

# Characteristics of Squatter Houses in Burayu Town Adjoining Addis Ababa, Capital City of Ethiopia

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## Abstract:

Expansion of squatter settlements and burgeoning of slum are among the challenges being posed by rapid rate of urbanization especially in developing countries like Ethiopia. Burayu town is one of the fastest growing towns in Oromia National Regional State of Ethiopia. The town is located about 15 kilometers from the center of Addis Ababa metropolis, the capital of Ethiopia. The population of Burayu town was 4,138 in 1984; 10,027 in 1994; 63,873 in 2007 (Census) and has grown to 150,000 in 2014 (estimated), showing that the population of the town has increased by more than 36 folds within the past 20 years. The town is characterized by many land related problems like proliferation of squatter settlements, expansion of slums and other illegal land developments. This article tries to identify characteristics of squatter houses in Burayu town in relation to location of the houses in environmentally sensitive areas, construction materials of the houses and accessibility of the houses to public utility services and facilities. By random purposive sampling method, 246 squatter households were selected from different social segments of the squatter households in the town and quantitative data and qualitative information were collected from primary as well as secondary sources and analyzed. The finding indicates that the characteristics of squatter houses in Burayu town are not different from characteristics of other houses which are developed in legal manner in the town. But, 58.1 per cent of the squatter houses are located in environmentally sensitive areas which are prohibited by the Structure Plan Preparation Manual prepared by Ethiopian Ministry of Urban Development and Construction, 2012. The common characteristic is the lack of ownership of the residential land on which the squatter houses have been built.

**Key Words:** *Squatter and squatter houses*

## 3. Introduction:

According to United Nations (2010), the percentage of the world's inhabitants living in urban areas, which was less than 5.0 per cent in 1800, was increased to 50.5 per cent in 2010 and is predicted to reach 65.0 per cent in 2030. Consistent with this report, urban growth will be quite rapid in developing countries especially in cities and towns of Africa and Asia, which are currently less urbanized. Smith and Wang (2007) pointed out that with urban growth rate of 3.4 per cent, Africa is the fastest urbanizing continent in the world, and in 2030 it will end being principally rural. They also depicted that rapid rate of urbanization and low level of urbanization is posing challenges like the burgeoning of new kinds of slums, the growth of squatter settlements and other forms of illegal land developments all around the rapidly expanding cities of the developing world. In harmony with Smith and Wang (2007) and the report from United Nations (2010), more than one billion of the world's city residents live in inadequate housing, mostly in slums and squatter settlements. According to Smith and Wang (2007), close to 37.0 per cent of the urban population in the developing world and 62.0 per cent of the urban population in Sub-Saharan Africa lives in slum, squatter settlements and in inequitable and life-threatening conditions.

Ethiopia remains among one of the least urbanized countries in the world. Using the Ethiopian Central Statistical Agency's definition of urban, which includes urban centers as small as 2,000 in population and according to Population and Housing Census of the respective years, urbanization level of Ethiopia was 11.4 per cent (4.3 million) in 1984, 13.7 per cent (7.4 million) in 1994 and in 2007 it increased to 16.2 per cent (11.9 million). The annual urban population growth rate of the country was estimated to be above 4.3 per cent. As Ministry of Urban Development and Construction of Ethiopia (2011) estimated, by 2020 about 30.0 per cent or 22 million people will account for the urban population of the country. According to Central Statistical Agency (2007), Oromia

National Regional State is the largest in Ethiopia with 3.4 million urban populations which is 28.0 per cent of urban population of Ethiopia in 2007. According to Ministry of Urban Development and Construction (2011), it is expected to increase to 5.3 million in 2015. Oromia National Regional State accounts 41.0 per cent of the total urban centers of Ethiopia.

As per definition of Oromia National Regional State and as recognized by Ministry of Urban Development and Construction, Burayu town is one of the first grade towns in Oromia National Regional State. Burayu town is very proximate to Addis Ababa metropolis, the capital of Ethiopia. It is located about 15 KM from the Office of Addis Ababa City government in Piyassa towards the North West on the way to Ambo immediately outside the city limits of Addis Ababa metropolis, the capital of Ethiopia (Fig 1).

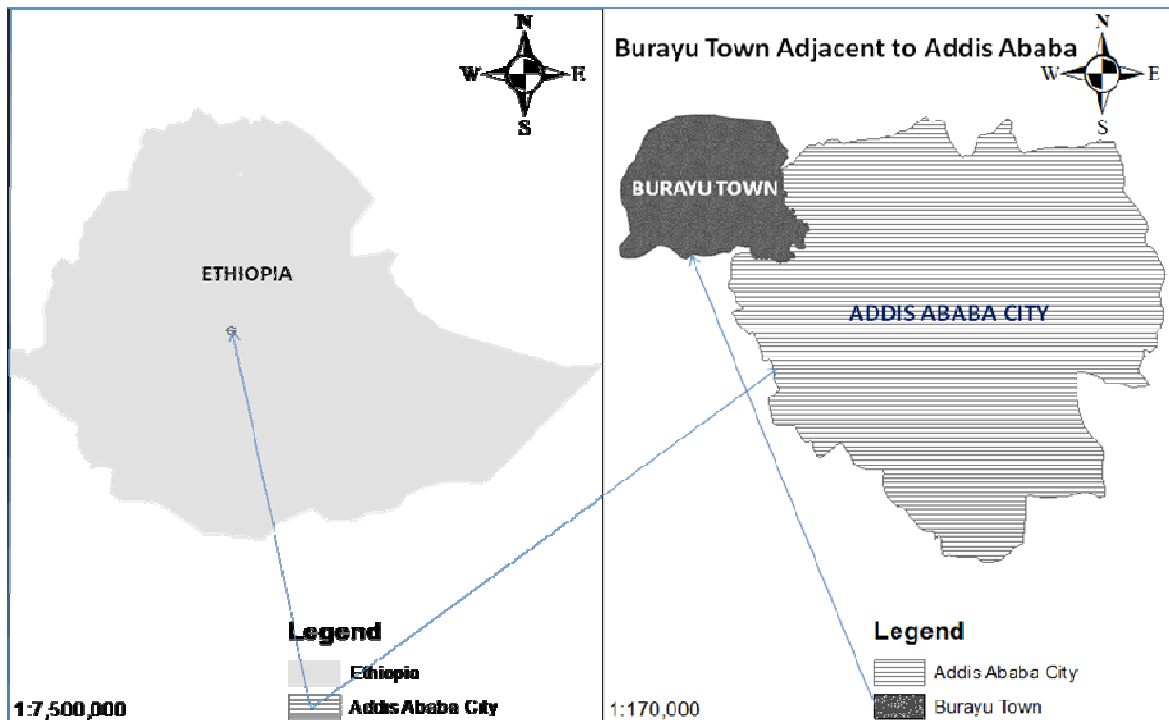


Fig 1 Location of Burayu Town in Ethiopia Adjacent to Addis Ababa City

Source: Based on Maps from Oromia National Regional State, Bureau of Finance and Economic Development, 2012

According to census, the population of Burayu town was 4,138 in 1984; 10,027 in 1994, 63,873 in 2007 and 100,200 in 2010 (estimated). Burayu town administration has estimated that the population of the town has grown to more than 150,000 in 2014 showing that the town is growing very fast. Urban Development Bureau of Oromia National Regional State (2009) illustrated as development and expansion of squatter settlements and other illegal land developments in major towns of Oromia National Regional State became great issue. Because of the conflict of squatters' need with norms and standards of urban planning, the town administration had been taking actions as responses to squatter settlements including clearing the land by demolishing the structures. Legalization of squatter settlements and related illegal land development activities in major towns of Oromia National Regional State is reported by Oromia Ethics and Anti-Corruption commission as a sector highly vulnerable to corruption involving facilitation payments as well as bribes in order to make these as officially permitted or do not demolish the settlements. In case of Burayu town, most of the conflicts are in legal courts and majority of the imprisonments are in different police stations, in the town are pertaining to cases related to squatter settlements which do not have legal documents. Environmental policy of Ethiopia (1997) indicated that the serious deficiencies in sanitation services and the inadequacy of sewerage infrastructure and random defecation in urban areas in the vicinity of Addis Ababa have created dangerous health and environmental problems. The objective of this article is specifically to point out the main characteristics of squatter houses with regard to location of the houses in relation to environmentally sensitive areas, construction materials of the houses and accessibility of the houses to public utility services and facilities. By the random purposive sampling method, 246 squatter households were selected from different social segments and primary data was collected. The secondary data was taken from published or unpublished records of the town administration.

## 1.2 Squatting and Legal Framework in Ethiopia:

As per UN-HABITAT (2002), Ethiopia is one of the states incorporating international human rights obligations (one of which is housing) into its national constitution. Article 90 of the Ethiopian constitution declared that:

*“To the extent the country’s resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security.”*

South Africa, Indonesia, Argentina, Portugal and Philippines are other best examples of states incorporating international human rights obligations into their respective constitutions. The 1995 Ethiopian constitution confirms the state and public possession of land in Ethiopia. In line with this constitution, the right of every Ethiopian citizen to possess private property (including immovable property he/she builds on the land) is guaranteed and right to own land as well as natural resources belongs only to the state and the people and shall not be subject to sale or to other means of exchange. Land delivery systems in Ethiopia have undergone different land tenure systems. The free hold land tenure system (pre 1975), public controlled permit system (1975-1992) and public lease hold system (introduced in 1993; and revised in 2002; and currently repealed by new urban lease holding Proclamation 721/2011). Previously, there were four means of urban land acquisition: auction, negotiation, assignment and lottery method. Now, since most of these have opened a door for corruption, the law recognized tender (auction) and allotment (land lease transfer without auction) as the only two basic means of leasehold right transfer. Proclamation 574/2007 that concerns with urban planning legislation provides “no development activity may be carried out in an urban center without a prior development authorization.” The urban land administration shall ensure that the land on which the building is going to be erected must have been acquired through legal means and the building permit. This authorization is needed not only for the erecting of new buildings but also for modifying and demolishing them as well.

According to Minwuyelet (2005), squatter settlements in Ethiopia have emerged during the mid of 1970s. Poor implementations of regulations related to informal settlements are identified as the cause for development and expansion of squatter settlements in Addis Ababa (Daniel, 2006). Daniel identified eight distinct steps in the development of informal settlements in Addis Ababa metropolis. These are: 1) Considering master plan of the city and rules of regularization of informal settlements, the informal sub-dividers together with some corrupted planning technicians select site (exploration); 2) Raw land acquisition by informal sub-dividers and farmers (other land users); 3) Site clearance (plot preparation and block division) by the informal subdivides together with those corrupt planning technicians; 4) Commercialization (transaction) by informal subdivides, brokers and buyers; 5) Parcel division (plot transfer); 6) Building (Autonomous construction); 7) Social organization (“Eddir”) and 8) Settlers start to create symbolic relation in collective development of infrastructure, services and utilities. Even though municipal services/facilities are hardly available/sufficient even in large cities what to talk of small and medium towns in most of the third world countries (Jafri, 2009), the problem is worse in squatter settlements Kessides (2006). According to Kessides (2006), squatter settlements do have peculiar physical, economical, environmental and legal characteristics which make them different from legally constructed houses.

## 4. Characteristics of Squatter Houses in Burayu Town:

Burayu town is located in Oromia National Regional State around the central part of Ethiopia. It is located about 15 KM from the Office of the City government of Addis Ababa metropolis, the capital of Ethiopia immediately outside the city limits of Addis Ababa city towards the North West on the way to Ambo. Burayu town is characterized by unplanned housing development like proliferation of squatter settlements. According to the estimate of the town administration, the total number of residential houses in the town are 23,043 of which 12,572 (54.6 per cent) are informally developed houses (2012). The town administration also indicated that about 7,000 of these informally developed houses in Burayu town are squatters. To address the problems related to these, Burayu town administration has been taking curative actions including demolishing of squatter settlements and regularizing significant number of houses in different years. These efforts have achieved little in terms of addressing the problems.

Location is one of the most important aspects which determine housing value. Different studies indicate that, the people want to construct squatter houses/illegal houses on and around sensitive areas which are not usually occupied by anyone else. These environmentally sensitive areas include high tension electric line, river, industry, solid waste disposal site, flood areas, hilly areas, near water reservoirs, areas prone to landslides and flooding, protected forests and other susceptible areas. The 2012 revised version of Structure Plan Preparation Manual prepared by Ministry of Urban Development and Construction of Ethiopia also prohibited uses of land for large scale industries, storage and warehouses, military establishments and ammunition stores, waste treatment plants and landfill sites, cemeteries, transport terminals, quarries, universities, colleges, hospitals and stadiums in and around residential areas. Burayu town also has most of the sensitive areas indicated above. As an example, the

next map shows high tension electric line, rivers, streams and gullies in the town. Some of the sample squatter houses are located in the neighborhood of these sensitive areas.

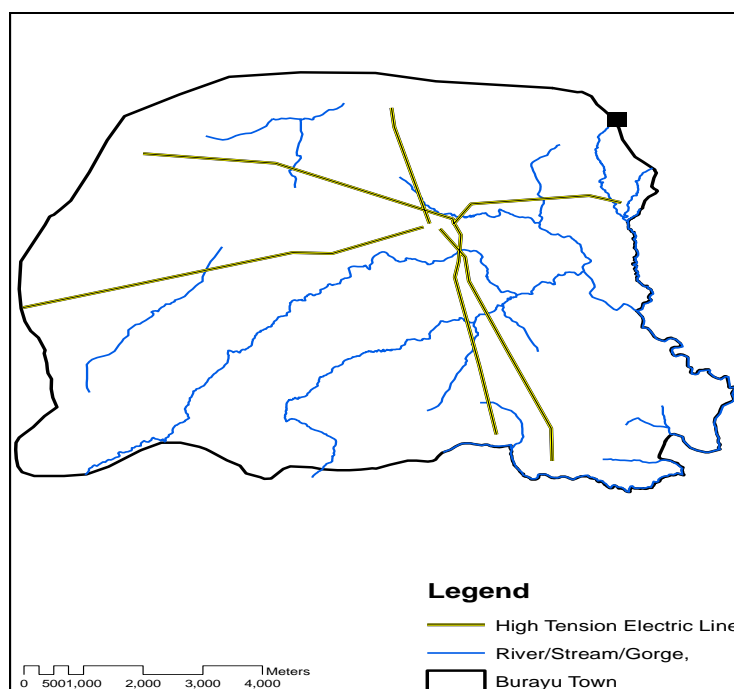


Fig 2 High Tension Electric Line, Rivers, Streams and Gullies in Burayu Town

Source: Based on Maps from Oromia National Regional State, Oromia Urban Planning Institute, 2014

As can be seen on table 1 below, 36.2 per cent of the sample squatter houses are located in the buffer areas of river, 16.7 per cent of the sample squatter houses are located in the buffer areas of high tension electric line and 21.5 per cent around different solid waste disposal sites. The squatter houses which are located in different industrial zones of the town, adjacent or around hilly and flood areas are 12.2 per cent, 9.8 per cent and 14.6 per cent respectively.

Table 1 Location of Sample Squatter Houses in the Neighborhood of Sensitive Areas of Burayu Town, 2014

Sample Squatter Houses in the Neighborhood of:	Sample Squatter Houses Affected from Total Sample 246	
	Number	Percentage
Sensitive Areas		
River	89	36.2
High Tension Electric Line	41	16.7
Industry	30	12.2
Hilly Areas	24	9.8
Solid Waste Disposal Site	53	21.5
Flood Areas	36	14.6
Other Sensitive Areas	52	21.1
Total Squatter Houses in Sensitive Areas	143	58.1
Total Squatter Houses in Non sensitive Areas	103	41.9

Source: Based on Survey Conducted by the author in 2014

Moreover, 21.1 per cent of the sample squatter houses are located in neighborhoods of other sensitive areas which are not compatible for residential purpose. These sites include around cemeteries and religious institutions, a dam (known by the name Gefersa Dam), around quarry sites, around poultry and dairy farms and in the neighborhood of degraded areas like gullies and others. As seen in table 1 above, from the total sample 246 squatter houses, 143 or 58.1 per cent of squatter houses have sensitive areas in their neighborhood.

Family size of the sample squatter houses in Burayu town ranges from 2 to 8 persons per household. According to table 2 below, the total number of persons living in these 246 sample squatter houses is 1,016 which mean about 4.13 persons per house. According to Central Statistics Authority (2007), an average of 4.18 persons are

living per house and Central Statistics Authority (2010) pointed out that the average number of persons living per house in urban center of Ethiopia and urban center of Oromia National Regional State is 3.9 and 3.8 respectively. Compared to this average of the total number of persons living per house in Burayu town, the members living in the sample squatter houses are not overcrowded. On the other hand, the total area occupied by these 246 sample squatter houses is 73,139 m<sup>2</sup>. From this total area, the average area occupied by one squatter house is 297.3 m<sup>2</sup> and using the total population of persons living in these sample squatter houses (1,016), the share for a person is 72 m<sup>2</sup>.

Table 2 Family Size of Sample Squatter Households in Burayu Town, 2014

Family Size (Number of Persons Living in Squatter Houses)	No. of Sample Squatter Houses	Per cent
2	17	6.9
3	46	18.7
4	99	40.3
5	63	25.6
6	15	6.1
7	5	2.0
8	1	0.4
Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

Burayu town administration allows a single family to have a plot for housing which ranges from 105m<sup>2</sup> up to 500 m<sup>2</sup>. The maximum area i.e. 500 m<sup>2</sup> can be allowed during legalizing of the earlier unplanned land which was under farming. Based on this, it can be seen that the sample squatter houses are not covering very large plots as the average area which is occupied by one squatter household is 297.3 m<sup>2</sup>.

### 2.1 Construction Material of Sample Squatter Houses in Burayu Town:

Construction material is the other indicator of the characteristics of the squatter houses in Burayu town. Based on Ethiopian Central Statistics Authority (2007), out of 14,679 total houses in Burayu town, walls of 13,013 or 88.7 per cent of houses are made from wood and mud, 851 or 5.8 per cent of houses are made from hollow concert block, walls of 147 or 1.0 per cent of houses are made from stone, walls of 5 or 0.03 per cent of houses are made from bamboo/reed and the remaining 663 or 4.5 per cent of houses are made from others (not specified) construction materials. In sample squatter houses in Burayu town, walls of 127 or 51.6 per cent of the squatter houses are made of wood and mud and walls of 100 or 40.7 per cent houses are made of hollow concert blocks (Table 3).

Table 3 Material Used in Building Walls of Sample Squatter Houses in Burayu Town, 2014

Material Used	No. of Sample Squatter Houses	Per cent
Wood and Mud	127	51.6
Hollow Concert Blocks	100	40.7
Bricks	10	4.1
Plastics	2	0.8
Stone	7	2.8
Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

The number of squatter houses whose walls are made of bricks, stones and plastics are insignificant when compared to the other construction materials, table 3. Still, the quality of construction materials of wall of the sample squatter houses in Burayu town is better than the construction materials of wall of the houses in whole Burayu town reported by the Ethiopian Central Statistics Authority (2007).

In addition, out of 14,679 total houses in Burayu town, Ethiopian Central Statistics Authority (2007) reported that roofs of 14,139 or 96.3 per cent of houses are made from corrugated iron sheet, 495 or 3.4 per cent of houses from grass/thatch, 15 or 0.1 per cent of houses from wood and mud, and the remaining 30 or 0.2 per cent houses are made from other construction materials not specified. Primary data collected from the sample squatter households in Burayu town shows that roofs of 229 or 93.1 per cent of the squatter houses of the total surveyed are made up of corrugated iron sheet and the remaining 17 or 6.9 per cent of the houses are made from plastic,

concrete or from wood and grass. Roofs of 15 houses which are made from plastics, wood and grass are not durable, environmentally not suitable and it is prone to fire (see table 4).

**Table 4 Material Used in Building Roofs of Sample Squatter Houses in Burayu Town, 2014**

Material Used	No. of Sample Squatter Houses	Per cent
Corrugated Iron Sheet	229	93.1
Plastic	6	2.4
Concrete	2	0.8
Wood and Grass	9	3.7
Total	246	100.0

*Source: Based on Survey Conducted by the author in 2014*

As per government data, out of 14,679 total houses in Burayu town, floors of 9,263 or 63.1 per cent houses are made from mud, 4,728 or 32.2 per cent houses made from cement screed, 370 or 2.5 per cent houses are made from cement tile/brick tile, 10 or 0.1 per cent houses are made from bamboo/reed, 25 or 0.2 per cent houses from wood planks and the remaining 283 or 1.9 per cent of the houses were made from other not specified construction materials.

Only mud is used in construction of 69.1 per cent of floors of sample squatter houses in Burayu town. In rest 30.9 per cent of sample squatter houses ceramics, cement/concrete, cement bricks, tails, bamboo/reed and plastic tiles are used in floors (see table 5).

**Table 5 Material Used in Building Floors of Sample Squatter Houses in Burayu Town, 2014**

Material Used	No. of Sample Squatter Houses	Per cent
Mud	170	69.1
Ceramics	11	4.5
Cement/Concrete	43	17.5
Cement Bricks Tails	4	1.6
Bamboo/Reed	2	0.8
Plastic Tiles	16	6.5
Total	246	100.0

*Source: Based on Survey Conducted by the author in 2014*

About 30.5 per cent of the sample squatter houses do not have ceilings and the remaining 69.5 per cent of sample squatter houses in Burayu town have ceilings made from different materials. Out of those which have ceilings, 72 or 29.3 per cent of houses are made from plastic, 68 or 27.6 per cent ceiling of houses are made from hard board/ply wood, and 30 or 12.2 per cent ceiling of houses are made from asbestos sheet (Table 6).

**Table 6 Material Used in Ceiling of Sample Squatter Houses in Burayu Town, 2014**

Material Used	No. of Sample Squatter Houses	Per cent
Has no Ceiling	75	30.5
Asbestos Sheet	30	12.2
Hard Board/ Ply Wood	68	27.6
Concrete	1	0.4
Plastic	72	29.3
Total	246	100.0

*Source: Based on Survey Conducted by the author in 2014*

The Ethiopian Central Statistics Authority (2007) did not classify the housing units based on the materials used in ceilings of the houses. Yet, in relation to other formal housing units in Burayu town, ceilings of the sample squatter houses are not bad.

## **2.2 Number of Rooms in Sample Squatter Houses:**

The total number of rooms in these total 246 sample squatter houses is 694 or average numbers of rooms per house are 2.8. If we take total population living in these sample squatter houses in Burayu town which is 1,016, then the average number of persons living per room is about 1.5. In both the cases, it is better than the data of the 2007 Ethiopian Central Statistics authority which reported that the average room per household and the average

number of persons living in a room in Burayu town are 2.6 and 1.7 respectively. As a whole in Burayu town, more than half or 56.9 per cent of the sample squatter houses have two to three rooms to live. See table 8.

Table 7 Number of Rooms in Sample Squatter Houses in Burayu Town

Number of Rooms	No. of Sample Squatter Houses	Per cent
One	39	15.9
Two	78	31.7
Three	62	25.2
Four	35	14.2
Five	24	9.8
More than five	8	3.2
Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

### 2.3 Time Taken in Construction of Sample Squatter Houses:

Squatter houses are locally known as “Yechereka Betoeh” referring to the housing units with roofs which had to be completed and even inhabited overnight before government forces arrive and take action which is usually demolition. According to responses of the sample squatter households in Burayu town, none of the squatter households are constructed overnight. Construction materials of floors, walls, roofs and ceilings indicate that it is not feasible to complete construction of these squatter houses in overnight. Table 7 below indicates that for 104 or 42.3 per cent squatter houses took less than a year to complete the construction of their squatter houses and for 81 or 33.0 per cent of the squatter houses; it took 1-3 years. Similarly, to complete construction of their squatter houses, it took 4-5 and 6-7 years for 12.6 per cent and 7.3 per cent of the squatter houses respectively.

Table 8 Time Taken in Constructing the Sample Squatter Houses in Burayu Town, 2014

Time Taken in Construction	No. of Sample Squatter Houses	Per cent
< 1 Year	104	42.3
1-3 Years	81	33.0
4-5 Years	31	12.6
6-7 Years	18	7.3
More than 7 Years	6	2.4
Not Yet Completed	6	2.4
Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

This means that the sample squatter houses in Burayu town were constructed during day time and it took long time. This reveals that the preventive action of the town administration is weak or the government body neglected it. But, after the squatters constructed and inhabited, the town administration is taking action on some of the squatter households. For example, only this year in 2014, more than 1,000 squatter houses are demolished in Burayu town!

### 2.4 Public Utility Services/Facilities around the Sample Squatter Houses in Burayu Town:

About 23.2 per cent of the sample squatter houses in Burayu town do not have electric connection, 21.1 per cent do not have access to toilet facility, 9.8 per cent have no kitchen facility and 50.8 per cent have no bathroom. Those who have access to electricity, toilet, kitchen and bathroom facilities are 76.8 per cent, 78.9 per cent, 91.2 per cent and 49.2 per cent respectively. About 116 or 47.2 per cent of the squatter houses use private tap water, 63 or 25.6 per cent share tap water and the remaining 67 or 27.2 per cent of the squatter houses obtain water from other sources (Table 9). According to Ethiopian Central Statics Authority (2007), from all 14,679 housing units in Burayu town, 4,829 or 32.9 per cent housing units have their own water taps, 2,997 or 20.4 per cent houses obtain drinking water from unprotected well or spring, 2,197 or 15.0 per cent housing units obtain drinking water from tap inside their compound, 1,820 or 12.4 per cent houses obtain drinking water from protected well and the remaining 2,836 or 19.3 per cent housing units obtain drinking water from other sources which are not specified.

Table 9 Availability of Basic Facilities in Sample Squatter Houses in Burayu Town, 2014

Facilities	Type of Facilities	No. of Sample Squatter Houses	Per cent
Drinking water	Tap Water Private	116	47.2
	Tap Water Shared	63	25.6
	Other Sources	67	27.2
	Total	246	100.0
Electricity	Electricity Meter Private	125	50.8
	Electricity Meter Shared	64	26.0
	No Electricity	57	23.2
	Total	246	100.0
Toilet	Flush Toilet Private	20	8.1
	Flush Toilet Shared	6	2.4
	Pit Latrine Private	53	21.6
	Pit Latrine Shared	8	3.3
	Dry Latrine Outside the House	107	43.5
	No Toilet Facility	52	21.1
	Total	246	100.0
Kitchen	Modern Kitchen Private	41	16.7
	Modern Kitchen Shared	3	1.2
	Traditional Kitchen Private	176	71.5
	Traditional Kitchen Shared	2	0.8
	No Kitchen Facility	24	9.8
	Total	246	100.0
Bathroom	Bathroom Tap Private	103	41.9
	Bathroom Tap Shared	18	7.3
	No Bathroom	125	50.8
	Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

According to structure plan manual (revised version, 2012) by Ethiopian Ministry of Urban Development and Construction, educational services from kindergarten to secondary schools, health services from health post to health center, neighborhood markets ('Gulits') and shopping areas, small and medium scale manufacturing and warehouses, recreation and entertainment centers, small administrative offices and business worship places are recommended for all types of residential areas. Most of the sample squatter houses in Burayu town do not have access to public utility, services, and facilities around the sample squatter houses. Especially, out of the 246 sample squatter houses, 207 or 84.1 per cent squatter houses do not have street light around their house, 206 or 83.7 per cent squatter houses do not have recreation centers/areas and 210 or 85.4 per cent squatter houses do not have public toilet around their house. Similarly, most of the squatter houses do not have access to public health center, pharmacy, public toilet, waste disposal sites, children's play grounds, kindergarten, Primary School, Secondary School, churches/mosques or other religious institutions, electric office, market place, shops for basic goods, flour mill, public transport station, roads for motorized transportation and local police stations (Table 10).



Table 10 Availability of Public Utility Services/Facilities around the Sample Squatter Houses in Burayu Town, 2014

Public Utility Service/Facilities	Public Utility Service/Facilities			
	Available		Not available	
	No. of Sample Squatter Houses	Per cent	No. of Sample Squatter Houses	Per cent
Public Health Center	60	24.4	186	75.6
Pharmacy	137	55.7	109	44.3
Public Toilet	36	14.6	210	85.4
Waste disposal sites	53	21.5	193	78.5
Recreation centers/areas	40	16.3	206	83.7
Children's Play Grounds	85	34.6	161	65.4
Kindergarten (KGs)	100	40.7	146	59.3
Elementary School (Privet)	69	28.0	177	72.0
Public Primary School	166	67.5	80	32.5
Secondary School	90	36.6	156	63.4
Churches/Mosques or religious places	90	36.6	156	63.4
Street Light	39	15.9	207	84.1
Electric Office	68	27.6	178	72.4
Market place	66	26.8	180	73.2
Shops for Basic Goods	138	56.1	108	43.9
Flour mill	96	39.0	150	61.0
Public transport station	51	20.7	195	79.3
Roads for Motorized Transportation	74	30.1	172	69.9
Police stations (local)	69	28.0	177	72.0

Source: Based on Survey Conducted by the author in 2014

There are different main roads passing through Burayu town to different parts of Addis Ababa and other parts of Oromia National Regional State. These roads are to Western part of Ethiopia like Holeta, Ambo and others, to Sululta and to Addis Ababa from different directions (Fig 3).

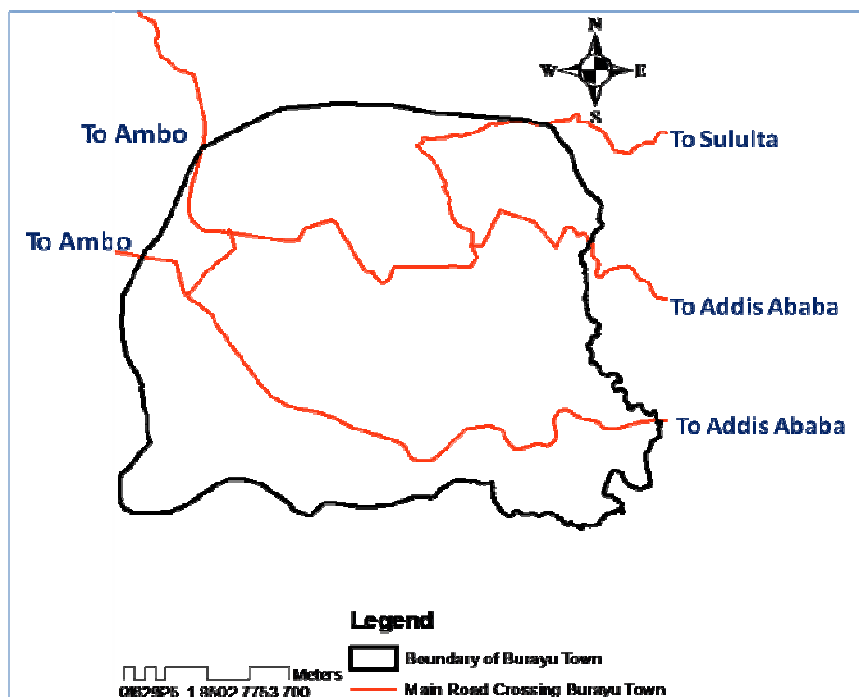


Fig 3 Main Roads Passing Through Burayu Town

Source: Based on Maps from Oromia National Regional State, Oromia Urban Planning Institute, 2012

People have to walk about 1.5 kilometers or less from 96 or 38.9 per cent sample squatter houses to reach the nearby main roads. About 92 or 37.5 per cent of the sample squatter houses are more than two kilometers far

from the nearby main road. The remaining 58 or 23.6 per cent squatter houses are about 1.5 - 2.0 kilometers far from the nearby main road (Table 11). In fact, there is no proper connecting path to these main roads.

Table 11 Distances of Sample Squatter Houses from the Nearest Main Road in Burayu Town, 2014

Distance in Meter	No. of Sample Squatter Houses	Per cent
< 500	6	2.4
501- 1000	22	8.9
1001- 1500	68	27.6
1501- 2000	58	23.6
2001-2500	56	22.8
2501-3000	26	10.6
> 3000	10	4.1
Total	246	100.0

Source: Based on Survey Conducted by the author in 2014

Burayu town is compact in shape, as its length and width ratio is 1.21. Horizontally, Burayu town is about 11.5 kilometers long from East to West and about 9.5 kilometers wide from North to South.

$$\frac{\text{Longest Horizontal Length of the Town}}{\text{Longest Horizontal Width of the Town}} = \frac{11.5 \text{ KM}}{9.5 \text{ KM}} = 1.21$$

Compactness of the town shows that the more compact an urban center is the easier for the local government to deliver services and infrastructure to residents of that urban center. It is known that value of perfect compactness is 1.00 and the higher or the lower the value the less compact it is and it is difficult to deliver services and infrastructure which can be accessible to most of the residents of the town. In this regard, Burayu town administration did not use this opportunity to provide public utility, services, and facilities around the sample squatter houses which are ignored.

## 5. Conclusion and Suggestion:

Because of close proximity to Addis Ababa, the capital city of Ethiopia, Burayu town is growing very rapidly (from the population size of 4,138 in 1984 to more than 150,000 in 2014). This population growth is more than 36 times within 20 years and still many people want to have their residence in this town. Total number of residential houses in the town is 23,043 of which 12,572 or 54.6 per cent are informally developed houses (2012). According to Burayu town administration, about 7,000 of these informally developed houses are squatters in Burayu town. The finding indicates that the characteristics of squatter houses in Burayu town are not different from characteristics of other houses which are developed in legal manner except 58.1 per cent of the squatter houses are located in environmentally sensitive areas. It is a clear cut indication that the demand of housing is not in the agenda of local government and there are no easy procedures to acquire a residential plot in the town. People are compelled to go for illegal occupation of residential plots and construct the unplanned and unapproved houses. Therefore, demolition of squatter houses is not justified; rather the local government should give compensation and adopt open housing policy by which general people may get residential plots easily. The basic principle should be that all the citizens are entitled to have a proper residence to live.

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