worst.

II. NGO/Donor Sponsored Projects

Local and international NGOs have been working in various parts of the basin. Most of them are engaged in credit and saving scheme, food aid program, environmental rehabilitation programs, development of drinking water projects and building of infrastructure. However, the dependency syndrome has been the most commonly reported adverse effect of NGOs' projects/programs on target/recipient communities. There are also serious complaints on the part of the public that international NGOS and donor agencies are responsible for the evolvement of undesirable cultural, religious, political, etc. packages since recently.

Literature on Past and On-going Projects/Programs in the Abbay River Basin

Fanta Moges (2001) An Assessment of the Management Capacity of World Education Offices in the Amhara Region. M.A Thesis in Educational Planning and Management, AAU. .

The study assesses the management capacity of world education offices and identify the major problems of management in the Amhara Region.

Mulugeta Tassew (1999*).* Training and Agricultural Technology Adoption in Resource Poor Area of North Wollo: The Case of Meket Woroda. MA Thesis in Economic Policy Analysis, AAU. .

Kassahun Kebede (2001) Relocation and Dislocation of the Communities by Development Projects: The case of Gilgel Gibe DAM (1962-2000) in Jimma Zone, South West Ethiopia. MA in Social Anthropology, AAU, .

The study examines the impact of the project on the local community.

Mohammed Hassen (2000*)* Determinant Factors that Influence the Use of Family Planning among Eligible Couples in Rural Amhara: The Case of Bahir Dar Zuria. MA Thesis is Regional and Local Development Studies, AAU. .

The study identifies factors that have major influence on the use of family planning.

Lelissa Chalchissa (1998*).* The Determinant of Adoption Intensity and Profitability of Fertilizer Use: the Case of Ejere District West Shea. MA in Economic Policy Analysis, AAU. .

The study attempts to address the determinants associated with fertilizer adoption, intensity and profitability of its use in Ejere District West Shewa.

Getahun Hailemariam (1998). Prototype Community Health Information Retrieval System for Jimma Zone: A Case Study of Jimma Institute of Community Health. MA in Information Science, AAU. .

The study analysis the existing system and propose the design and development of appropriate commuter base information system.

Daniel Ayana (1988) Some Notes on the Role of Village Schools in Grafting Protestantism in Wollega: 1898-1935. In: CV 50, Vol. 1, pp. 329-336. .

This study is about strengthening of the Orthodox monarchies to assit the conquest of Menelik II via missionaries' assistances in the Region to weaken Protestantism.

Haultin, J, (1977). Mana and Land in Wollega, Ethiopia Gothenbury: University of Gothenbury, Department of Scoial Anthropology, 88 Pp.

Wood, A.P. (1978). Resettlement in Illubabor. Ph.D. Thesis: University of Liverpool.

Hasselblat, G. (1973). The Wollo Settlement Plan A/ Basheer 2(3): 143-154.

McCann, J. 1981. Ethio-British Negotiatione for the Lake Tana Dam, 1922-1935. International Journal of African Historical Studies 14(4): 667-699.

Woldeselassie Abute (1997) The Dynamic of Socio-Economic Differentiation and Change in the Beles-Valley (Pawe) Resettlement Area, North west Ethiopia. MA Thesis in Social Anthropology, AAU. .

The study identifies, confirms and strengthens the argument that resettlers are not uniform, static and homogenous group.

Ahmed Mohammed (2005). The Impact of Resettlement on Demographic and Socio-Economic Variables: The Case Study of Haro Tatessa Resettlement Site (Bedele Woreda in Oromiy Region). MA in Demography, AAU.

Yohannes Woldmariam (1992) An appraisal of Afforestations: Institutional, Social and Physical Dimension: A case study of Aliyu-Amba Catchments, North Shewa. MA Thesis in Geography, AAU. .

The study assesses the afforestation program being carried out in Aliyu-Amba catchement of Ankober Wereda in North Shewa.

Fantahun Ayele (1994) NGOs Relief Operation in Wollo 1973-1986 MA Thesis in History, AAU.

The study advocates the necessity of NGOs involvement in combating famine

Adane Mekonnen (1989*)* Health in Resettled and Indigenous Population in Kelem Awraja, Wollaga region, MPH in Public Health, AAU.

The study assesses the health condition of the study area

Fassil G.Kiros (1979)- A Critical Evaluation of Family Planning Prescription for Rural Wollo and Tigray. Ethiopian Journal of Development Research Vol 3. No.1. [IDR Library].

The study underlines the possible recurrence of drought in the region. To avert such occurrence of drought, the study recommend sthe urgent need of the implementation of family planning measures.

Getachew Olana (1993): Some Factors Influencing Peasant Response to Agricultural Technologies in Ethiopia: The case of Coffee Growers in Ghimbi, Ethiopia. Ethiopian Journal of Development Research Vol. 15 No. 2.

Todd Crawford and Habteab Degnew (1992). Reforestation Program in Tigre and Wello Proviences. IDR Research Report No.1. Addis Ababa. Unpublished memo.

Alula Abate, Tegegn Teka, Bayu Chane, Admasu Gebeyehu, Kassa Kinde (1988). Evolution of the Impacts of UNICEF Assisted Water Supply Projects in Bale. Haraghe, Shewa and Wollo, Ethiopia Program Cycle 1980-1983. IDR Research Report No. 30. Addis Ababa. Unpublished Memo.

The study attempts to help define the intended effect of rural water supplies and evaluate the socio-economic impacts of UNICEF assisted rural water supplies in and administrative region.

Asmerom Kidane and Assefa Haile Mariam (1988). Some Demographic Characteristics of Settler Population in Metekel and Gambella. In Proceedings of the Workshop on Famine Experience and Settlmeent in Ethiopia held at Addis Ababa, 29-30 December, 1988. Edited by Tegegne Teka. Addis Ababa: IDR Procedding No 10. [IDR Library].

The paper examines certain demographic characteristics of settler population at Metekel and Gamballa by making use of the data generated through survey conducted in 1985.

Abdurouf Abdurahman (2005). Resettlement and the Dynamic of Social Integration in Chewake Resetlement in IlU Aba Bora Zone. MA Thesis in Social Anthropology, AAU.

Getu Ambay (2003). Displacement - Induced Resettlement in Jawi . Beles valley of North West of Ethiopia. MA Thesis in Social Anthropology, AAU.

Dessalegn Rahmato (1997). Environmentation and Conservation in Wollo Before the Revolutio. IDR Proc No 17.

Getachew Mekuria and Lulseged Mengistie (PHRDP) (1996). The Role of NGOs and the Private Sector in Social Service Delivery (in Beneshangul Gumuz), Survey Research Report.

NGOs have had a very small impact, about 3% on making towards achieving the give of education for all in the region.

Ministry of Education (1990). Basic Education in Ethiopia: Challenges and Prospects We Want to Learn, MOE. AA. Policy Related (Library Study), UNESCO.

Basic education is a priority program to be implemented and can be expanded under an improved and strengthens educational management system.

Alebachew Tiruneh (1997). Preliminary Study on the Development and Expansion of Non-formal Education in Benishangul-Gumuz Region. Research Report. [IER Library]. Benishangul Gumuz.

Relevant information for plan of action in the attempt to establish/expand non-formal education is made available.

Oromia Education Bureau (1997). Survey of the Community Skills Training Centers in Oromia. Unpublished research report. Oromia Education Bureau. Finfinnee.

Community involvement in the selection of trainees is low. The number and type of Skill training given varies from center to center, negligence in ownership, coordination and lack of clear guideline exists.

Yemane Berhane et. al. (2000). Community Based Medical Education: The Experience of Jimma university in Ethiopia. 2000, 14 (special issue). 227-267.

The study shows that in the past, society was criticizing universities as ivory towers. However, in the community based education system, the learning activity follows a problem solving approach by involving both students and community who drive benefit from each other. Thus, Jimma University has established the system and benefited form it.

Misganaw Fantahun, Abubeker Kedir, Assefa Mullu, Dinsa Adugna, Daniel meressa, Estifanos Muna (2000). Assessment of Antenatal Care Services in Rural Training Health Center in Western Ethiopia. Ethiopian Journal of Health Development. 14(2), 155-160.

The study indicates that the antenatal care at Debark health center though established very few high-risk mothers were using it. The existing ANC clinics need to be improved to effectively screen women with high risk factors and deal with them appropriately.

Fekede Tsegaye (1990). Technical and Managerial Aspect of Environmental and Health Impact Assessment of Water Resource Projects. The Ethiopian experience Ethiopian Journal of Health Research 4(1): 65-68. (Special article).

ECA and Beneshangul Gumuz (1997). A Survey of Education program in Benshangull Gumuz Region.

Schools are scarce and in poor condition. Internal conflict among Gumuz families affect school enrollment.

Fifth Nile 2002 Conference Proceedings: Comprehensive Water Resources Development of the Nile Basin for cooperation. Feb 24 –28 1997 (IDR Library)

The Western part of Ethiopia has five water basins, which can produce 80% of the total water volume annually, and only one third of the country's population live within this basins.

Kinfe Abraham (2004). Nile Dilemmas: Hydro Politics and Potential Conflict Flashpoints. The Ethiopian International Institute for Peace and Development and Horn of Africa. Democracy and Development International Lobby.

The work reflects on the prospects of Nile basin sharing hydro politics and the potential of confects among these countries.

Mored (2003b) Voluntary Resettlement Program (A closs to improved land) Vol II AA.

Ethiopia has been facing major food insecurity problem for the past decades where demand for access to productive land become a major problem. The intra-regional voluntary resettlement programs are promising for the vulnerably sections and repeatedly affected section of the community by the drought.

Ministry of Water Resource (2001]. Irrigation Development strategy (component of the water sector development strategy).

Mintesinot Bahiru (2002). Assessment and Optimization of Traditional Irrigation of Verfisols in North Ethiopia. The case study at Gumselasa Microdam using maize as an indictor crop. PhD Thesis, University of Gent.

Desselegh Rahmato (1999). Water resource Development in Ethiopia: Issues of Sustainability and Participation. FSS Discussion Paper No. 1.

The paper emphasis is on water schemes for agricultural purpose (irrigation): large, medium and small scale where by the small and uses based pluralist and integrated effort to water development is encouraged. Such schemes are less costly, more sustainable environment friendly and do not involve human displacement which provide beneficiaries the opp. To manage directly and increase social benefit.

Woldeselassie Abbute (2001). Environmental Impact of Development Policies in Peripheral Areas: the Case of Metekel, Northwest Ethiopia. FSS Discussion Paper No 6

Dessalegn Rahimato (2003). Resettlement in Ethiopia: The Tragedy of Population Relocation in the 1980s. FSS Discussion Paper No 11.

Resettlement is a complex and costly and taking, and without careful planning, a sound assessment of land and other resource avails for resettlement, and the clown involvement of beneficial sis in both endeavors, the chances of success minimum. Resettlement under Derg was

meant to promote food security to relique population. Pressure of vulnerable areas and to bring envtalreh. But none of them succeed in 1980.

Todd Crawford and Habteab Dagnew (1972). Reforestation Program in Tigre and Wello Province. Addis Ababa. IDR Research Report No. 1.

Wood.P.A [ ]. The Resettlement of Famine Victims in Illubabor province, Ethiopia, African population mobility project, working paper No. 28 (IES-Library, AAU.]

The study examines the impact of population movement i.e Resettlement on the natural resource (forest) of the area. Moreover, the study assesses the social dynamics in occurred in the area as a result of the resettlement program.

VIII. Adequacy of Socio-economic and Demographic Information Available in the Abbay River Basin

The review study indicates that there are good databases made available on land tenure and related issues, as well as on forms of social organization in the Abbay River Basin. There are also a good deal of studies done on poverty and vulnerability, especially on the rural population living in the Amhara part of the basin (Wollo and North Shewa). There are also sufficient studies dealing with inter-ethnic conflict mainly as a result of the resettlement program in the area. Socio-cultural differences among migrants and indigenous group and its consequences in the western part of the basin, particularly in Wallaga and Benishangul Gumuz areas are well structured.

Detailed information is, however, required on the various aspects of social life in the different parts of the basin. Culture and area specific studies must be conducted in order to understand the life style of the different population living in the Basin. Further studies, for instance, are requited to understand the extent of poverty and vulnerability situation among the Oromo and the various minority groups in the Benishangul Gumuz areas. There is also a need to undertake a study on causes of conflict and conflict management at community level among the indigenous population.

Although there are a good deal of data on inter-ethnic/inter-community conflicts and conflict management, information about intra-community is critically lacking. Thus, fieldwork based studies are needed concerning forms, frequency and causes of disputes at community level including:

- Interpersonal disputes
- Intra- household disputes (among family members)
- Inter-house hold disputes
- Inter generational disputes
- Conflicts between sub-groups- between clans, lineages, inter-religious group and between religions factions/sects of the same religion.

The socio-cultural and ecological adverse effects of the various government/NGO-sponsored projects/programs also need to be assessed. There is no data indicating the nature of community

participation in the projects and people's attitude towards on-going development activities initiated by external agents (government or NGOs). There is also a need to make community level inventory of socio-cultural resources used at local level both privately and in common. Assessment should also be done on community mobilization to understand the institutional settings meant for participatory development programs.

Apart from the 1984 and 1994 Population and Housing Census of Ethiopia, most of the demographic and related surveys do not provide information at local level. As a result of this, it is hardly possible to undertake basin specific analysis of population data. Even though some studies provide information at zonal level, it is still quite difficult to assess what is exactly happening among the residents of the basin population. Detailed studies like the Demographic and Health Survey or Employment, migration surveys needs to be taken among the population residing in the Abbay Basin. Such studies should take the basin area as a general framework to set the sampling design so that conclusions are made accordingly.

The existing demographic and socio-economic information may help to indicate the overall situation of the population residing in the area. It does not help to assess the impact or contribution of any development initiatives to be undertaken within the framework of Joint Multi-purpose Projects. A number of basin specific surveys have to, therefore, be undertaken to monitor and evaluate in-coming projects.