

## Population Growth and Settlement Expansion in the Fringes of Addis Ababa and its Impacts on Farming Households: the Case of *Kebele 15* of Bole Sub-City<sup>1</sup>

Chalachew Getahun<sup>2</sup>

### Abstract

This study focuses on estimating the rate of urban settlement expansion in the fringes of Addis Ababa, and on examining the causes for this and the impacts it has on the livelihoods of the farming households living there. For this purpose, aerial photographs covering the study area, GIS tools and GPS were used; questionnaires were also distributed to sample urban households, and interviews were conducted with a sample of farming households in *Kebele 15* of Bole sub-city. The main findings of the study indicate that the rate of urban settlement expansion in the fringes of Addis Ababa has been very fast. While the city has not been expanding uniformly both in space and time, the fastest rate of expansion has been observed in recent years, everywhere except in the northern part of the city. In particular, the rate for the study *Kebele* in eastern Addis Ababa has been high. Population growth, which is the direct cause of such expansion in the fringes of the city, is the result of in-migration. In the fringes of the city, for instance, population growth has been more than four times that of the city as a whole. In addition to population growth, the prevailing urban development practice of the city government has contributed significantly for the rapid horizontal expansion of the city. This has resulted in, among other things, the loss of the arable land, and most importantly, the loss of the agricultural livelihood of the farmers in the city fringe. The measures being taken by the government to compensate for the loss of peasants' agricultural livelihoods, including the efforts to re-establish them, are very far from being adequate. As a result, the affected farming households have been marginalized and impoverished.

---

<sup>1</sup> This paper was taken from an MA Thesis (July 2005) submitted to the School of Graduate Studies of Addis Ababa University in partial fulfillment of the requirements for Degree of Master of Arts in Geography and Environmental Studies.

<sup>2</sup> Department of Geography, Bahir Dar University.

## 1. Introduction

According to UNCHA<sup>3</sup> (in IRIN, 2003), Ethiopia, though among the least urbanized, is facing a massive urban explosion as families move from rural areas to cities. The CSA's<sup>4</sup> (1994) census report indicates that Addis Ababa had 2,112,737 inhabitants in 1994. Ten years later, CSA's (2004) official projections indicate that there were 2,805,000 inhabitants in the city. This means, there has been an increase of more than 32% over the decade at an annual growth rate of 2.87%. However, according to the results in a workshop organized by ORAAMP<sup>5</sup> (2000), it was found that CSA's figures refer only to the registered or known residents and exclude temporary residents, tenants and the homeless.

This suggests that the actual growth rate of population in the city has been much higher than what the CSA reports officially indicate. As a result, the data used to indicate the growth rate of population for the city for various periods varied among different sources. Some informal sources, for example, indicate a growth rate as high as 6%.

Consequently, Addis Ababa has been expanding into its surrounding areas in all directions eating up the agricultural and forest lands, except to the north, where settlement expansion has been relatively halted by the Entoto mountains. According to Tegegne Gebregziabher (2000), the conversion of agricultural land to urban use has been clearly seen in Keranio, Mekanisa, Bole-Bulbula, Kotebe and Akaki areas. In addition, the expansion areas are generally plain with good agricultural potential (NUPI)<sup>6</sup>, 1998; CGAABEP<sup>7</sup>, 2004). One of the severe problems brought about by loss of agricultural land due to urban peripheral growth is the loss of agriculture employed livelihoods in the city fringe<sup>8</sup>. According to Beeker (1997) and Birkie (in Zewdie and Zeleke, 1998), for instance, following the enactment of the Urban Land Lease Holding Regulation N<sup>o</sup> 3/1994, substantial numbers of the farming communities have been displaced; and

---

<sup>3</sup> United Nations Center for Humanitarian Affairs

<sup>4</sup> Central Statistical Authority

<sup>5</sup> Office for Revision of the Addis Ababa Master Plan

<sup>6</sup> National Urban Planning Institute

<sup>7</sup> City Government of Addis Ababa Bureau of Environmental Protection

<sup>8</sup> Part of the non-built up area immediately following and eaten by the expanding built-up area.

the remaining farmers in the city fringe are liable to be displaced. While the displaced farmers were paid no compensation at all during the socialist government (Feleke, 1999), the current government has attempted to provide cash compensation for the loss of their landed property, though not for the loss of land itself. However, this has not been adequate to re-establish farmers. As long as those affected are not properly re-established, *“the expansion policy of the city will cause people to be worse off”* (Tegegne, 2000: 40).

In spite of this problem, empirical research on the rate of urban settlement expansion through land conversion<sup>9</sup> as such in the cities of developing countries is scanty. In Ethiopia, strictly speaking, such studies are almost non-existent. The available few works that might touched upon this subject have two major problems. First, these sources are only fragmented, i.e. they either study population growth ignoring the study of how this relates to spatial expansion of the city (e.g. Falge *et al*, 2000; Mengistu & Sjoberg, 1999 are the cases in point) or study only the impacts caused by the city expansion ignoring the study of the nature of the expansion (e.g. Feleke, 1999). Second, even when a few of them attempt to deal with physical expansion of the city, they do not accurately tell us how fast the rate of expansion has been. For example, according to Beeker (1997) and Birkie (in Zewdie and Zeleke, 1998), Addis Ababa has been said to have been expanding at a rate of 200 ha per year. This, it seems, was arrived at by dividing the total built-up area by the city’s age. Such a result is undoubtedly crude, for it has implicitly assumed a uniform rate of spatial and temporal growth. By contrast, Minwuyelet (2004), in his study of city expansion and squatter settlement in Addis Ababa, has calculated the built-up area of the city to have been 1863.13 hectares by 1936; 6050 ha by 1975; 10838 ha by 1985; 13763 ha by 1995; and 14672 ha by 2000, based on data obtained from ORAAMP’s land use and city structure study of Addis Ababa and metropolitan areas.

However, although this may be the first attempt dealing with estimation of the temporal changes in the rate of city horizontal expansion to date, the results provided seem to be much underestimated. Moreover, Minwuyelet’s principal objective was assessing the causes and consequences of squatting

---

<sup>9</sup> The process by which land use changes from non-urban use to urban use

in the context of unplanned expansion of the built-up area of the city, rather than estimating the rate of urban horizontal settlement expansion as such.

This paper will, therefore, attempt to bridge this gap by estimating the rate of urban settlement expansion; seeking to find out the causes; and assessing its impacts on the farming communities living in the fringes of Addis Ababa.

The specific objectives of the study are to:

- estimate the rate of urban horizontal settlement expansion into the arable land (through land conversion from agricultural use to urban use)
- examine the rate and patterns of population growth and the urban land development practice of the government as causes of settlement expansion
- assess the impacts of urban horizontal settlement expansion on the livelihoods of the farming communities living in the city fringe.

## **2. Data Sources, Methodology and the Study Area**

### **2.1 Data sources and methodology**

Data were acquired mainly through primary sources. Secondary sources were also used. Primary sources included questionnaires, interviews, aerial photographs and field observations. Secondary data included documents, reports and publications.

To estimate the rate of urban horizontal settlement expansion in the study Kebele, aerial photographs in time series (1994, 2002), GPS<sup>10</sup>, GIS<sup>11</sup> tools and the 2003 administrative map of Addis Ababa City were used. Field observation was made where spatial features were identified and ground control points were determined using GPS. Using GIS tools, a mosaic of all photographs was produced for base years 1994 and 2002. But, since the 2002 aerial photographs do not show the changes in land conversion after 2002, they were supplemented using information from ground survey. Then, urban built-up areas for base years were clipped by

---

<sup>10</sup> Global Positioning Systems

<sup>11</sup> Geographic Information Systems

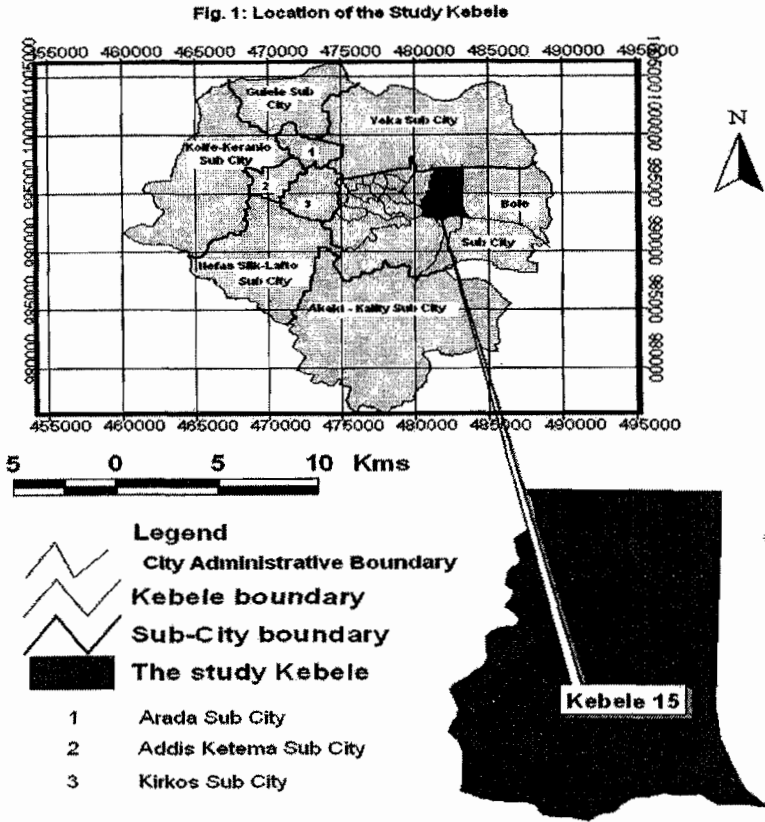
the 2003 administration boundary of the study *Kebele*. Lastly, the rate of settlement expansion was estimated for each base year (1994, 2002 and 2004).

To generate data on the causes of urban horizontal settlement expansion (population growth and the prevailing urban planning & development practice), questionnaires were administered to the sample households. Sampling was stratified by settlement characteristics (formal or informal) and tenure (owner occupier or rental). Questionnaires were administered to a total of 260 sample households; of which 245 households returned the completed questionnaires (the remaining either did not return the questionnaires at all or returned them uncompleted). The total number of formally registered households as urban dwellers in the *Kebele* was about 5261, of which 1540 were under rental tenure in the formal settlement. Questionnaires were administered to 70 household heads under rental housing tenure in the formal settlement; and 95 household heads each in the formal settlement as owner occupiers and in the informal settlement.

To obtain data on the loss of farmlands, aerial photographs and government documents and reports were used. The total sizes of cultivated land in the study area were identified from the aerial photographs for both years and, the changes were detected using GIS tools, thus allowing an estimation of the amount of land lost to urban settlement between 1994 and 2002.

To assess the impact on the livelihood of farmers, the guiding rules and procedures adopted by the city government, government reports, selected literature, and structured interviews with 30 affected farming household heads were used.

2.2 Study area



The study area (*Kebele 15*) is located in Bole Sub-City<sup>13</sup>, eastern Addis Ababa. In the east, it is separated from *Kebele 16* (inhabited both by urban & farming households) by an asphalt road running north-south; in the west, from *Kebele 14* by a stream; in the north from Yeka Sub-City by the main road that runs from Megenagna to the Ayat Real Estate Project; and in the south, it is bordered with rural *Kebeles* (Fig. 1). Currently, the *Kebele* is inhabited both by urban residents and farming communities. While most of the northern section of the *Kebele* (which is closer to the asphalt road) is occupied by urban residents, most of the farming communities are limited

to the southern section. In this *Kebele*, there is a high rate of conversion of non-urban land to urban use.

### 3. Results and Discussion

#### 3.1 Population growth, city development practice and settlement expansion in Addis Ababa: general consideration

##### 3.1.1 Population Growth

As the political, administrative, cultural and socio-economic center of the country, Addis Ababa has attracted a large number of people from all over the country. In recent years, however, there seems to be a trend of decline in the rate of growth. An analysis of population growth for the city indicates that the rate of growth was very high, but has started to decline. As indicated in the table, between 1984 and 1994, the annual growth rate was 4.03%. In 2004, just a decade later, it had declined to a projected 2.87%.

**Table 1: Population growth rate for Addis Ababa, 1984-2004**

Year	Population Size	Absolute Change	Average Rate of Change
1984	1,423,182	-	-
1994	2,112,737	689,555	4.03
2004	2,805,000	692,263	2.87

Source: Computed from the 1984 Population and Housing Census, P.7, Table 1.2; The 1994 Population and Housing Census, P.14, Table 2.1; and CSA Annual Abstract 2004.

Though there has been general decline between the decades indicated, this is not the case for the individual years within a decade, and the rates tend to fluctuate rather than decline smoothly. Mekete (1990) in analyzing rank-size patterns in Ethiopia states that through time, Addis Ababa has been the dominant city over the other cities/towns in the country in terms of size, and concluded that its growth trend would continue until about the year 2000. As far as the rate of growth is concerned, his conclusion is accurate, though the decline started a little earlier than anticipated. In recent years, the population growth rate for Addis Ababa has been the lowest compared to almost all regional capitals. As table 2.3 shows, between 1984 and 1994 the highest growth rate was 6.64% for Awasa and the lowest growth rate (1.93) recorded was for Harer. Among those considered, Addis Ababa had the fifth lowest growth rate, but this was lower than the average

growth rate for the other towns considered. However, between 1994 and 2004, the lowest rate among the towns/cities considered was that of Addis Ababa, both individually and on average (Table 2). Whether the decline in Addis Ababa's population growth rate relative to other major cities/towns is attributable to the socio-economic and political changes following the administrative restructuring (regionalization/ decentralization) of the country or, to other causes remains to be investigated.

**Table 2: Population growth rates for Addis Ababa and selected towns (%)**

Year	Towns / City										
	Addis Ababa	Awasa	Bahr Dar	Dire Dawa	Desc	Debre Zeit	Gonder	Harer	Jima	Mekele	Adama
1994	4.03	6.64	6.08	5.65	3.12	2.80	3.36	1.93	3.97	4.46	5.17
2004	2.88	5.14	4.74	4.10	4.73	4.99	4.71	4.09	5.00	4.79	4.99
Mean	3.46	5.89	5.41	4.88	3.93	3.90	4.03	2.98	4.48	4.62	5.08

Source: Computed from the 1984 Population & Housing Census report, P.11, Table 1.3; the 1994 Population & Housing Census report, PP. 30-45, Table 2.3; CSA Annual Abstract 2004, pp. 46-71, Table B.4.

### 3.1.2 Prevailing city development practice

To date, Ethiopia has no urban policy that guides inter-city, intra-city or town development. However, the city government has attempted to address the spatial problems of the city through various mechanisms which, generally, include growth in the vertical dimension, high density residential development and efficient utilization of unused or underutilized urban land. However, the results of the actual practices and future plans indicate that the city is growing and will continue to grow, in contrast to what is intended, in a spatially unsustainable manner. This is evident from the following brief points:

- the government's plan (as stated in the revised master plan) to make available adequate supply of construction land in expansion areas
- relocation of all households displaced by inner city redevelopment schemes in expansion areas



- the attempt to encourage accommodationist rather than restrictive policy as far as migration is concerned
- urban land leasing, the profit of which motivates the government to supply as much land as possible
- lack of serious concern as regards city spatial expansion by policy makers and planners, as evident in the various government documents
- relatively declining, but still significant, informal land acquisitions and illegal constructions that have resulted in inefficient land utilization
- prevalence of leap-frog type of city growth and formation of widespread vacant land, as evident from aerial photographs and field observations.

In countries where land is owned privately, it is left idle for economic reasons, mainly because of speculation. However, in Ethiopia, where land belongs to the state or public, the prevalence of idle land is perhaps due to weak and inefficient land development practice on the part of the government. Generally, it is clear that such haphazard city development practice contributes significantly to horizontal expansion of the city.

### **3.1.3 Settlement expansion**

ORAAMP (2002) has produced a map of the evolution of Addis Ababa based on data from four years: 1975, 1985, 1995, and 2000. In this section, GIS tools were used to process this map to compute data that show the rate of physical expansion of the city as a whole (Table 3). Thus, by 1975, i.e. ninety years after its establishment, the total size of the built-up area for the city was 5,426.1 ha. This means the city was expanding outward at an average rate of 60.3 ha per year, which was less than 11% of the total size of the city within the administrative boundary and less than 24% of the total built-up area. By 1995, the total built-up area had increased to 16,039.1 ha, raising the share of built-up area up to 30.2% of the total size of the city within the administrative boundary. Thus, in twenty years, 10,613 ha of non-urban land were converted into urban use at an average rate of 530.7 ha per year. This accounted for 45.8% of the total built-up area. This rate is more than nine times greater than that which occurred in 90 years. This is quite much. However, a much more dramatic rate of increase occurred after

1995. By 2000, the total built-up area had grown to 23,197.8 ha, raising the total size of the built up area to 43.7% of the total size of the city within its administrative boundary. In five years alone, 7,158.7 ha of rural land were converted into urban land use, which means the conversion rate was 1,431.7 ha per year, and it accounted for 30.9% of the total built-up area of the city. The rate during this period was approximately three times that of the preceding twenty years; and about 24 times the rate by 1975.

**Table 3: Average expansion rate for Addis Ababa, 1886-2000**

Period	Built up Area [in hectares]	% Built up area out of total city size in its boundary	Average Rate of Expansion [hectare per year]	% Contribution of the total built-up area
1886-1975	5426.1	10.2	60.3	23.4
1976-1995	16039.1	30.2	530.7	45.8
1996-2000	23197.8	43.7	1431.7	30.9

Source: Own estimate (using GIS tools and a map by ORAAMP, p. 8)

In 1984 the boundary of the city was redefined to include expansion areas. It has been estimated that the total size of the city (both built-up and non-built up) was 53,115.8 ha. Out of this, 23,197.8 ha were built-up already by 2000. If this rate continues, the whole area within the city's administration will be built-up by 2020. However, since the rate is increasingly rising from year to year, it could be argued that the conversion of the whole area within the administrative boundary will be reached sooner than anticipated. In some places, built-up areas have already occurred beyond the limit of the city boundary such as in northeastern, northwestern and southern parts of the city. This will pose a serious threat to farmers in the surrounding areas, the vegetation, and the preserved areas, unless effective mechanisms and strategies are implemented to curb the trend.

An attempt has also been made to describe the main directions of expansion. The geo-center of the built up area as it was in 1975 was used as a reference point from which to measure the distance the urban built-up area has occurred in a particular direction up until 2000. Thus, the farthest boundary of the built up area lies to the south-south-east (SSE), which is 20.63 km. The next farthest boundary (15.73km) from the geo-center lies to the east-north-east (ENE). The city has also expanded to the east (13.45km),

south-west (11.7km) and north-west (11.11km). Most of the expansion, therefore, occurred along the main roads leading to the regional states' cities and towns. However, as already noted at the outset, northward expansion has been very much restricted by the Entoto mountain ranges. As in the case of Gerji and CMC-Ayat areas, huge expansion has also taken place along roads that open out into rural *Kebeles* in the city fringe.

### 3. 2 Population growth and settlement Expansion in the fringes of Addis Ababa: the case of *Kebele* 15 of Bole sub-city

#### 3.2.1 Population growth

Table 4 shows population growth rate in the *Kebele* both in terms of household number and population size, for informal settlement and formal settlement owner occupiers.

**Table 4: Population growth in *Kebele* 15, 1994-2004**

Year	Informal settlement				Formal settlement - owner occupied			
	Household		Population		Household		Population	
	N <sup>o</sup> of House-holds	Rate of change [%]	Population Size	Rate of change [%]	N <sup>o</sup> of House-holds	Rate of change [%]	Population Size	Rate of Change [%]
1994	48	---	199	---	21	---	76	---
1995	53	10.4	215	8.0	38	80.9	111	46.1
1996	56	5.6	221	2.8	43	13.2	142	27.9
1997	56	0	227	2.8	46	7.0	149	4.9
1998	61	8.9	239	5.3	49	7.0	172	15.4
1999	61	0	225	-5.9	54	10.2	194	12.8
2000	69	13.0	284	26.2	54	0	192	-1.0
2001	69	0	289	1.8	62	14.8	221	15.1
2002	80	15.9	331	14.5	76	22.6	280	26.7
2003	85	6.3	353	6.7	86	13.2	312	11.4
2004	93	9.4	372	5.	89	3.5	340	9.0
Mean	73.6	7.5	295.5	6.	62.7	17.2	218.9	16.8

-Source: Field Survey; 2004/05

Table 4 indicates that at the household level growth in the number of households was much higher for the formal settlement sector (17.2% on average) than for the informal settlement (on average, 7.5%). In terms of

population too, similar observations were made: 16.8% and 6.8% respectively. This is extremely high compared to the average for the city as a whole, which was projected at 2.87% between 1994 and 2004. In their analysis of the impacts of population growth on urban management in Addis Ababa, Falge et al (2000) concluded that the main contributor to growth was migration which accounted for two-thirds of the growth, and fertility in the city was the lowest contributor. In this study too, 65% of the city growth in the general settlement category is from migration; natural increase accounting for only about 31%.

Analysis on patterns of migration has also been made, and shows that about 51% of the sample households were not residing in the study *Kebele* prior to 1994, while 47% were already there. Variation exists, however, among settlement/tenure categories. In the informal settlement, the presence of more than half of the sample households before 1994 in the area might have been due to uncontrolled illegal constructions at the time of the turmoil relating to government change. The rapid increase in the number of households in the formal settlement owner occupiers' category after 1994 appears to have been due to the land leasehold regulation proclamation that accelerated investment in land conversion for various urban land uses. In the case of the formal settlement rental tenure, the residents were deliberately relocated there from the Fil-Wuha area by the Sheraton Addis Hotel Project before 1994. Of those who were not resident in *Kebele 15* prior to 1994, 26% came to the *Kebele* from outside Addis Ababa and about 70% from other parts of the city. Here, it should be noted that since much of the city's growth is from in-migration, by implication most of those who moved to the *Kebele* from other parts of the city are also migrants: These were people who first arrived in other parts of the city and then subsequently moved to the *Kebele*. It follows, then, that the largest contributor for population growth in the *Kebele* is in-migration.

As regards spatial aspects of migrants' destinations in the city, Mengistu and Sjoberg (1999), in their study of urbanization during socialist Ethiopia, found out that migrants settled mostly in the fringes of city centers before they move to city outskirts. The result for my study is also consistent with the findings of Mengistu and Sjoberg. It is important to note that with the exception of Fil-Wuha and a few other inner city areas, the rest of the localities are peripheral areas or areas that surround inner city areas.

However, these households (those from Fil-Wuha area), though large in number of people (approximately 29% of the total households residing in the *Kebele*<sup>12</sup>), were purposefully resettled in this place by the city government due to urban redevelopment activities in their place of origin, and thus should not be confused with local redistribution of population which normally results from personal choice.

Efforts were made to acquire information about the factors that attracted the migrant households both to the city and to the *Kebele* under study. Analysis relating to these points indicated that the largest majority (55.4%) of the sample households reported that the search for better job opportunities was their most important reason, followed by 33.7% who gave the search for better infrastructure and service facilities as their most important reason for migrating to Addis Ababa (Table 5).

**Table 5: Factors causing in-migration to Addis Ababa**

Reasons mentioned	N <sup>o</sup> of respondents rating reasons as 1 <sup>st</sup> choice	% Share
Better job opportunities	46	55.4
Better infrastructure & service facilities	28	33.7
Job transfer	2	2.4
Displacement (e.g. war, conflict, drought, etc)	5	6.02
Other reasons	0	0
Not stated	2	2.4
Total	83	100

Source: Field Survey; 2004/05

As to the reasons for moving out to the peripheral areas (to the study *Kebele*) from inner city areas or from areas surrounding inner city areas, 38.2% reported the need for cheaper land price and cheaper construction materials, while 29.2% of the households reported displacement by urban redevelopment as their most important reason (Table 6).

<sup>12</sup> Source: *Kebele* 15 Administration Office, 2004/05

**Table 6: Factors causing local population redistribution to Kebele 15**

Reasons Mentioned [pull factors]	N <sup>o</sup> of respondents rating reasons as 1 <sup>st</sup> choice	% Share
Cheaper land price	34	38.2
Clean and open space	9	10.1
Displacement by urban redevelopment	26	29.2
Planning requirement by the municipality	7	7.9
Other reasons	5	5.6
Not stated	8	9.0
Total	89	100

Source: Field Survey; 2004/05

### 3.2.2 Settlement Expansion in the Kebele

The administrative size of the study *Kebele* is about 1272 ha (estimated using GIS tools). Until 1994, the total size of the built-up area was 99.8 ha, accounting for less than 7.8% of the total size of *Kebele*15, and approximately 15% of the total built-up area. By 2002, the total built-up area had increased to 550.3 ha, pushing the share of built-up area up to 43.3% of the total size of the *Kebele*. Thus, in eight years, 450.5 ha of non-urban land were converted into urban use, at a rate of 56.3 ha per year; this accounted for 68.4% of the total built-up area. The rate for 2004 was slightly lower. The total built-up area grew to 659 ha, raising the total size of the built-up area to 51.8% of the total size of the *Kebele*. In two years, 108.7 ha of rural land were converted into urban land use; at a rate of 54.4 ha per year, and this contributed to 16.5% of the total built-up area of the *Kebele*.

**Table 7: Average rate of settlement expansion in Kebele 15, 1994-2004**

Period	Built-up area [in hectares]	% Built-up area out of total Kebele size	Average rate of expansion [hectare per year]	% Contribution of each period for the total built up area
1994	99.8	7.85	---	15.1
2002	550.3	43.3	56.3	68.4
2004	659.0	51.8	54.4	16.5

Source: Own Estimate (using aerial photographs and GIS tools)

An attempt has also been made to identify which settlement category (formal or informal) contributed significantly to expansion.

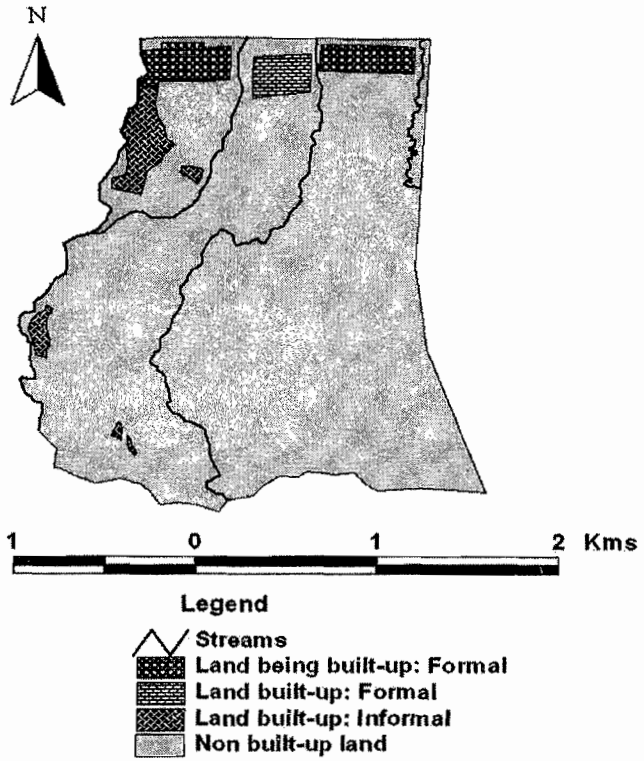
**Table 8: Settlement categories contributing to expansion in Kebele 15, 1994-2004**

Period	Settlement category	Total built-up area (hectare)	% Growth	Contribution to total built-up (per cent)
1994	Formal (already developed)	18.4	---	18.4
	Formal (under construction)	45.1	---	45.2
	Informal	36.3	---	36.4
	Total	99.8	---	100
2002	Formal	434.5	584.3	79.0
	Informal	115.8	219.0	21.0
	Total	550.3	451.4	100
2004	Formal	543.2	25.0	100
	Informal	No change	---	---
	Total	659	19.8	100

Source: Own Estimate [using aerial photographs & GIS tools]

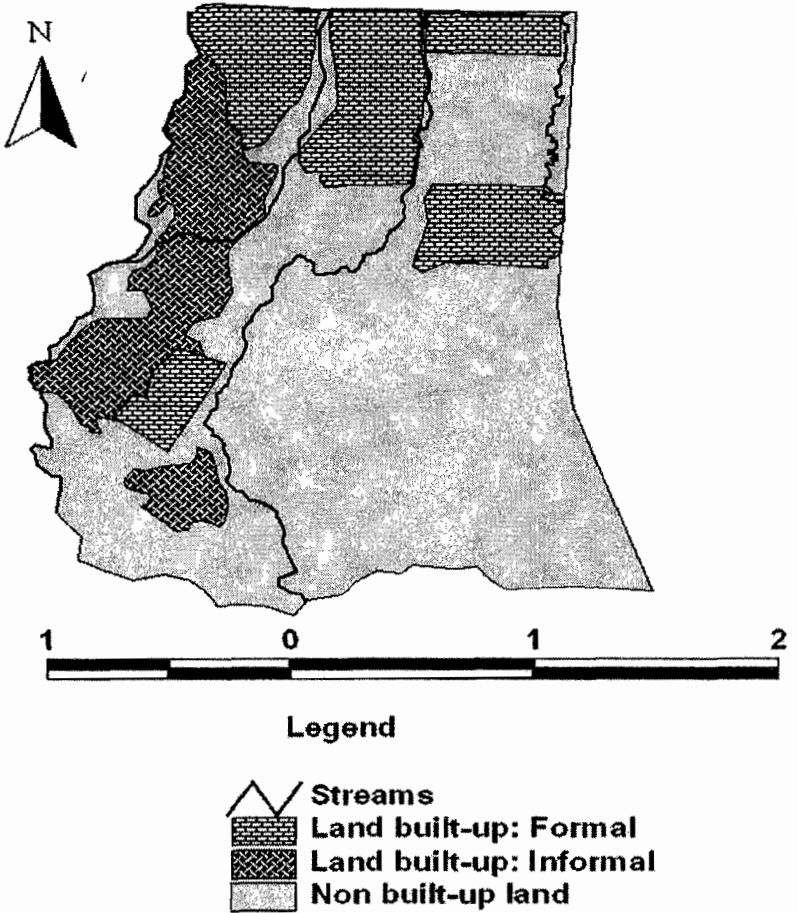
Just before 1994, i.e. before the start of the construction of what now constitutes much of the CMC and the diplomatic village, the only formal built-up settlement was the one occupied by people relocated there from the Fil-Wuha area by the Sheraton Addis Hotel Project. This is the ALTAD-CMC proper area, and accounted for approximately 18% of the whole urban settlement in the area that now constitutes the present *Kebele*. The rest part of the built-up area was occupied by informal settlements. The start of a 1000-houses project by the former Bureau of Urban Development and constructions by housing co-operatives in 1994 raised the contribution of formal settlement to 63%, while apparently reducing that of the informal settlements. By 2002, the area occupied by both formal and informal settlements increased. However, in terms of proportion, informal settlements showed a decline and dropped to 21%, while formal settlements rose to 79%. Apparently, by 2004, the whole of the increase in the built-up areas was accounted for by the formal settlement (Figs. 2, 3, 4). It appears, therefore, that the government has succeeded in effecting the law against illegal constructions.

Fig. 2: Urban Settlement in Kebele 15 by 1994

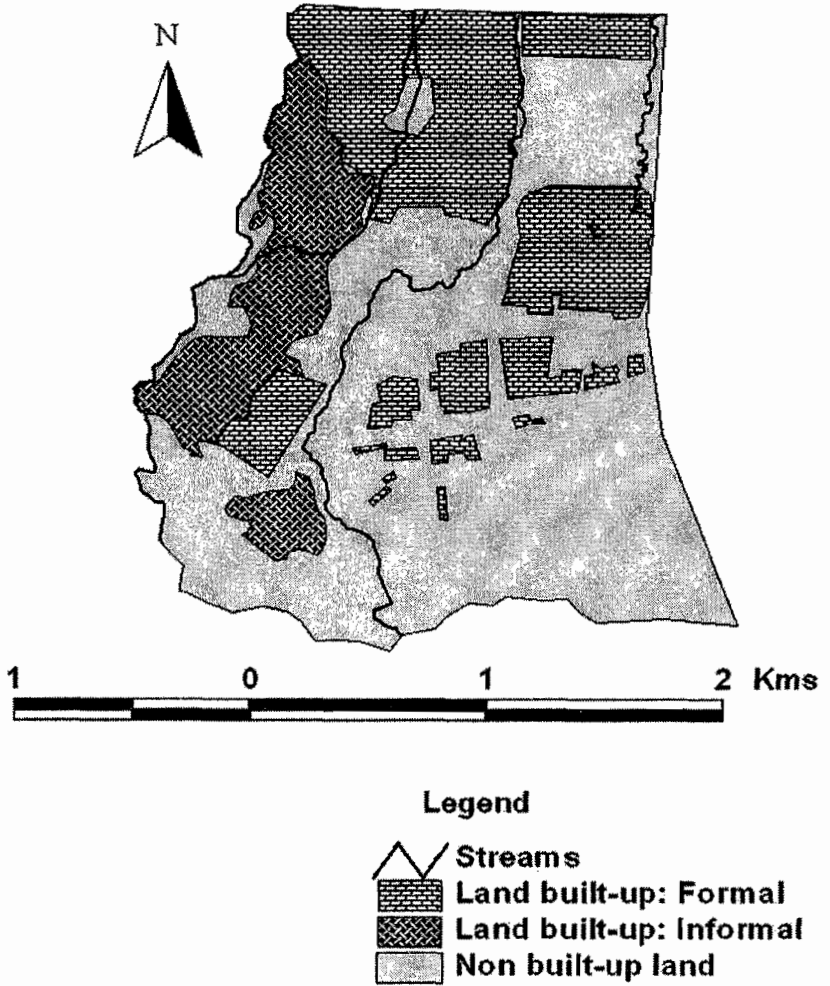




**Fig.3: Urban Settlement Expansion in Kebele 15 by 2002**



**Fig. 4: Urban Settlement Expansion In Kebele 15 by 2004**



### 3.3 The impact of settlement expansion on the livelihood of farmers in the city fringe

#### 3.3.1 Land conversion and the dispossession<sup>13</sup> of farmers

The conversion of land from agriculture to urban land use over the past few decades has been possible at the cost of the dispossession of farmers. According to the CSA (1988) statistical abstract, the 1987 rural population of the city within its current boundary was 399,376. According to the CSA (2003) agricultural sample enumeration results, the 2001/02 agricultural population residing in rural *Kebeles* within the current boundary of the city was 79,057. At the household level, it was approximately 72,614 in 1987 and 14,374 in 2001/02 (assuming the national average household size to be 5.5 persons). This means, 80% of the farming households within the city's boundary were dispossessed of their agricultural livelihoods.

When it comes to the study *Kebele*, the total cultivated land for 1994 was about 461 ha. In 2002, it had fallen to 209 ha (Aerial photo analysis using GIS, 2004/05). This means, 252 ha of cultivated land had been converted to urban land use, some of which was left idle. However, it was not possible to know the exact number of farmers affected by the land conversion, since the place has been under rapid rural-urban transformation. However, a field survey report by NUPI (1998) indicated that a survey which covered an area of 229.43 ha in the study area had 205 farming households residing in it. During that time, the area used for cultivation and grazing was 176 ha. From aerial photo analysis of the place for 2002 in this study, however, it was found out that the whole of this place was part of the built-up area; which means 205 farming households have lost their agricultural and grazing land. It also means that, since the built-up area is found in the formal settlement, the households also lost their homes and resettled in another site in the *Kebele* (Field Observation, 2004/05).

In terms of the legal or procedural issues involved in the process of land transfer<sup>14</sup>, the farming households were only informed about the decisions

---

<sup>13</sup> The prevailing process of transferring land originally occupied by the farming households in the city fringe under their land utilization right, without adequate compensation arrangement and /or measures taken to re-establish them.

<sup>14</sup> Change in land utilization rights from peasants for agriculture to the city government for urban development.

of the government through their immediate officials (Interview with the affected farmers; 2004/05). The government did this on the pretext that it has both legal and constitutional rights to take land from any land user for development purpose. According to the interviewees, the officials, tried to convince the farmers by promising many benefits. However, this was a false promise from the very start, since it is clear that on the part of the farming households, the chance to participate, and to agree or to disagree, is prevented by law.

According to compensation payment study by CGAABWUD <sup>15</sup> (1989.E.C.), it was found that the annual produce of each household in monetary terms was 2620.00 birr from crops, 847.00 birr from grazing and fodder, 609.70 birr from milk production and 94.67 birr from dung-cake. It was decided that the compensation should be one that allows the farmers get the same amount of income as if they were allowed to continue to cultivate the land. Thus, in order for a farmer to receive 2620.00 birr for the loss of income from crop production and 847.00 birr for the loss of income from grazing and fodder at the then bank interest rate (7%) annually, 37429.00 birr and 12,100 birr, respectively, would have to be paid. If a farmer had three ha of crop land, he/she could expect to receive 112,287.00 birr in compensation. This appears to have been a huge amount to farmers who had no previous experience of possessing such an amount of money. However, a number of problems can be identified from the compensation arrangement, as indicated in the guiding rules and procedures, and these problems can be summarized as follows:

- The calculation has inherently assumed a static bank interest rate (7%) while the general trend has been a steady decline (currently 3%). This means the farmers are not actually receiving the amount of money as determined in the field study.
- The calculation has practically assumed a static agricultural product price while the general trend has been one of a steady rise; hence the farmers have lost the amount of additional income which could have been obtained from the increasing price.
- Compensation payment is selective. Only the loss of benefits from cattle products and byproducts are included. However, interviewees reported that other animals also provided an important income to

---

<sup>15</sup> City Government of Addis Ababa Bureau of Works and Urban Development

them. Such a basis for calculating compensation therefore harms particularly those households who do not have cattle at all.

- The additional rate of payment (25% for those who had less than 1 ha, and 5% for those who had 1-2 ha) decided to be made to narrow the widening gap in compensation payment received by those who had larger plots and those who had smaller plots is inadequate.
- The compensation given for houses removed by physical planning, in addition to failing to consider the rising cost of construction is insignificant since those resettled are required to build an urban housing unit meeting the minimum planning and construction standards of the city.

### **3.3.2 Experiencing the impacts**

As has become very clear from our discussion far, most of the farmers that have been affected by the expansion have become landless. According to the interviewees, no projects or trainings have so far been designed to assist them to find work and re-establish themselves. Although a 2 - 4 month training was initially started in some vocations, the proposed rehabilitation was not implemented either because there was no follow-up by government officials or any other responsible body, or because the training was subsequently interrupted. As a result, most (86.7%) have sought for other means of acquiring land for farming in the city fringe farther out, and some have jobs with little or no security, such as daily laborers, while others (10%) have become completely jobless. It is to be acknowledged, however, that very few have encountered better living condition than they had before. Members of this group reported that they have purchased trucks and rented them for various transport purposes.

With the exception of those who had a very small amount of farmland, most used to produce food grain sufficient to feed their household for approximately eight to nine months, on average. During the remaining three to four months, usually in the rainy season, food shortage was compensated by income from the sale of milk products, dung-cake, firewood, chickens, and the like. Following the loss of their agricultural land, however, almost all of them (except those making income from renting trucks) depended on the small amount of money given in compensation. However, they reported that since the compensation was very inadequate, there is currently no

money left for food, let alone for the future. This indicates that the improperly planned and executed transfer of land from agriculture to urban development has resulted in food insecurity. This will become an even more serious problem, particularly, when viewed in the light of the high rate of settlement expansion into the fringe area that will soon deprive them of land which they had acquired by different means. Even those who owned trucks reported that their income from renting trucks is facing stiff competition from the established truck owners.

The government rules and procedures state that given adequate compensation for their house and given construction land free of charge, the farmers are required to build houses that meet the minimum planning and construction standards of the city. In practice, however, the compensation paid is inadequate though land has been given freely. While the compensation payment ranged from 2,500 birr to 25,000 birr, the average was 10,184 birr. According to the Ethiopian Housing Sector Study the Addis Ababa Report for 1996 (cited in UNDP<sup>16</sup>/UNCHS<sup>17</sup>), the cost of the minimum construction standard for a house with the minimum floor area in Addis Ababa is 30,520.00 birr for a mud house; and 58,352.00 birr for a concrete block house. Therefore, the compensation payment given to a farmer to build a minimum standard housing unit covers, on average, only 33.3% of the cost of a mud house or 17.5% of the cost of concrete house.

During the field survey, too, most of the interviewees reported that the payment given to them was not even cover the cost of the corrugated sheets of iron. The majority of households had spent most or all of their available money on home construction. Despite this, the houses were very far from meeting the required standards. Most of them had constructed single-room houses with wood and mud walls. However, since the farmers (particularly those with larger families) were not familiar with such type of housing units, most had rented them to people coming from inner city areas, and had moved farther out to the nearby peasant associations, away from the fringe zone. However, since the area in the fringe zone will be absorbed by the expanding built-up area, this farther displacement of the households leaving the land being converted behind is not a real solution. Rather, it will worsen

---

<sup>16</sup> United Nations Development Program

<sup>17</sup> United Nations Center for Human Settlements

their suffering by causing them face the same problem more than once. In addition, the land allocation for home construction did not consider the young adult members of the household as would-be home builders. Together, these facts suggest, therefore, that homelessness will be an imminent threat to the resettled farming households, as they have already become part of the urban fabric.

#### 4. Concluding remarks

Addis Ababa has been expanding at a very high rate, with significant temporal and spatial variations. Given the current rate of settlement expansion, it is estimated that the whole of the expansion area will be built-up in a few years, and that it will continue to expand well beyond the current boundary, as has already become evident in some parts of the city.

Urban settlement expansion has been also rapidly taking place in the study *Kebele*. The causes could be many, but only demographic (population growth) and urban development practice problems of the city government were considered.

The major contributor of population growth for Addis Ababa as a whole has been in-migration; natural increase has been low. While the rate of growth has been high, it has recently started a general decline. In contrast, the growth rate for the study *Kebele* is high. This was mainly the result of in-migration to the *Kebele* both in the form of local redistribution and in the form of direct migrants to the *Kebele* from out of Addis Ababa. Since in-migrants to Addis Ababa constituted the largest contribution to the growth of the city as a whole, it follows that most of those who moved to the *Kebele* through local redistribution are also migrants, who first arrived in other parts of the city and then subsequently moved to *Kebele* 15 (most not from inner city areas).

The city's growth has also been significantly accelerated by the prevailing haphazard and inefficient urban development practice adopted by the government. Although the city government claims that it is trying to adopt a spatially sustainable city development scheme, its practice has run counter to this intention.

In consequence, settlement expansion has been possible at the cost of the loss of agricultural land surrounding the city. This, in turn, has led to the loss of the agricultural livelihood of farming households in the city fringe. If

the current trend of expansion continues, farmers beyond the current boundary of the city will also be seriously affected. The rules and regulations by which the farmers surrender the land to the city government suffer from a number of problems. The bases upon which compensation is calculated make the displaced farmers disadvantaged. As a result, the amount of compensation paid to displaced peasants is very low. In addition, the issues of reconstruction or rehabilitation are not properly addressed.

The combined effect of all of the problems is that the large majority of the affected peasants have become worse off through being landless, jobless, food insecure and nearly homeless. If measures are not taken to reverse the situation before the problem becomes deeply rooted, it is most likely that the city will continue to encounter additional socio-economic problems, and that the vision of creating livable and healthy city will be unlikely to be achieved.



## References

- Becker, C. 1998. "Urban Fields in Africa: Access to the Urban Environment in Addis Ababa & Ouagadougou" in Zewdie and Zeleke (eds.), *Urban Fields Development in Ethiopia and Other Related Issues*, Addis Ababa :
- Birkie Y. 1998. "The History of Urban Morphology and Landuse in Ethiopia in the Context of Changing Land Policies" in Zewdie S. and Zeleke Z. (eds.) *Urban Fields Development in Ethiopia and Other Related Issues*, Addis Ababa
- CGAABEP. 2004. Addis Ababa Mini Atlas: Environmental Approach of the Urban Dynamics (unpublished)
- CGAABWUD. 1989E.C. Compensation Payment Study for Bole-Bulbula, Mekanisa and Keranio Projects (unpublished material in the municipal library)
- CSA. 1984. *The 1984 Population and Housing Census of Ethiopia* (Statistical Report)
- CSA .1988. Statistical Abstract
- CSA. 1994. *The 1994 Population and Housing Census of Ethiopia* (statistical report)
- CSA. 2003. *Ethiopian Agricultural Sample Enumeration 2001/02 Results*
- CSA. 2004. *Annual Abstract*
- Falge, C. et al. 2000. The Impact of Population Explosion on Urban Management and Living Conditions in Addis Ababa: With Special Emphasis on Migration (unpublished material in the municipal library).
- Feleke, T. 1999. The Impacts of Urban Development on a Peasant Community in Ethiopia: The Case of Yeka Tafo, (MA Thesis in Anthropology, AAU)
- Mekete B. 1990. "Spatial Aspects of Urbanization in Ethiopia with Emphasis on the Primate Pattern of Urban Development" *Ethiopian Journal of Development Research*, Vol. 12, N<sup>o</sup> 2.
- Mengistu W. & Sjoberg, O (1999), "Socialism and Urbanization in Ethiopia, 1975-1990: A Tale of Two Kebeles." *International Journal of Urban & Regional Research*, vol. 23, No.1.

- Minwuyelet M. 2004. City Expansion, Squatter Settlements and Policy Implications in Addis Ababa: The Case of Kolfe Keranio Sub-City (MA Thesis in Geography & Environmental Studies, AAU)
- NUPI., 1998. A Report on the Action Area Plan in Kotebe District (unpublished material in the National Urban Planning Institute)
- ORAAMP. 2000. Proceedings of the Workshop on Population Projection of Addis Ababa
- ORAAMP. 2002. Addis Ababa in Action: City Development Plan 2001-2010 (Executive Summary)
- Tegegne G. 2000. Policy Environment Assessment for Urban Planning in Addis Ababa, in Bureau of Works and Urban Development (unpublished)
- UNDP/UNCHS, Capacity Building for Sustainable Urban Development in Ethiopia: An Overview of Urban Poverty in Addis Ababa ([www.unchs.org/cdrom/governance/html](http://www.unchs.org/cdrom/governance/html))
- UNOCHA. 2003. Ethiopia: A Country Facing Huge Urban Population Boom ([www.irinnews.org/report.asp?ReportID=33039](http://www.irinnews.org/report.asp?ReportID=33039))