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INTERNATIONAL COOPERATION AGENCY (ICA)
ORGANISATION OF AFRICAN STATES
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

1996 STUDY

ON

ADDIS ABABA FLOOD CONTROL PROJECT

IN

THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

FINAL REPORT

VOLUME I

PREPARING REPORT

OF

1996 STUDY

ON ADDIS ABABA FLOOD CONTROL PROJECT

1996

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INTERNATIONAL COOPERATION AGENCY

ADDIS ABABA

ORGANISATION OF AFRICAN STATES

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
REGION 14 ADMINISTRATION
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**

**THE STUDY
ON
ADDIS ABABA FLOOD CONTROL PROJECT
IN
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**

**FINAL REPORT
VOLUME III
SUPPORTING REPORT
OF
PHASE I STUDY
(MASTER PLAN STUDY)**

MAY 1998

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NIKKEN CONSULTANTS, INC.**

LIST OF REPORTS

- EXECUTIVE SUMMARY (*In Japanese*)
- VOLUME I EXECUTIVE SUMMARY (*In English*)
- VOLUME II MAIN REPORT (*In English*)
- VOLUME III SUPPORTING REPORT OF PHASE I STUDY
(MASTER PLAN STUDY) (*In English*)
- VOLUME IV SUPPORTING REPORT OF PHASE II STUDY
(FEASIBILITY STUDY) (*In English*)
- VOLUME V DATA BOOK (*In English*)



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ON
ADDIS ABABA FLOOD CONTROL PROJECT
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THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA**

**SUPPORTING REPORT
OF
PHASE I STUDY
(MASTER PLAN STUDY)**

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**THE STUDY ON ADDIS ABABA
FLOOD CONTROL PROJECT**

CHAPTER 1

INTRODUCTION

THE STUDY
ON
ADDIS ABABA FLOOD CONTROL PROJECT
IN
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

CHAPTER 1 INTRODUCTION

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1. INTRODUCTION

1.1 General

This is the Supporting Report of the Phase I Study (Master Plan Study) for the Study on Addis Ababa Flood Control Project in the Federal Democratic Republic of Ethiopia. This Report is prepared in accordance with the Scope of Works for the said Study agreed on October 11, 1996 between the Region 14 Administration of the Government of Ethiopia and the Japan International Cooperation Agency (JICA) responsible for the implementation of technical cooperation programs of the Government of Japan.

1.2 Composition of Report

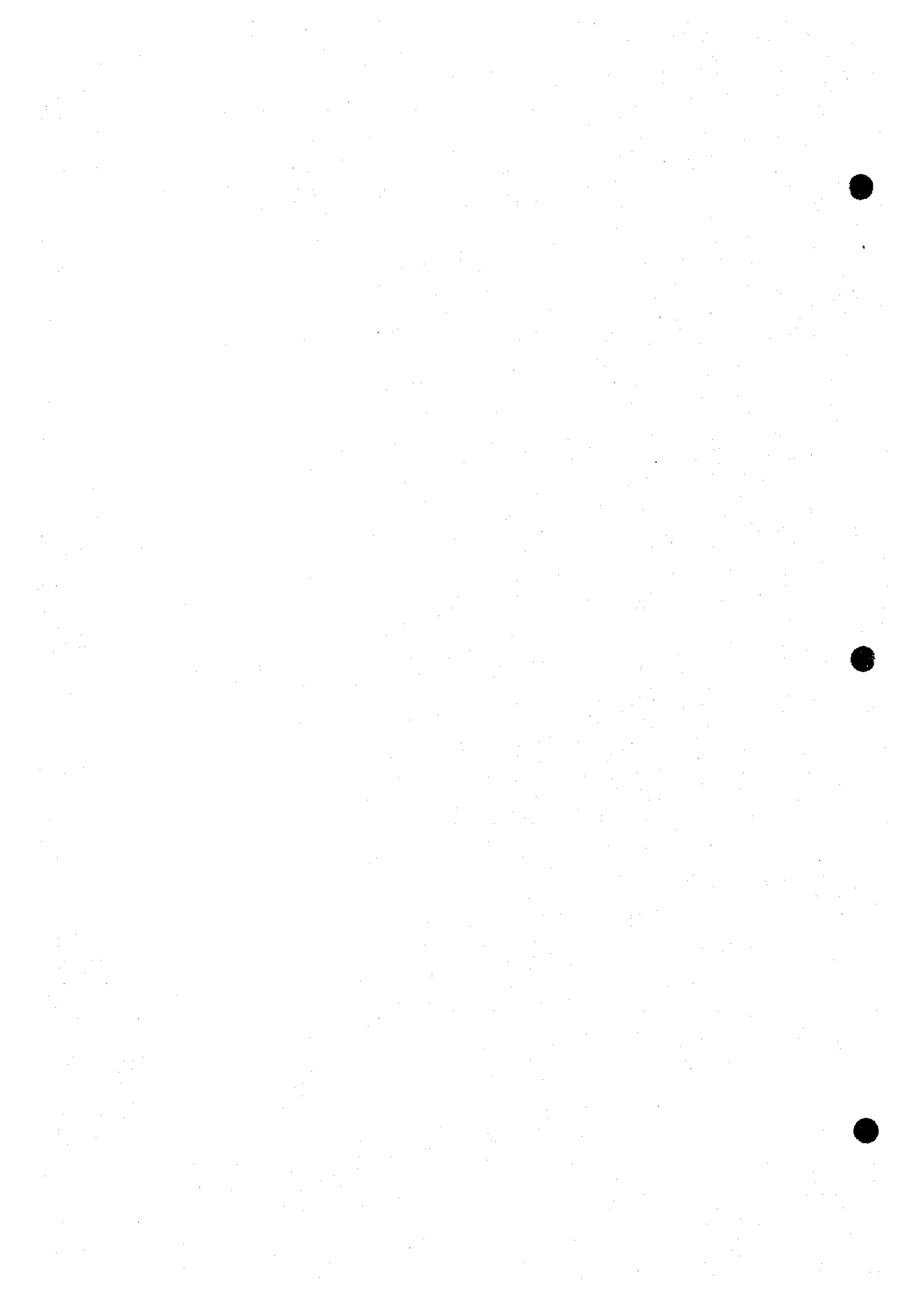
The composition of the Supporting Report of the Phase I Study (Master Plan Study) is as follows.

CHAPTER 1	: INTRODUCTION
CHAPTER 2	: NATURAL SITUATION
CHAPTER 3	: SOCIO-ECONOMY
CHAPTER 4	: PRESENT CONDITION OF STUDY AREA
CHAPTER 5	: FIELD SURVEY AND INVESTIGATION
CHAPTER 6	: RAINFALL AND RUNOFF ANALYSIS
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**THE STUDY ON ADDIS ABABA
FLOOD CONTROL PROJECT**

CHAPTER 2

NATURAL SITUATION



THE STUDY
ON
ADDIS ABABA FLOOD CONTROL PROJECT
IN
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

CHAPTER 2 NATURAL SITUATION

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2. NATURAL SITUATION

2.1 Topography

2.1.1 General

The city of Addis Ababa is the capital city of Ethiopia transferred from Gondar city in 1887, which is called as the heart of Amhara land. The city extends to the central part of west Ethiopian plateau between 8° 55' and 9° 05' of north latitude, and 38° 40' and 38° 50' of east longitude. Figure 2.1.1 shows the topography of the Study Area. The north and west of the city is surrounded by the mountain ridge with altitudes from 3,200 m to 3,000 m above mean sea level (EL). The city spreads to the southern slope of the mountain ridge from EL.3,400 m to 2,350 m.

The lands of the city area in Addis Ababa are drained by the steep major six (6) rivers which originate from the north watershed. These rivers generally flow down from north to south and join to the mainstream of the Akaki river in the far downstream through the lake of Aba Samuel. The Study Area to be contemplated the flood control plan covers the catchment area of the major seven (7) rivers including the West Akaki river with 310 km².

2.1.2 The Study Area

The Study Area of 310 km² is generally characterized into the following three geomorphologic groups, according to ENGINEERING GEOLOGICAL MAPPING OF ADDIS ABABA by Keble Tschayu and Tadesee H. Mariam in the Ethiopian Institute of Geological Surveys (EIGS).

(1) Intoto Ridge

The mountain ridge extending over the north and east of the Study Area is called as Intoto Ridge. Altitudes of the ridge are above EL. 2,600 m and the highest peak is EL. 3,200 m of Mt. Yeka Sire. The ridge was formed by volcanic eruption during the lower Miocene of the middle Tertiary Period classified into Cenozoic era on the geological age, which is estimated at about 20 million years ago.

Owing to Intoto Ridge, the area is given such mild climate, adequate rainfall and plenty of vegetation as comfortable environment for the people.

(2) Flat and Undulating Topography

Flat and Undulating Topography spreads to the southern slopes of Intoto Ridge, which is topographically transitional zone. The city area of Addis Ababa with approximately 130 km² situates on this topography. The northern part of the urban area is located on the undulating topography, however, the central and southern parts, on the fairly flat topography. Figure 2.1.2 shows an image profile of the topography in the urban area of Addis Ababa.

The lands of the urban area are deeply dissected by numerous valleys. Six (6) major rivers are generally running towards south through such valleys. This fairly flat topography gradually slopes to the south-east.

No remarkable colluvial or alluvial fan exists on this topography. Although, small volume of alluvial materials such as silty clay can be observed at the confluence with the Little Akaki river in the lower West Akaki river, and in the lower reaches of the Bantiyketu river and Kebena river.

(3) Young Volcanic Mountains and Hills

Young Volcanic Mountains and Hills stretch over as watershed from west to south-east of the Study Area. Altitudes of this zone vary from EL. 3,400 m to 2,500 m. According to the said report, it says that the Young Volcanic Mountains and Hills were formed during the upper Pliocene, about 3 million years ago.

2.2 Geology

2.2.1 General

The geological feature of Africa is generally characterized by fairly flat plane which is called as Shield formed in the Paleozoic era (1 to 3 billion years ago). In the east Africa, the flat plane was elevated due to orogenic movement caused by mantle rising. As the

result, Ethiopian plateau composing of volcanic materials was formed during the lower Miocene (20 million years ago) of the middle Tertiary on the geologic age.

Due to the aforesaid flat plane elevated in the east Africa, the large scale geotectonic line called as African Rify Valley was simultaneously formed. The Rift Valley strikes south-west to north-eastward in the far eastern area of Addis Ababa city, and divides Ethiopian plateau into two parts of the east and west plateau.

Besides those in the Ethiopian Rift Valley, there are many sub-faults having the approximately same strike with the main faults of NE-SW.

2.2.2 The Study Area

Figure 2.2.1 shows geological map in Addis Ababa. The Study Area is almost covered by volcanic materials as explained in the previous section. The northern part of the Study Area called as Intoto ridge is composed of Termaber basalts. This is called as Intoto cilic and covered with the volcanic top soil materials of about 1 to 2 m thick. The urban area is composed of younger basalts called as Addis Ababa basalts than that of Intoto ridge, and covered with the volcanic top soil materials.

On the other hand, the west part of the Study Area, which belongs to the younger age stratum than the above areas, is mainly composed of Trachey basalts. In the Bole area, a basalt called as ignimbrites is partly found.

In general, top soil materials in the western part of the Study Area will be characterized by thick and soft comparing with those of the northern and eastern parts, except the upstream area of the Kechene river. Therefore, the West Akaki river and upper Kebena river have fairly deep valleys.

2.3 Vegetation

2.3.1 The Country

Land of Ethiopia is composed of diverse coverage; high forest area, woodland area, shrub land area, grassland area, cultivated area, exposed rock area, sand surface area, open water area, swamp and marsh area, urban area, and others.

The woodland region includes planted eucalyptus trees around settlements. The largest area of eucalyptus woodland in the country is around Addis Ababa.

2.3.2 The Study Area

(1) General

The land coverage of the Study Area is characterized with the significant urban area of Addis Ababa, intensively or moderately cultivated area, woodland, and grassland.

(2) Hanku Basin

The upstream basin of the Hanku river, in the most-eastern area in the Study Area is covered with mostly grassland up to the basin boundary. The middle stream basin is composed of the urban area. The downstream basin is again covered with grassland.

(3) Little Akaki and Kebena

The upstream basins of the Little Akaki and the Kebena rivers in the northern part of the Study Area are still covered with mainly woodland. But certain portion of about 10 to 15 % of the upstream basin is an intensively or moderately cultivated land. The upstream basin of the Kechene river is also covered mainly with woodland but the urbanization is already close to the basin boundary in the north by about only 1.6 km.

The woodlands of these upstream basins of the Kebena, and the tributaries are composed of the trees of mainly eucalyptus. The area covered by the indigenous vegetation is only a few percent of the basin.

The eucalyptus in this basin has the characteristics that they would not allow any other plants in their colony extending the roots shallow and wide. Accordingly the ground of the eucalyptus woodland should generally be covered only with their fallen branches and leaves. But in the said area, local people rake up the branches and leaves for fuel material. Accordingly the ground of the eucalyptus woodland here is nearly the bare ground and the ground soil is very hard. Besides, the eucalyptus has the characteristics that it grows fast, the branch does not spread wide, and the trunk is straight. Thanks to these characteristics, the eucalyptus tree is convenient to be utilized as the construction

these characteristics, the eucalyptus tree is convenient to be utilized as the construction material for houses and others. But at the same time, due to these characteristics, rainfall interception by the eucalyptus woodland in the area can not be expected much and soil erosion here can easily take place.

(4) The West Akaki

The upstream basin of the West Akaki river is located in the western and northwestern part of the Study Area and the land coverage is also woodland mainly consisting of eucalyptus. But the ground of the woodland of eucalyptus in this basin is still covered with many fallen leaves making the ground rather soft.

2.4 Meteorology

2.4.1 General

The Study Area is situated at the north latitude of 08° 55' to 09° 05' and the east longitude of 38° 40' to 08° 50'. According to the modified Koeppen System (by Lowry, 1972) in the CLIMATE CLASSIFICATIONS OF ETHIOPIA by Lemma Gonfa, May 1996, National Meteorological Services Agency of Ethiopia (NMSA), the climate in the Study Area is defined as Warm Temperate Rainy Climates (Cwb). It is characterized by the followings.

- C: Average temperature in the coldest month (November or December) is less 18 °C and greater than minus 3 °C.
- w: Rainfall in the driest month (November or December) is less than one-tenth of the wettest month (July or August).
- b: Average temperature of each four month is 10 °C or more.

Source : NMSA

2.4.2 Rainfall Regime and Seasons

The rainfall is caused by low pressure called as Inter Tropical Convergence Zone (ITCZ) moving across the equator seasonally northward and southward, bringing the change of climate in a year. Rainfall regime is characterized as 'Region-A :Bi-modal Type-1' with quasi-double maxima, according to the CLIMATIC AND AGROCLIMATIC

seasons, with a small peak in April and highest peak in August. Based on this rainfall regime, the Region-A is characterized by three seasons types, namely, 'Bega', 'Belg' and 'Kiremt' (Tesfaye, 1986, Workinch, 1987) as described below.

Bega : This is generally the dry season that covers the period from October to January. However, there is occasionally untimely rain.

Belg : Refers to a small rainy season that covers the period from mid-February to mid-May. However, the rainfall is highly characterized by inter-annual and inter-seasonal variation.

Kimret : This refers to the main rainy season that covers the period from June to September.

Source : NMSA

2.4.3 Meteorological Records in Addis Ababa

The meteorological records at Addis Ababa Observatory are summarized in Table 2.4.1 and Figure 2.4.1. A brief description of the records is presented below.

(1) Rainfall

The average annual rainfall amounts to 1,178 mm. The main wet season generally takes place from June to September, causing about 70 % of annual rainfall. The highest peak of monthly rainfall occurs in August. Another small peak of monthly rainfall is observed in April. Rainfall is scarcely observed during the dry season from November to January.

(2) Air Temperature

Seasonal variation of air temperature is less through a year. The average maximum temperature ranges from 24.3 °C in May to 20.3 °C in August, while the average minimum temperature varies from 11.8 °C in May to 7.7 °C in December.

(3) Relative Humidity

The relative humidity is observed at three times a day, 6:00, 12:00 and 18:00 and the annual averages are 77%, 51% and 54%, respectively. The highest relative humidity takes place in August, while the lowest is shown during the dry season.

(4) Evaporation

The annual average pan evaporation is 1,445 mm. The highest monthly evaporation take places in December or January. The evaporation exceeds the rainfall except the main wet season from June to September.

(5) Sunshine Duration

The average sunshine duration varies from 9.7 hours/day in January to 3.1 hours/day in July. The sunshine duration becomes less than 6 hours/day in the months of wet season, April and July to September.

(6) Wind

The average wind speed ranges from 1.0 m³/sec in March to 0.4 m³/sec in August.

The north-east winds with dry air mass prevail during the dry season 'Bega' from October to January. They are originated from high pressure extending from the Central Asia to Arabia. The main rainy season 'Kiremt' is brought by ITCZ with the south-east winds with warm and moist air mass prevailing from June to September. During the small rainy season 'Belg' from mid-February to mid-May, the south-east winds prevail with the domination of the high pressure over the Arabian Sea.

2.5 Hydrology

2.5.1 General

The Study Area is located in the uppermost catchment area of the Awash river basin. The rivers concerned with the Study Area can be classified into two systems, namely the West Akaki system and the East Akaiki system as described below.

River System	Description	Length (km)	Catchment Area (km ²)
West Akaki	Mainstream of the West Akaki system with a catchment area covering more than half of the Study Area in the west.	32.1	172.2
Little Akaki	Major tributary joining the mainstream of the West Akaki river on the southern boundary of the Study Area.	20.5	30.8
Kebena	Major river covering about 30% of the Study Area in the east, and joining the mainstream of the East Akaki river about 8 km downstream from the southern boundary of the Study Area.	29.0	59.8
Bantiyketu	Bantiyketu River:	4.5	5.4
	Tributary joining the Kebena river about 1 km upstream of the Bole bridge.		
	Kechene River:	11.2	13.6
	Upper reaches of the Bantiyketu river before joining the Kurtume river at the Filwiha bridge.		
	Kurtume River:	9.3	10.3
	Tributary joining the Kechene river at the Filwiha bridge.		
Hanku	Tributary flowing down in the southeastern part of the Study Area and joining the East Akaki mainstream about 10 km downstream from the boundary of the Study Area.	8.6	11.1

- Note:
- 1) Figures of river length and catchment area indicate those within the Study Area.
 - 2) River length and catchment area of the Bantiyketu river give those between the Kebena confluence to the Kechene/Kurtume confluence. Catchment area of the Bantiyketu river system with the Kechene and Kurtume rivers is 29.3 km².
 - 3) The Bantiyketu river is a tributary of the Kebena river. Total catchment area of the Kebena river system with the Bantiyketu river system is 89.1 km within the Study Area.

Source: Study Team

2.5.2 Runoff

In the Study Area, daily gauge height and runoff records are only available on the West Akai river at Gefersa. The daily gauge height has been recorded since 1989. However, The gauge height was converted into runoff for the period of less than one year from the beginning. There is a gauging station on the East Akaki river at Akaki with a catchment area of 884 km², located about 20 km downstream from the boundary of the Study Area. The average annual runoff at Akai is 8.8 m³/sec. The monthly mean runoff varies as shown below.

Unit : m³/sec

JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC
1.39	1.79	1.78	2.88	2.29	2.99	16.30	43.82	25.09	3.11	1.63	1.45

Source : MOWR

2.6 Heritage

2.6.1 Natural Conservation Area

The diverse climate and topography has made Ethiopia rich in wildlife resources. Some 67 species have been observed in the country. The typical species of the wildlife in Ethiopia are:

Animal

monkey, baboon, hartebeest, gazelle, lion, leopard, eland, cheetah, fox, oryx, wild dog, elephant, antelope, zebra, giraffe, warthog, ibex, hippopotamus, buffalo, aardvark, and others.

Birds

rail, ibis, goose, plover, vulture, eagle, bustard, heron, hornbill, flamingo, roller, bee-eater, parrot, lovebird, catbird, chat, starling, oriole, and others.

In line with the policy of protection of wild life in the country, the Ethiopian government designated National Parks in the area where wild life concentration is found in the country. Presently 9 areas are designated as National Park. In addition, 4 wildlife sanctuaries have been established. They are:

National Park

- 1) Awash National Park : in Shewa region
- 2) Bale Mountains National Park : in Bale region
- 3) Omo National Park : in Kefa region
- 4) Nechisar National Park : in Sidamo region
- 5) Yangudi-Rassa National Park : in Harerge region
- 6) Abijata Shala Lakes National Park : in Shewa region
- 7) Simen Mountains National Park : in Gonder region
- 8) Gambella National Park : in Ilubabor region
- 9) Mago National Park : in Gamo Gofa region

Wildlife Sanctuary

- 1) Babilla Elephant Sanctuary : in Harerge region
- 2) Senkele Swayne's Hartebeest Sanctuary: in Shewa region
- 3) Yabello Sanctuary : in Sidamo region

(Source: Wildlife Conservation Organization and Ethiopian Tourism Commission)

All above these are spread nationwide and the locations are shown in Figure 2.6.1. As shown in Figure 2.6.1, all these are located outside of the Study Area.

2.6.2 Historical and Cultural Heritage

Ethiopia is the oldest independent nation in Africa and one of the oldest country in the world of at least 2,000 years history. Although it is suggested that the Axumite civilization started in the fifth century B.C. based on the historical evidence, Ethiopia is said to have a much longer unrecorded history of more than three thousand years.

It is reported that even the earliest human ancestor existed in Ethiopia according to paleontological investigations. It is estimated that the fossils discovered at Hadar, Afar region, in the lower Awash river are those of 3 to 3.6 million years ago. A new species is named as the fossils-Australopithecus Afarensis.

The heritage of Ethiopia's long history is found especially in the northern part of the country: Adulis, Axum, Coloe, Lalibela, Gonder, Gorgora, Ankober. All these are located nationwide and are located outside of the Study Area.

Some historical assets are also found near Addis Ababa. The typicals are Melka Kunture as the archaeological site of neolithic man about 1.5 million years ago, Adadi Mariam cave church built in Lalibela era, Debre Zion church built by Menelik II in Addis Alem, Debre Libanos monastery built in 13th century, and ruins of one of Menelik's palaces in Debre Berehan town are found in the area near the Study Area. All these are also located outside of the Study Area.

In the city of Addis, some old buildings are existing as important cultural assets other than rather new important facilities such as Congress Hall, Africa Hall, Addis Ababa University, National Museum, Ethnological Museum, Zoological Natural History Museum, and others. The important cultural assets are;

- 1) The Menelik Mausoleum,
- 2) Trinity Cathedral,
- 3) St. George's Cathedral,
- 4) The Jubilee Palace,
- 5) Intoto Mariam church built in Menelik era.

The locations of these cultural assets are shown in Figure 2.6.2. The Figure shows that these heritages are located rather far from the objective rivers of flood control project. Accordingly these heritages are not necessarily taken into consideration for the improvement works of the rivers.

2.6.3. City Park

There are open areas within the urban area of the city, for the recreational, zoological, botanical and other uses. At present, there are 10 city parks, administered by Park Team of Region 14 with the coverage area of 113.89 ha. In addition, there are 2 nursery parks in the city. They are:

Park	Area (ha)	Location (wereda)		Present Condition
		Zone	Wereda	
(1) Hamle 19	16.80	4	11	open
(2) Ambassdor Park	0.89	5	2	open
(3) Anbessa Gibi Park	1.00	4	13	open
(4) Bhihere Tsige Park	40.00	3	19	open
(5) Mackelawi Park	35.00	4	15	open
(6) Yeka Park	6.00	4	16	open
(7) Alincho Ber Park	1.20	4	9	to be opened soon
(8) Gola Park	1.00	1	3	to be opened soon
(9) Ferencay Park	5.00	4	12	to be opened soon
(10) Sheger Park	7.00	5	10	open
(11) Bulbula Nursery Park	-	3	18	-
(12) Kebena Nursery Park	-	3	17	-

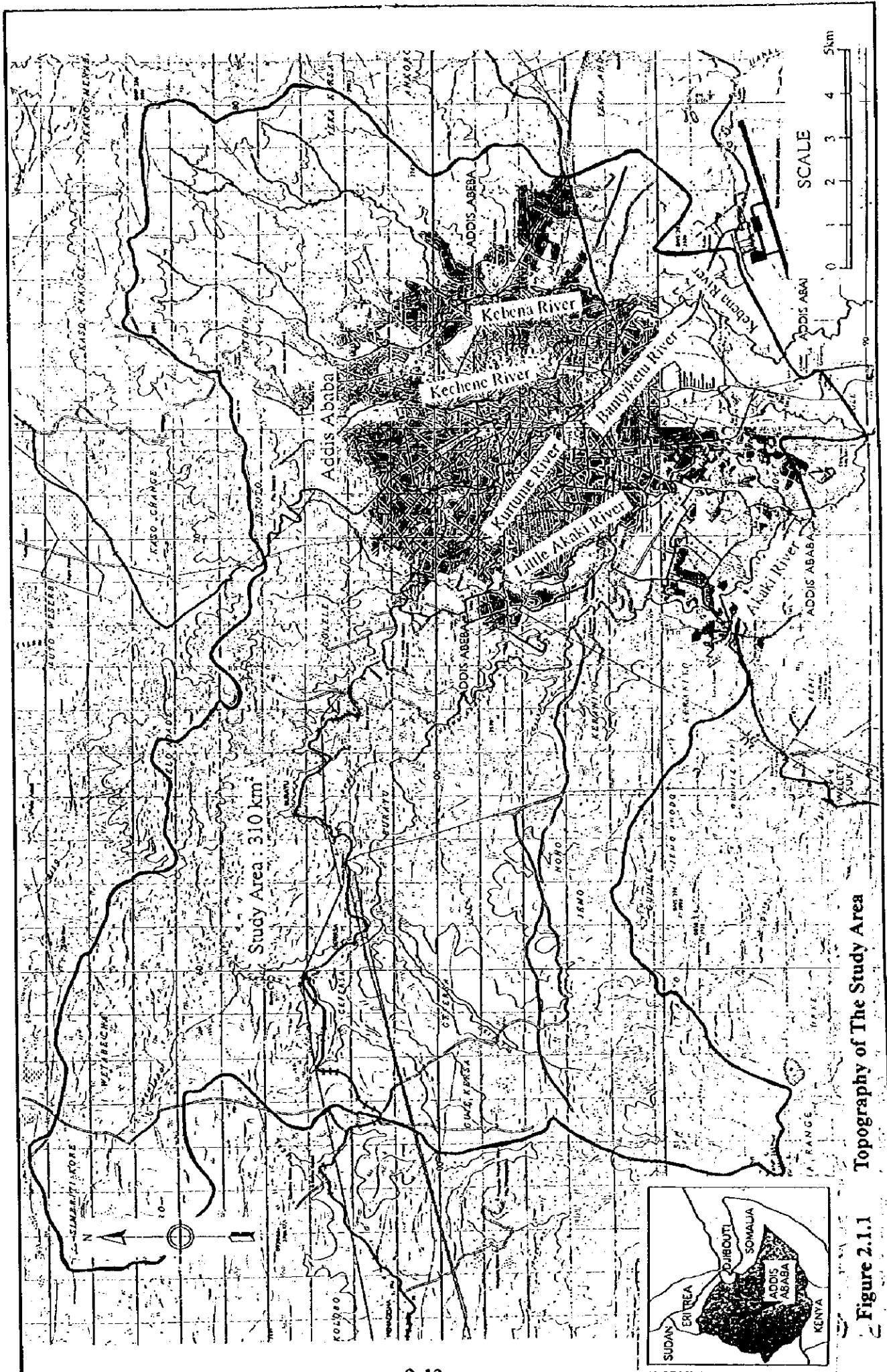
(Source : Park Development Team of Region 14 Administration)

The locations of these parks are shown in Figure 2.6.3. The Figure shows that most of these parks are located along the objective rivers of the Study. For formulation of flood control master plan in Addis Ababa, this situation should be taken into consideration from the view point of environmental protection.

Table 2.4.1 Summary of Meteorological Records at Addis Ababa Observatory

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL
Rainfall (mm)	17	39	68	95	76	122	254	278	174	37	8	11	1178
Temperature (degree)													
Average Maximum	23.1	23.9	24.3	23.9	24.3	22.8	20.4	20.3	21.0	22.2	22.4	22.5	22.6
Average Minimum	8.4	9.7	11.0	11.7	11.8	10.9	11.0	10.9	10.7	9.4	8.2	7.7	10.1
Pan Evaporation (mm)	149	121	136	113	120	83	74	77	93	159	171	149	1445
Relative Humidity (%)													
06:00	74	71	70	73	72	81	88	89	86	73	73	72	77
12:00	33	44	48	61	43	52	74	74	61	40	37	46	51
18:00	43	43	44	50	50	62	74	76	69	47	43	43	54
Sunshine Duration (Hours/Day)	9.7	8.6	7.9	5.2	7.5	6.7	3.1	3.5	4.9	8.5	9.4	8.6	7.0
Wind Speed (m3/sec)	0.9	0.8	1.0	0.8	0.9	0.5	0.5	0.4	0.5	1.0	0.8	0.8	0.7

Source : NMSA



Topography of The Study Area

Figure 2.1.1

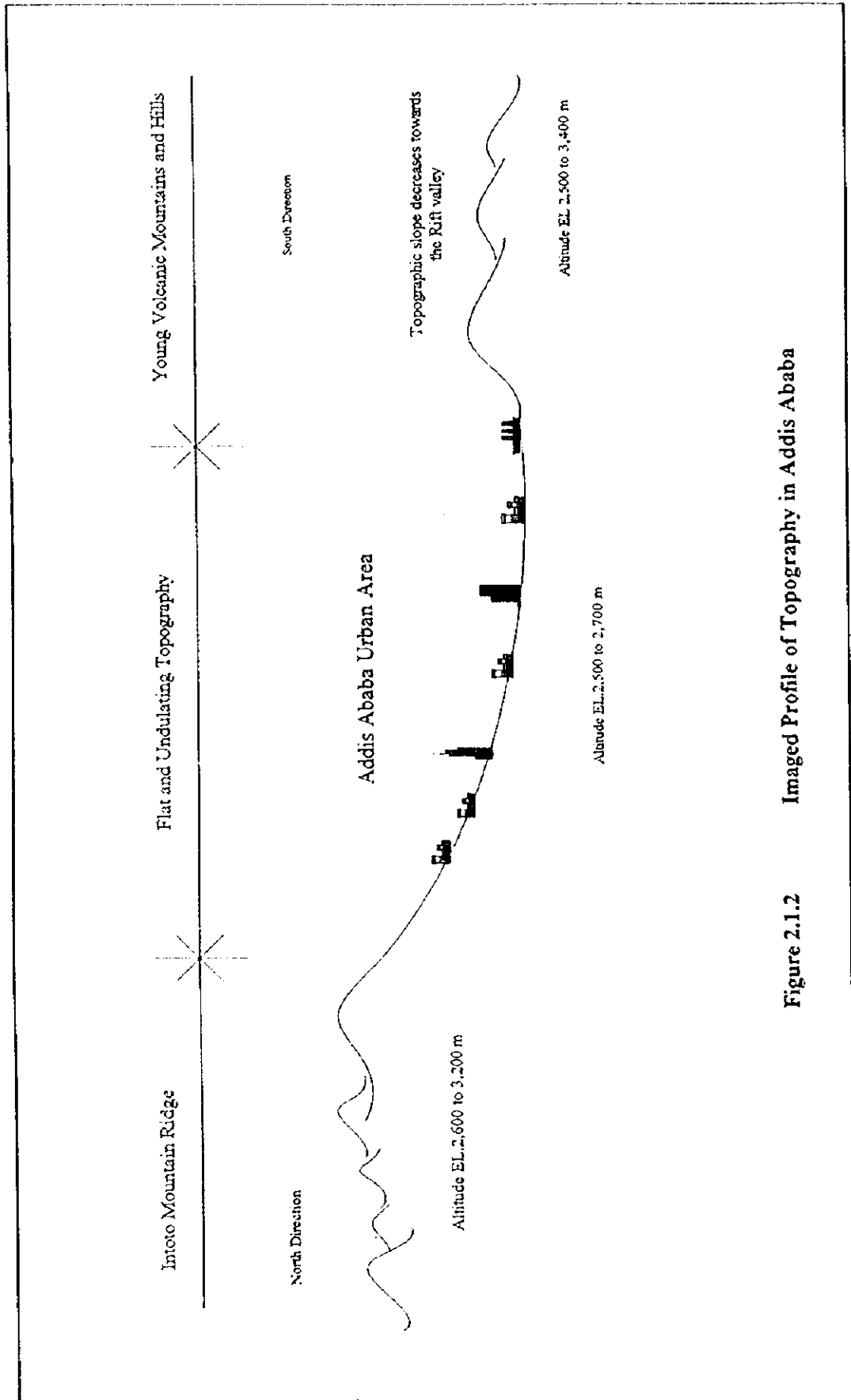
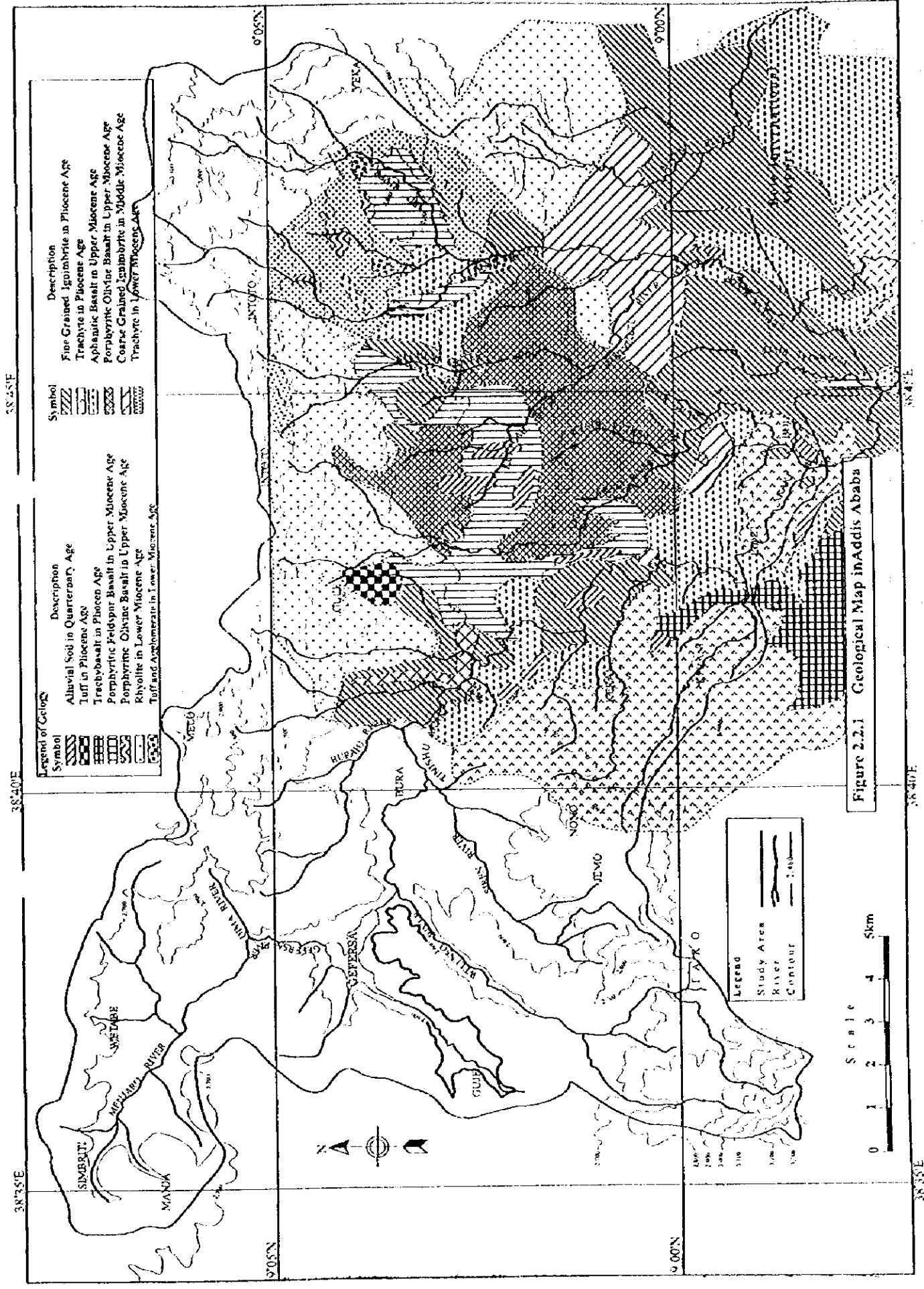
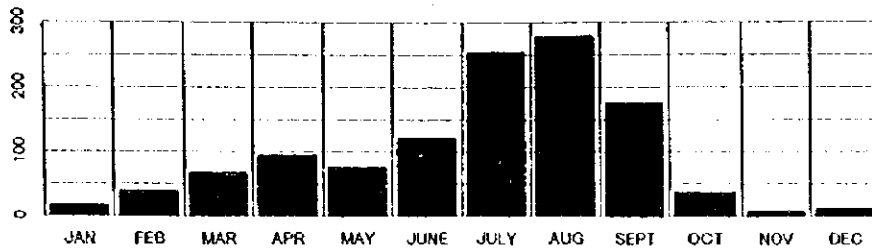


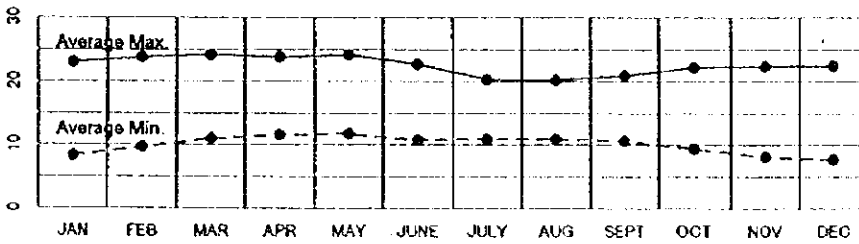
Figure 2.1.2 Imaged Profile of Topography in Addis Ababa



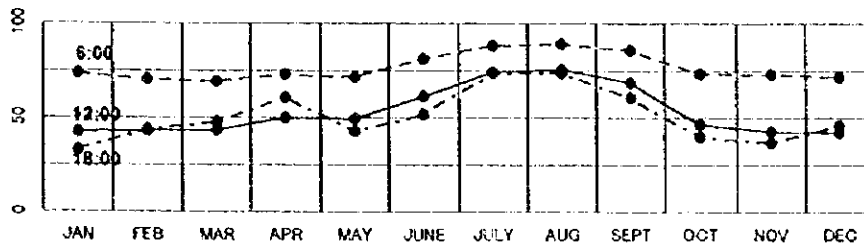
Rainfall (mm)



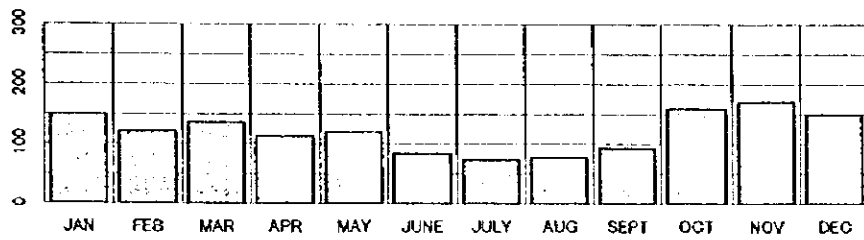
Temperature (degree)



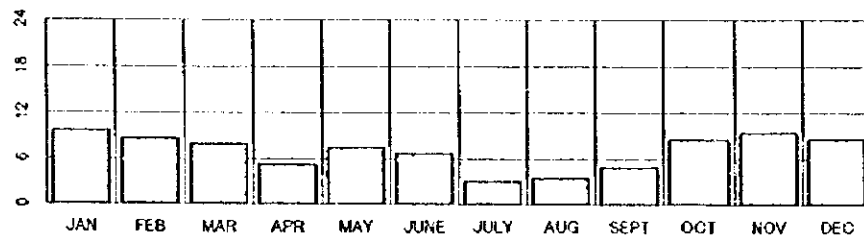
Relative Humidity (%)



Pan Evaporation (mm)



Sunshine Duration (hours/day)



Wind Speed (m3/sec)

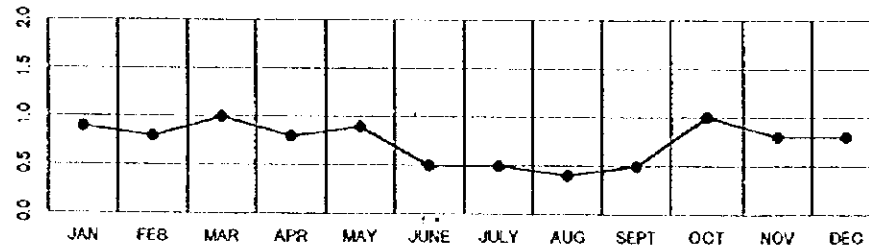
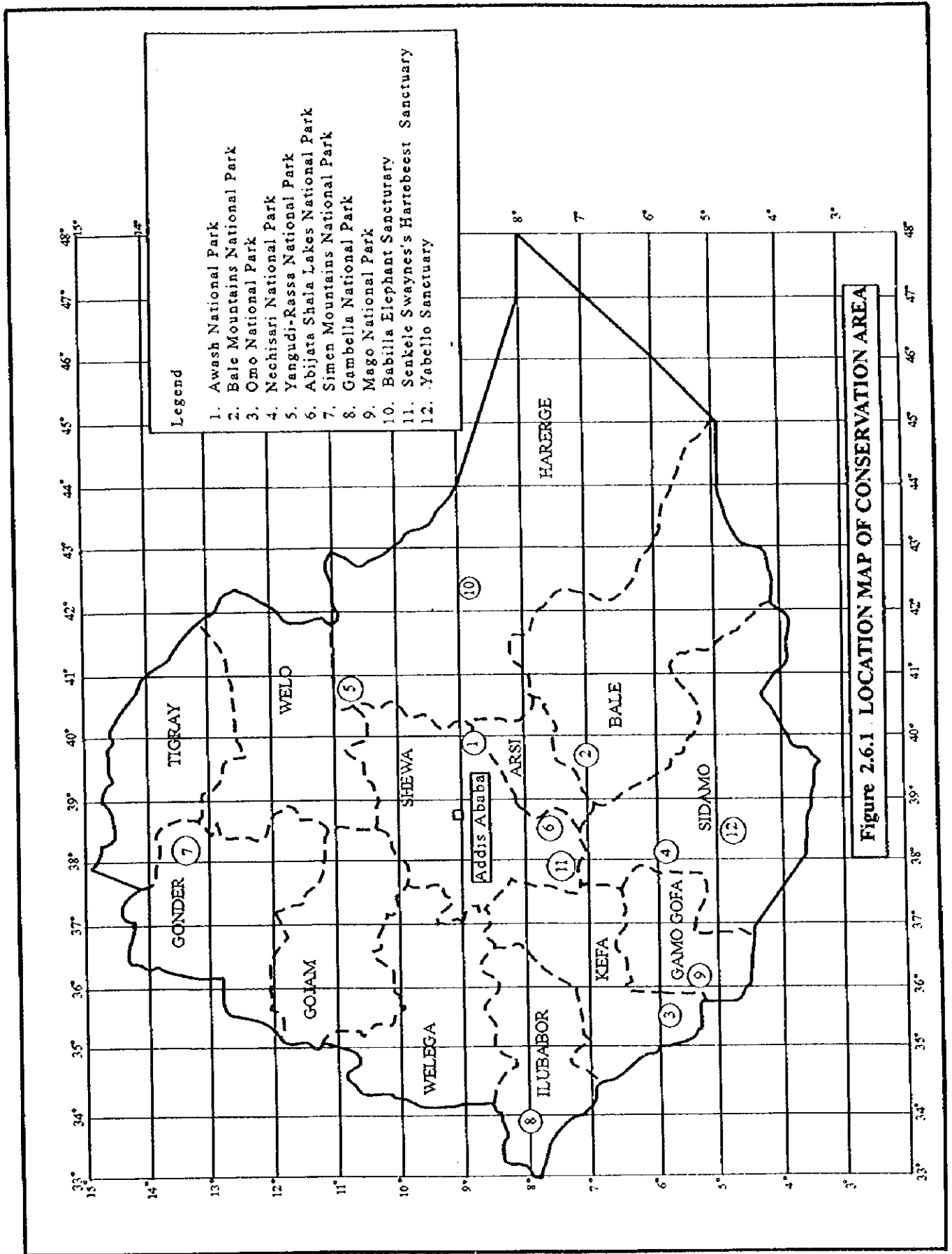


Figure 2.4.1 Summary of Meteorological Records at Addis Ababa Observatory



38°45'E

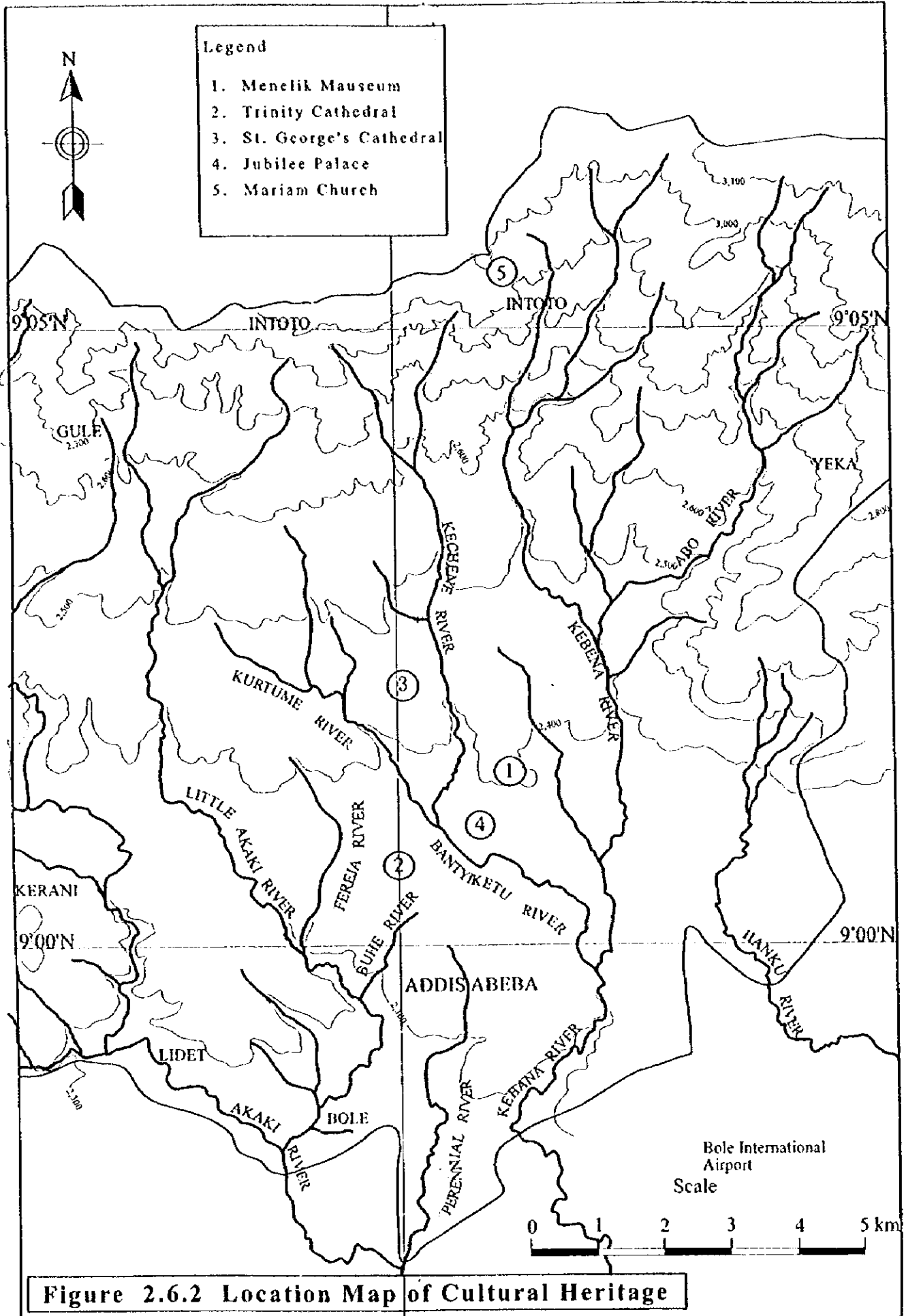


Figure 2.6.2 Location Map of Cultural Heritage

38°45'E

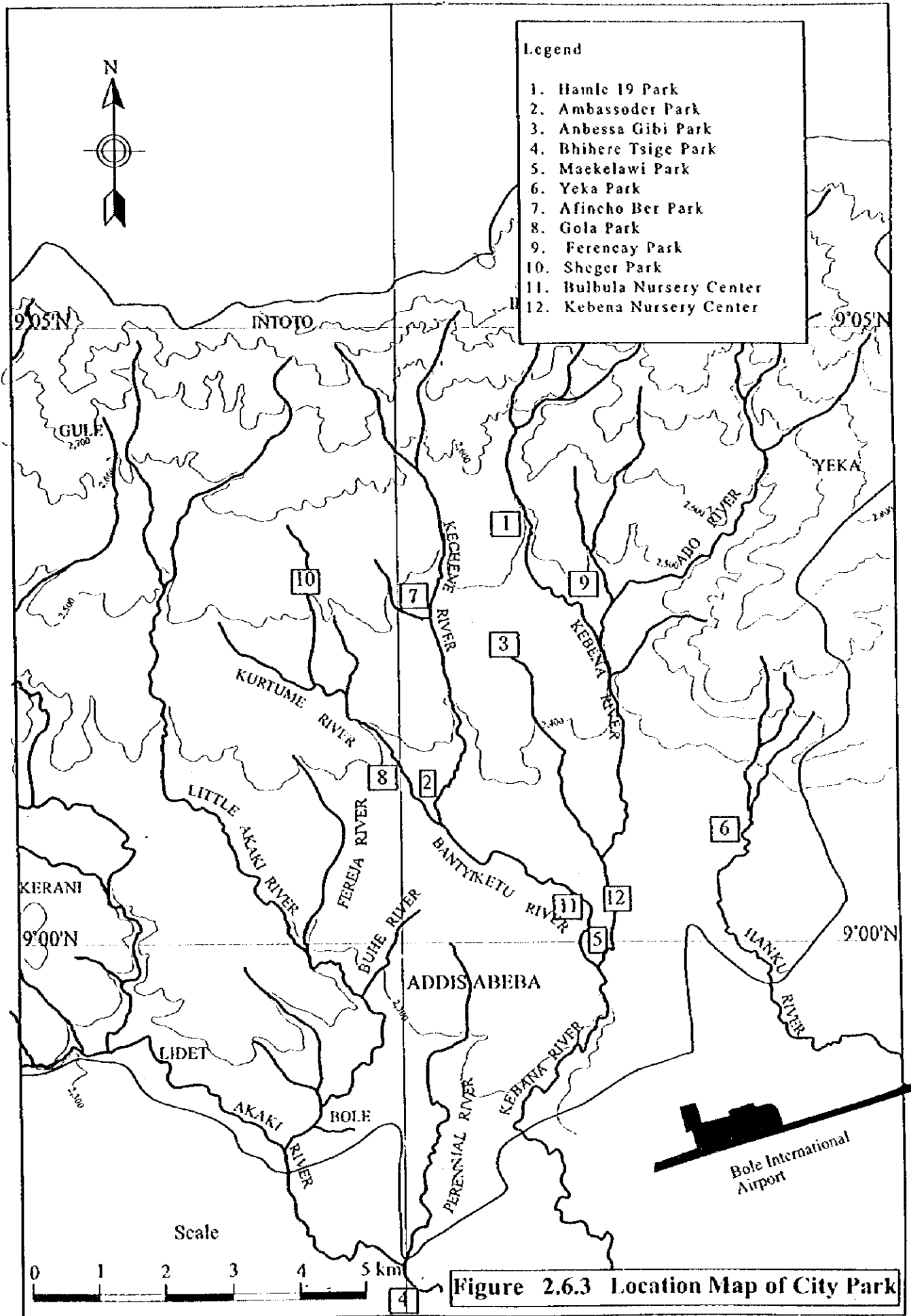


Figure 2.6.3 Location Map of City Park

**THE STUDY ON ADDIS ABABA
FLOOD CONTROL PROJECT**

CHAPTER 3

SOCIO - ECONOMY

THE STUDY
ON
ADDIS ABABA FLOOD CONTROL PROJECT
IN
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

CHAPTER 3 SOCIO-ECONOMY

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3. SOCIO-ECONOMY

3.1 Administrative Situation

3.1.1 National and Regional Administration

(1) National Administration

Ethiopia, formally called Federal Democratic Republic of Ethiopia in English, has nine regions and two special municipalities. The nine regions are Tigray, Afar, Amhara, Oromia, Somali, Benishangul Gumuz, S.N.N.P.R. (Southern Nations Nationalities and People's Region), Gambela, Harari, and the two special municipalities are Addis Ababa and Dire Dawa. Addis Ababa, often called Region 14, is the capital city of Ethiopia. Approximate locations of the regions and municipalities are shown in Figure 3.1.1.

The administrative entity, which has autonomy, is the nation, region and municipality mentioned above. Public services such as flood control are executed by a foregoing autonomous entity.

Figure 3.1.2 shows administrative structure of the Federal Government of Ethiopia. Out of the ministries shown in the figure, the ministries which are related to the flood control project in Addis Ababa are the Ministry of Water Resources, the Ministry of Urban Development and Housing, and Ministry of Economic Development and Cooperation.

The Ministry of Water Resources is responsible for nationwide water resources development. The Hydrology Department of the Ministry has closely related to the project in view of water level observation in the West Akaki river and a flood forecasting system for the Koka lake which is under planning. Upon the request of Region 14 Administration or other regions, the Ministry has responsibility to provide consultation in the field of water resources development.

The National Urban Planning Institute, one of the organization under the Ministry of Urban Development and Housing, is responsible for urban development in Addis Ababa through the Bureau of Works and Urban Development of Region 14 Administration.

Ministry of Economic Development and Cooperation (MEDAC) is in charge of coordination of multilateral and bilateral development aid and loans in cooperation with the concerned organs and follow up their implementation, as one of its duties. Preparation and following up of long, medium, short-term development plans based on country's development strategy are also MEDAC's one of the major duties.

(2) Region 14 Administration

The city of Addis Ababa, often called Region 14, is situated in central Ethiopia and has a total area of about 510 km². Addis Ababa, the capital city of Ethiopia, is governed by the municipal government, Region 14 Administration. The capital city of Ethiopia was transferred from Gondar to Addis Ababa in 1887. The municipal boundary of Addis Ababa is shown in Figure 3.1.3.

Addis Ababa has six (6) Zones. The six (6) Zones are further subdivided into 28 Weredas, consisting of 305 Kebeles and 23 farmers associations. Kebele is the lowest administrative unit in urban area with its own jurisdiction and is an association of urban dwellers formed by inhabitants. Out of 28 Weredas, only five (5) Weredas have rural part where the farmers associations are situated. Farmers association is the lowest administrative unit in a settled rural area with its own jurisdiction and is an association of rural dwellers formed by inhabitants of a given area whose members are engaged either in agricultural and/or non-agricultural activities.

The organization chart of the Region 14 Administration is shown in Figure 3.1.4. The parliament of the Region 14 headed by the President (Mayor), is organized by 15 members. The parliament members consist of statesmen who govern Social and Economic Sectors under Vice President and Administrative Sector under Secretary. The parliament of Addis Ababa is supported by the Executive Committee as a secretariat.

Under directions by the vice president, there are two (2) sectors, economic and social sectors. On the other hand, there are one administration sector, and zonal and wereda administrations which are directed by the Secretariat. The Economic Sector in charge of flood control and prevention in Addis Ababa as one of its duties, is organized by seven (7) bureaus and four (4) special offices as shown in Figure 3.1.5 and presented below.

Bureau

- Planning and Economic Development Bureau,
- Trade Industry and Tourism Bureau,
- Works and Urban Development Bureau
- Finance Bureau,
- Agricultural Bureau
- Transport and Communication Bureau, and
- Environmental Management Bureau.

Special Offices

- Environmental Development Office,
- Addis Ababa Flood Control and Prevention Project Office,
- Project Implementation Office, and
- Addis Ababa Water Supply and Sewerage Authority.

3.1.2 Addis Ababa Flood Control and Prevention Project Office (AFCPO)

(1) Responsibility and Organization

In September 1994, the Region 14 Administration established the Addis Ababa Flood Control and Prevention Project Office (AFCPO). AFCPO was organized in line with a development policy of the national disaster prevention and management for the target year of 2020. AFCPO is responsible for implementation of urgent flood control measures, and investigation and implementation of long term measures to protect the city of Addis Ababa from flooding, and to resettle the people who are in danger due to flooding.

In addition, AFCPO is principally responsible for administrating and controlling the rivers in the Region 14 Administration. Accordingly, advance permissions to be issued by AFCPO through the Region 14 Administration, are needed in case construction of facilities in the river reservation areas as informal green areas which have been authorized by the Addis Ababa Master Plan.

AFCPO, which belongs to the Economic Sector of the Region 14 Administration, is being directly administrated and controlled by the Steering Committee of AFCPO. The Steering Committee is headed by the President (Mayor) of the Region 14 Administration.

The following are committee members:

- President (Mayor) of the Region 14 (chairman),
- Adviser of the President,
- Finance Bureau (for financing of the project),
- Planning and Economic Development Bureau (for overall economic development),
- Works and Urban Development Bureau (for urban and road development),
- Agricultural Bureau,
- Environmental Management Bureau,
- International Relations and Development Cooperation Bureau (for international relations), and
- AFCPO (for resettlement and flood control prevention).

Figure 3.1.10 shows the organization chart of AFCPO. AFCPO is headed by General Manager under directions by the Steering Committee. Yet, the organization of the office has not been fully setup. Therefore, it is still weak even for daily activities.

In case of serious flooding, an advance warning and special relief plan are expected to be exercised, in line with the National Disaster Prevention and Management. This is being directed by the two major committees of the National Disaster Prevention and Preparedness Committee in national level and the Regional Disaster Prevention and Preparedness Committee in regional level. The details of this matter are described in 4.1.5 of Chapter 4.

(2) Activities of AFCPO

As already explained, AFCPO is responsible for implementation of urgent flood control measures, investigation and implementation of long term measures to protect the city from flooding, and resettlement of the people who live in the flood prone areas. However, as a matter of fact, such activities have been limited to design and supervision of local construction works due to not only no authorized flood control plan to be realized but also a little budget.

AFCPO principally provides studies, designs and prepares tender documents for AFCPO projects. Land acquisition and compensation required for the construction works are proceeded in cooperation with the Works and Urban Development Bureau.

The construction works have been carried out by full contracting system under supervision of AFCPO. The contractor is selected through a competitive bidding system without pre-qualification procedure. Contractors to be invited have been registered in the Region 14 Administration with grades from class 1 to class 10 depending on project scale to be handled. The number of contractors to be invited is generally 15 to 20.

(3) Funding and Budgeting

An annual budget of AFCPO is allocated principally by Region 14 Administration. In some cases, it comes from NGO, community contribution, or National Disaster Prevention and Preparedness Fund of the Federal Government. The budget flow of AFCPO is summarized below.

- Proposal by AFCPO,
- Planning and Economic Development Bureau,
- Region 14 Administration (Parliament),
- Implementation of Project, and
- Release of Cost to Consultants or Contractors through Finance Bureau.

The budgets of AFCPO in the past are described in the following section 3.4 of Chapter 3.

(4) Organizations Related to the AFCPO Project

Other organizations related to the Project are the Ministry of Water Resources, National Urban Planning Institute in the Ministry of Urban Development and Housing, and Ministry of Economic Development and Cooperation.

The Ministry of Water Resources is responsible for nationwide water resources development. The Hydrology Department of the Ministry has closely related to this project in view of water level observation in the West Akaki river and a flood forecasting system for the lake of Koka which is under planning. Upon the request from the Region 14 Administration and other Regions, the Ministry has responsibility to provide consultation in the field of water resources developments.

The National Urban Planning Institute is responsible for urban development in Addis Ababa through the Bureau of Works and Urban Development of Region 14 Administration.

Finally, the Ministry of Economic Development and Cooperation is responsible for international relationships for finance, technical cooperation, etc.

3.2 National and Regional Development Plan

3.2.1 National Development Plan

The Federal Government of Ethiopia set its Five Year Program on Development, Peace and Democracy (July 1995 – July 2000). The program had been initiated by MEDAC and it was approved by the parliament of Ethiopia. The program has three basic goals, 1) ensuring accelerated and sustainable economic growth, 2) guaranteeing peace and stability, and 3) promoting the democratization process which is underway. The program aims average annual economic growth rate at 7 to 10 %. Strategies of the program are summarized below.

I. Ensuring Accelerated and Sustainable Economic Growth

a) Implementation of Rural Centered Development Program/Strategy

- Boost the productivity of peasant agriculture and the supply of export products, food at reasonable prices and raw materials for the manufacturing sector,
- Creation of demand for domestically manufactured goods,
- Improve agricultural productivity by improved seeds, fertilizer, pesticide, rural credit service program and training program for modern farming,
- Small scale irrigation for the area of shortage of rain,
- Develop the livestock resources by improved feed and veterinary services,
- Conservation and rehabilitation of natural resources,
- Implementing favorable land use policy, especially for investment in the agricultural sector by private sector,
- Establishment of effective marketing system for agricultural products and other relevant commodities, especially by private trader,
- Encourage private investors to participate in agriculture,

- Improve the living standards of the population by expanding economic and social infrastructure, such as basic education, health services, safe drinking water, road construction, transportation and rural potable water services, and
- Establish peasant association and service cooperatives for provision of agricultural inputs and equipment necessary for increased agricultural production, credit services and creating effective marketing system.

b) Improve the Living Standard of the Urban Population

- Improve the living condition of the urban population by increasing job opportunity,
- Support private investors to participate and complement the public sector like construction works, and
- Develop infrastructure such as electric power, transport, telecommunication and water supply both in rural and urban areas.

c) Adopting Effective Education Strategy

- Improvement of education curriculum,
- Ensuring fairness of educational opportunity, especially provision of elementary education for all citizens freely,
- Expansion of vocational education in order to fulfil the demand of skilled manpower, and
- Restructuring of educational administration under the control of the respective regional administration.

d) Preventive and Primary Health Care Strategy

- Expanding preventive and primary health care services by replacing the current six-ranked health services system into three basic classes,
- Improving the supply of basic medicine by encouraging private investment in pharmaceutical industry, and
- Encouraging private entrepreneurs to participate in rendering health services.

II. Ensuring Peace and Stability

e) Preserving People's Equality and Fraternity

- Strengthening the administrative capacity of regions,
- Bring equitable development among regions, and
- Bring closer cooperation among people.

f) Establishing Efficient and Democratic Executive System

- Establishing an effective and democratic national army,
- Creating a democratic police force, and
- Establishing efficient judiciary system.

g) **Creating Good Relationship with Neighbouring Countries**

- Respecting neighbouring as well as other country's sovereignty, and
- Creating peace and stability in the region on the basis of equality, fraternity and mutual benefit.

h) **Strengthening Economic Cooperation with Neighbouring Countries**

III. Consolidating Community Participatory Based Democracy and Development

i) **Strengthening the Democratic Culture in Government Structure**

- Promoting democratic structure through democratic administration including free judiciary system, democratic police and defense forces, democratic rules and regulations, and
- Strengthening democratic culture through education and forums on democracy.

j) **Establishing Peoples' Full Participatory Democratic System**

- Devolving authority to the lower administrative organs,
- Strengthening the various mass organizations such as trade unions, women and youth as well as peasant associations, and
- Undertaking development activities with full participation of the community.

Consistently with the Five Year Program, Public Expenditure Program (PEP) and Public Investment Program (PIP) is being designed by the Government. PEP is a middle term program for recurrent expenditure program to be designed and followed up by the Ministry of Finance. PIP is also a middle term program for capital investment to be designed and followed up by MEDAC. Both the program will be formulated in a several months.

3.2.1 Regional Development Plan

(1) Five Year Development Plan

Region 14 Administration is preparing the five year development plan (1997/98 - 2001/02) at present but it has not been officially authorized yet. According to the draft plan, it covers wide variety of aspects as listed below:

A. Economic Plan

- Improvement of the living standard,
- Increment of the economic infrastructures,

- Improvement of transport and communication services,
- Improvement of agricultural economy,
- Environmental protection,
- Improvement of tourism, and
- Increase the government revenue.

B. Social Plan

- Improvement of educational services,
- Health services,
- Environmental sanitation services,
- Sports and cultural services, and
- Reduction of other social calamities.

C. Political and administrative plan

- Democratic culture and development to be build by direct, wide and all round participation of the people,
- Strengthening of the people's elective body structure by rendering it directly responsible to the people,
- Expanding the judiciary organs to improve the judicial system,
- Improvement of bureaucracy, and
- Development of the security forces efficiency.

Out of the plans shown above, flood protection is also included as one of the major concern for development. The plan includes the following items:

- To set a flood control master plan and a detailed plan for priority works
- To take necessary measures to reduce the lighter level of loss of life and property from flooding,
- To identify flood prone areas and to complete the study for resettlement of the people, and
- To take necessary measures including construction of flood walls in line with the flood control master plan.

(2) Addis Ababa Master Plan

Master Plan of Addis Ababa was formulated by Region 14 Administration with technical cooperation by Italian Government in 1986. The Master Plan has been authorized by the Ministry of Urban Development and Housing (MUDP) - National Urban Planning Institute (NUPI) in 1994. The Master Plan takes up various topics such as population, agriculture, industry, transport, housing, town and landscape including social services and public utilities, and land use. The outline of the Master Plan is described below and explained in Sections 4.4 to 4.6 in the Chapter 4.

1) Target Year

The Master Plan set the target year in 2006 with a span of twenty years from 1986 to 2006.

2) Projected Population in the year of 2006

The population of the core area (present area of Addis Ababa) in the target year is projected to be 2.7 million from 1.6 million in 1986, while the population of whole planning region including Shoa and Aris areas is projected to 20 million from 11 million in 1986.

3) Basic Principle of the Plan

The main guiding principles and objectives of the Master Plan are set as follows:

- To obtain a more balanced relationship between Addis Ababa and its region,
- To develop Addis Ababa as a self-contained and polycentric city,
- To ensure that Addis Ababa can adequately perform its role as a national and international capital city,
- To produce an integrated and more equitable modern city,
- To minimize urban inefficiencies and maximize the use of existing resources,
- To reduce social and operational costs,
- To strengthen and improve the physical structure of Addis Ababa, and
- To obtain clear-cut procedures of the implementation process.

4) Structural Development of Addis Ababa

The future development of Addis Ababa totaling to an area of 510 km² is structured around one (1) city center and six (6) sub centers in the present urban area and three (3) sub centers in the expansion areas. Such core areas are to be developed with well balanced and integrated.

The present urban areas are to be upgraded through a number of renewal and rehabilitation projects while the following five (5) areas are to be developed as expansion areas. They will be in each district of Kotebe in the eastern fringe of the present urban area, Keranyo in the west, Kotari, Kalite and Akaki in the south. In line with the above-mentioned basic structural policies, urban development of Addis Ababa is to be achieved aiming at the year of 2006. Figure 3.2.1 shows the study region by the master plan.

5) Land Use Plan

The land use in Addis Ababa is basically grouped into eight (8) categories. They are as follows:

- Residential area,
- Business and trade area,
- Industry and workshop,
- Governmental institutions,
- Urban services,
- Technical services,
- Restricted area, and
- Green area.

The above eight (8) categories are further divided into 22 sub-categories and are drawn up in the land use map of a scale of 1/10,000. The land use map of the Master Plan is shown in Figure 7.2.2.

Especially, it is emphasized that the image of Addis Ababa is of a green city where open spaces and forest play a major role. Green area is divided into two areas of formal and informal ones. The formal green area is of public park with botanical nature as local, district and citywide green networks.

On the other hand, informal green area is developed along river, stream and creeks, and in the forest areas. Especially for the major rivers in urban area of Addis Ababa, green zone is provided with a width of maximum 1 km. Further, reshaping of such rivers are emphasized as informal green areas in connection with their channel improvement.

6) Proposed Road Network

Arterial road network is recommended to construct or improve. The arterial road network consists of ring road system and radial road system. The details are mentioned in the section 4.5 in Chapter 4.

7) Plan Implementation Office

The Works and Urban Development Bureau (WUDB) of Region 14 Administration is assigned as a plan (project) implementation office. WUDB is responsible for design, evaluation, survey, registration land assignment, and supervision and control in line with the authorized master plan.

8) Implementation of Plan

The plan is implemented with two (2) phases of the first 10-year phase from 1986 to 1996 and the second, from 1996 to 2005. The 3-year program is further set within the respective 10-year phases.

9) Present Status of the Master Plan

Currently, the Addis Ababa Master Plan is the governing document that guides and regulates the development of the city. Now a days, any development activity in the city, is checked against the proposal of the Master Plan before it enters into the process of implementation. The task of monitoring the implementation process of the Master Plan is shouldered by Master Plan Development and Inspection Department, which has been established within Works and Urban Development Bureau in 1994. This department is in charge of not only monitoring the implementation process, but also play the role of facilitating and promoting the implementation of the Master Plan.

In line with the objective of facilitating the implementation process, the Master Plan Department is expected to undertake various studies such as, detailed plan preparation for area development, demand - supplies analysis on social services, etc. In this respect the Department is currently in carrying out the following development studies:

- Preparation of development plan for extension area (an area of 240 ha, in Akaki area which is expected to accommodate some 4,000 residential houses),
- Preparation of plans for Inner City Redevelopment (an area of 50 ha, around National Theater). This project is expected to come up with detailed proposals regarding renewal of buildings, road and other infrastructure network within the project area,
- Preparation of Sub-center development plans (land-use plan, relocation and compensation, etc.),
- Preparation of Wereda Sub-center (land-use plan, relocation and compensation, etc.),
- Preparation of detailed plans for development of public parks (2 locations), and
- A study of identifying sites proposed for social services and assessing its present land use.

3.3 Socio-Economy

3.3.1 Population

(1) The 1994 Population and Housing Census of Ethiopia

The latest (the second) nationwide population and housing census was conducted in October 1994. The 1994 Population and Housing Census of Ethiopia was conducted by Office of the Population and Housing Census Commission, Central Statistical Authority (CSA). The Census was financially and technically assisted by the United Nations Population Fund (UNFPA) and United States Agency for International Development (USAID). Further, the United Nations Development Program (UNDP) and Swedish International Development Authority (SIDA) financially assisted the Census.

According to Central Statistical Authority (CSA), the results of the census have been compiled and published in the most regions. However, total population of Ethiopia has not been summed up yet, since the work of some region is behind the schedule.

In the census, it should be noted that 1) homeless persons are enumerated in the places where they are spending the night, 2) foreign nationals who are residing in the city were included and 3) Ethiopians living abroad are not counted.

(2) Population in Ethiopia

In the latest Ethiopia Statistical Abstract 1995, the total population of Ethiopia has been estimated at 54.9 million in 1994, while urban population is 8.2 million and rural population is 46.7 million. Rural population accounts for 85 % of total population in 1994. The total population increased by 12 million as compared with that in 1984 as shown in Table 3.3.1. During 6 years from 1978 to 1984, the average annual growth rate of the population was 6.4 %. During 10 years from 1984 to 1994, the growth rate slowed down to 2.6 %. This rate, however, indicates that the population may double in about 27 years (by the year 2021). Growth of the rural and urban population of Ethiopia is shown in Figure 3.3.1.

(3) Population in the Study Area (Addis Ababa)

Average annual growth rate of population in Addis Ababa indicates higher increasing trend than that in whole Ethiopia. The population in Addis Ababa increased from 1.4 million in 1984 to 2.1 million in 1994 with an average annual growth rate of 4.0 %. Addis Ababa expanded its area from 220 km² to 510 km² in January 1992 and out of 510 km², 250 km² is rural area. Figure 3.3.1 shows rural and urban population in Addis Ababa in 1978, 1984 and 1994. About 99 % (2,084,588) of the total population are residing in the urban areas of Addis Ababa.

Moreover, a number and average size of household is reported to be 410,433 households and 5.1 persons, respectively. Out of the said total households, about 99% (404,768 households) are in the urban areas of Addis Ababa.

Table 3.3.2 shows area, population, average annual growth rate and population density by Kebeles in Addis Ababa based on the result of the population censuses in 1984 and 1994.

3.3.2 Labor Force

The economically active population is defined as persons aged 10 years and over, and who are working or looking for a job in Ethiopia. The economically active population increased almost double in a decade from 1984 to 1994 in Addis Ababa as shown in Table 3.3.3. Especially economically active women increased more than 100 % in the same

period. However, population of working women increased at only 46.3 % and this is by far smaller than the growth rate of women's population of 10 years and over.

On the other hand, unemployment ratio of Addis Ababa increased from 10.5% in 1984 to 34.7 % in 1994. This shows that increase of job opportunities have not catch up with rapid population growth partly due to influx of population from rural areas.

Table 3.3.4 shows the economically active population (here, employed persons and unemployed persons who had work experience) by sub-industry division in Addis Ababa in 1994. The trade sector, including wholesale trade, retail trade, repair of vehicles and other goods, employed the largest number of workers accounting for 119,197 or 18.6 % of the economically active population in Addis Ababa. The manufacturing sector, such as food products, textile, chemicals, rubber and plastic, basic metals and metal products, and furniture, absorbed 113,977 or 17.8 % of the economically active population, while only 2.6 % of the economically active population engaged in the agricultural sector in Addis Ababa.

3.3.3 Cultural Conditions

(1) Ethnic Groups

It is said that Ethiopia has more than 70 ethnic groups and more than 280 different languages. Addis Ababa also has a variety of ethnic groups. According to the 1994 Population and Housing Census, the population of Amhara accounts for 1,019,729 or 48.3 % of the total population of Addis Ababa. The second largest ethnic group is Oromo, which has 406,518 persons or 19.2 % of the total population. The population size of major ethnic groups in Addis Ababa is shown in Table 3.3.5.

(2) Religion

About 38 % of the people of Ethiopia are Christians of the Ethiopian Orthodox Union Church (Orthodox), and Christianity is predominant in northern Ethiopia. The southern regions have Muslim majorities, who represent about 43 % of the total population of Ethiopia.

The most dominant religion in Addis Ababa is Orthodox. According to the 1994 Population and Housing Census, 82 % of population in Addis Ababa was Orthodox. Muslim holds second (12.7 %). Protestant (3.9 %) and Catholic (0.8 %) follow it. The population size by religion in Addis Ababa as of 1994 is shown in Table 3.3.6.

(3) Education

In Ethiopia, the grades 1 to 6 are called elementary school, the grades 7 to 8 are junior secondary school, and the grades 9 to 12 are senior secondary school.

Table 3.3.7 shows the population aged five years and over by status of school attendance in Addis Ababa. In the urban area, about 85 % of the population is attending or attended the school, while only 37% of the population is attending or attended the school in the rural area.

Table 3.3.8 shows students enrollment by level in Ethiopia since 1985/86 to 1993/94. The table shows that students enrollment is not increasing much in any level of education.

Table 3.3.9 shows the population aged 5 years and over currently attending school by level in Addis Ababa. Number of the population currently attending elementary schools (grade 1-7) decreased from 372,675 in 1984 to 331,216 in 1994. However, that attending junior and senior secondary schools and higher education increased remarkably in the same 10 years.

Mitigation of illiterate population used to be a educational target of Ethiopia. Table 3.3.10 shows population aged 10 years and over by literacy status depending on academic career in Addis Ababa. Literate percentage had been slightly improved in whole Addis Ababa from 81.9 % in 1984 to 82.5 % in 1994. However, literate percentage in rural area is still very low at 36.9 % in 1994.

3.3.4 Economic Conditions

(1) Gross Domestic Product

The Federal Government of Ethiopia set a target of an average annual economic growth rate of 7 % to 10 % in its Five Year Program (July 1995 – June 2000).

Gross Domestic Product (GDP) in 1994/95 has been estimated at 34,063 million Birr (approximately US\$ 5 billion) by MEDAC and GDP per capita in 1994/95 could be estimated at 609 Birr (approximately US\$ 90) as shown in Table 3.3.11.

Average annual growth rate of GDP during 10 years from 1984/85 to 1994/95 was 3.8 % on 1980/81 constant factor cost basis. However, average annual growth rate of GDP per capita was only 0.5 % on the same basis. This shows that the economic growth has not caught up with the rapid population growth. Figure 3.3.2 shows GDP on both current market price and 1980/81 constant factor cost basis.

Table 3.3.12 shows GDP by industrial origin in 1980/81 constant factor cost. Agricultural sector has account for approximately 50 % of total GDP. The amount and distribution of industry sector and trade, transportation and communication sector has not been increased much in these 10 years.

Gross Regional Domestic Product (GRDP) of Addis Ababa has not been officially announced yet. Region 14 Administration has just started to estimate the GRDP of Addis Ababa. It will become available soon.

(2) Agriculture

In the Five Year Program (1995-2000), it says that agriculture is the main stay of the Ethiopian economy from which about 85 % of the population earns its livelihood. Furthermore, the program stresses enhancement of the productivity of peasant agriculture.

Table 3.3.13 shows cultivation area and production of major crops for private peasant holdings. Tef, a kind of cereals and material of engera (staple food of Ethiopia) was most widely cultivated at 2.2 million ha and production was 20 million quintal in 1996/97. Both cultivation area and production of sorghum have been increased with high increasing trends at average annual growth rate, 24.9 % and 28.9 % in these five years. Millet also showed high increasing trends at 13.8 % in cultivation area and 18.2 % in production in the same period. Cultivation areas by private peasant holding has been increasing rapidly since 1992/93

In the peripheral areas of Addis Ababa, there are 25 Peasant Associations with a total population of about 28,200 practicing mixed farming. The total land coverage of the Peasant Association is estimated to be 17,000 hectares, of which 65 % and 17 % of areas are allocated to farms and pasture lands respectively. Various kinds of vegetables are cultivated in Addis Ababa. 18,300 quintal of potatoes, 18,900 quintal of carrots, 8,550 quintal of beet roots, and 7,500 quintal of Swiss chards are produced in 1996 as shown in Table 3.3.14. However, the production of vegetables is dwindling year by year. The livestock population of the Peasant Association comprises of about 25,900 heads of cattle, 6,500 sheep and goats, and 5,100 private and 5,100 draught animals.

Along the riversides of the Kebena, Bulbula, Shankla and Akaki, the land of 263 ha is used for the production of different types of vegetables as well as garden flowers.

The vegetables are produced twice a year using irrigation and rainwater. They are the sources of fresh vegetable supply for the city. About 90 percent of consumption of vegetables in Addis Ababa are produced in the city.

(3) Manufacturing Industry

The Federal Government of Ethiopia aims industrialization lead by agricultural development (ADLI). Supply of raw materials for the manufacturing sector will be improved by productivity growth of the agricultural sector.

Table 3.3.15 shows production of major manufacturing articles from 1989/90 to 1993/94 in Ethiopia. Sugar production kept large volume of production and its volume was 123,300 tons in 1993/94. Production of cotton fabrics and semi-processed skins has also been increasing remarkably. As construction materials, cement, cement blocks and tubes, and iron bars are also increasing their production year by year. The table shows that the production volume of many other manufactured articles varies so much from year to year.

(4) Import and Export

The Federal Government of Ethiopia holds up, in its Five Year Program, improvement of quality and quantity of agricultural products and increase their exports including livestock products.

Table 3.3.16 shows main export and import commodities of Ethiopia. Exports of coffee accounted for 62 % in 1996/97. Other major commodities are Leather and leather products and gold, accounted for 8.8 % and 11.4 %, respectively in the same year.

On the other hand, in 1996/97, capital goods including transport equipment and industrial machinery were the largest import commodities accounted for 36.7 %. The second largest commodities were consumer goods including durable and non-durable accounted for 16.5 %, while semi-finished goods and fuel accounted for 19.2 % and 16.5 % respectively. Distribution of reach import commodity has not been changed much in these 5 years.

Coffee is Ethiopia's important commodity of no doubt. Table 3.3.17 shows production, export and spot price of coffee in New York market. Production volume of coffee has fluctuated between 60,000 ton and 110,000 ton by year according to climate. Export volume of coffee has also fluctuated between 45,000 ton and 102,000 ton depending on the production. The spot coffee price in New York market showed downward trends since 1977 up to 1992, but it has been rising again for the last three or four years. It will be preferable for Ethiopia to have diversification of export commodities.

(5) International Balance of Payment

Table 3.3.18 shows the international balance of payment from 1992/93 until 1996/97, which was compiled by Economic Research and Planning Department of National Bank of Ethiopia, and the figures in 1995/96 and 1996/97 are preliminary estimation.

The trade balance kept deficit during 5 years from 1992/93 up to 1996/97, and in 1996/97, it came to –US\$ 841.8 million. On the other hand, the service balance has kept surplus since 1993/94 and it amounted to US\$ 100.7 million in 1996/97. Total of goods and services trade kept deficit during the same 5 years, and after the inflow of private and official transfer including foreign aid, the balance of the current account was still deficit amounted to –US\$ 203 million in 1995/96 and –US\$ 188 million in 1996/97. Basic balances in 1995/96 and 1996/97 were –US\$ 142.3 million and –US\$ 357.5 million respectively due to imbalance of import and export. Overall balances in 1995/96 and 1996/97 came to –US\$ 40.4 million and –US\$ 354.6 million respectively.

(6) Prices

Movement of the retail price in Addis Ababa continued with its upward trend as shown in Table 3.3.19. Average annual increasing ratio during 10 years from 1986 to 1996 was high at 7.5 % in general item but it slowed down to 3.9 % during 4 years from 1992 to 1996. That of food and clothing is also high at 4.1 % and 4.4 % respectively during 4 years from 1994 to 1996. Especially the price index of transportation, medical care and personal care shows remarkably high upward trend when compared with other categories. Their average annual increasing ratios were 9.4 %, 15.2 % and 13.1 % respectively in the same four years.

Since September 1996, CSA has applied a new price index based on a new classification of commodities. In the new classification, house rent, construction materials, water, fuel and power became an independent category. Monthly index until August 1997 by the new classification is presented in Table 3.3.19

(7) Foreign Currency Exchange Rate

The Ethiopian Government had been applied a fixed foreign exchange rate at 2.07 Birr equivalent to US\$ 1 until October 1992. After that it devaluated to 5.00 Birr equivalent to US\$ 1 and this fixed rate had been applied until June 1993. Since June 28, 1993, the foreign exchange rates have been decided by the weekly foreign exchange auction that takes place in Addis Ababa.

Table 3.3.20 shows foreign exchange rate between US dollar, Japanese Yen and Ethiopian Birr currencies since January 1993. The rates are middle rates at the end of each month. The exchange rate of 5.10 Birr to US\$ 1.00 in June 1993 was gradually depreciated to 6.86 Birr to US\$ 1.00 in December 1997.

3.3.5 Present Land Use of Addis Ababa

Previous municipal area of Addis Ababa was 220 km². In January 1992, the municipal area of Addis Ababa was expanded to south and it became 510 km². Table 3.3.21 shows present land use in Addis Ababa. Residential area including expansion area accounts for 185 km² or 36 % of total area, while green area, woodland and green area for permitted use including agricultural land account for 250 km² or 49 %. On the other

hand, commercial and business center accounted only for 3 km² or 0.6% of the total area although a great number of traders run their business all over the urban area of the city. Probably the places where most traders are doing their business are included in the residential areas in the table.

3.3.6 Living Condition of the Population

The Wereda Integrated Basic Services (WIBS) Baseline Survey is one of the reliable data to understand the living condition of the population. The survey was carried out nationwide by UNICEF with participation of CSA. In Addis Ababa, the survey was conducted for three weredas, i.e. Wereda 24 in 1993, Wereda 5 in 1995 and Wereda 7 in 1996. Wereda 24 is located western part of Addis Ababa and a part of the Wereda is the West Akaki river basin. Wereda 5 includes Merkato area and it belongs to the Fereja and the Kurtume river basins. Wereda 7 is located in the north of Merkato area and it belongs to the Little Akaki and the Kurtume river basin. The results of the survey are summarized below.

	Wereda 24 in 1993	Wereda 5 in 1995	Wereda 7 in 1996
1. Population	86,334	91,294	97,417
2. Households	13,200	15,368	16,767
3. Average household size	6.5	5.9	5.8
4. Ratio of male to female	90 %	89 %	84 %
5. Ratio of population below 15 years old	36 %	32 %	31 %
6. Mean age at first marriage			
- Male	24.4	23.5	23.8
- Female	16.8	16.5	16.8
7. Adult Literacy Rate	79.8 %	77.6 %	80.9 %
- Male	85.8 %	89.0 %	90.2 %
- Female	74.5 %	67.7 %	73.3 %
8. Ratio of economically active population	42 %	58 %	34 %
9. Materials of dwelling unit			
- Wood and mud wall (Chika)	91.7 %		88.0 %
- Stone and cement wall		86.4 %	
10. Average number of persons per room	2.5	3.3	2.8
11. Ownership of dwelling units			
- Own	63.2 %	17.0 %	20.3 %
- Rented	32.0 %	78.3 %	79.7 %
12. Ratio of lighting by electricity	92.7 %	99.3 %	94.5 %
13. Type of fuel energy for cooking			
- Kerosene	37.8 %	29.0 %	61.4 %
- Firewood/straw		49.2 %	27.3 %
14. Availability of access to safe water			
- Available	96.2 %	99.8 %	51.1 %
- Not stated		0.2 %	48.9 %

3.4 Finance and Fund

3.4.1 National Budget

The revenue of the Federal Government accrues from economic activities in the country through taxation system, external assistance and capital receipts such as external loans and credit. Since GDP is result of the economic activities, the revenue and GDP are closely related with each other. Table 3.4.1 shows Government revenue by source from 1991/92 up to 1997/98. Total estimated revenue for 1997/98 is 11,845 million Birr. The taxes amount to 5,827 million Birr and they account for about 48 % of the revenue, especially the ratio of the foreign trade taxes are high at 20 % of the total revenue in the same year. The external loans and credits of the capital receipt for 1997/98 is 1,171 million Birr and they accounts for about 9.9 % of the total revenue in 1992/93. This ratio has gradually been decreasing recent years. The external assistance expected for 1997/98 is about two million Birr and it accounts for about 17 % of the total revenue.

Table 3.4.2 shows Government expenditure from 1991/92 to 1997/98. The state government subsidy and regional revenue have been separated as new items since 1996/97. Capital expenditure of the Federal Government for various kinds of development projects accounted for about 24 % of the total expenditure in 1996/97. Table 3.4.3 shows capital expenditure by source of finance and purposes. Out of the capital expenditure, about 55 % were allocated from local funds in 1996/97, while external assistance and external loans accounted for 13 % and 32 % respectively. About 88 % of the capital expenditure were utilized for economic development such as road construction, mining and energy, transport and communication, industry development, natural resources, and agriculture development in 1996/97.

3.4.2 Budget of Region 14 Administration

The table below shows summery of the budget of the Region 14 Administration in recent two years. Recurrent budget is the budget for regular cost, and capital budget is the budget for projects such as flood control, road betterment, school construction, and water supply improvement. Thus, the capital budget is allocated only when it is necessary.

	Unit: million Birr					
	Planned			Actual		
	Recurrent	Capital	Total	Recurrent	Capital	Total
1996/97						
Region 14 total	285.2	426.9	712.1	272.0	246.3	518.3
Economic sector	35.7	392.1	427.8	34.9	228.0	262.9
AFCPO	-	7.6	7.6	-	0.7	0.7
1997/98						
Region 14 total	332.0	378.2	710.2	-	-	-
Economic sector	57.0	330.7	387.7	-	-	-
AFCPO	-	4.0	4.0	-	-	-

The total budget of the Region 14 Administration was about 710 million Birr and it was not changed much from the fiscal years 1996/97 to 1997/98. Actual expenditure in 1996/97 was small at 518 million Birr and it was about 73 % of the planned amount.

Almost all development projects are executed by bureaus and offices of the Economic Sector. The budget of the Economic Sector was decreased from 427.8 million Birr in 1996/97 to 387.7 million Birr in 1997/98. Actual expenditure of the Economic Sector was small at 262.9 million Birr and this was about 61 % of the planned amount.

Addis Ababa Flood Control & Prevention Office (AFCPO) has started its activity since 1995/96. The budget for the first fiscal year (1995/96) was 15.7 million Birr but it decreased to 7.6 million Birr in 1996/97 and 4 million Birr in 1997/98. Actual expenditure of AFCPO was only 0.7 million Birr in 1996/97.

The table below shows summary of the budget for the development projects of the Economic Sector in the fiscal year 1996/97.

Budget for Development Projects of the Economic Sector in 1996/97	Planned		Actual	
	Million Birr	%	Million Birr	%
1. Infrastructure development				
- Water supply and sewerage	232.6	59%	154.8	68%
- Road and drainage	52.9	13%	33.6	15%
- Comprehensive urban development	44.7	11%	13.5	6%
- Works and urban development studies	42.2	11%	20.4	9%
2. Flood control	7.6	2%	0.7	0%
3. Other projects	12.1	3%	5.0	2%
4. Others	-	-	-	-
Total	392.1		228.0	

The budget for water supply and sewerage amounted to 232.6 million Birr and it accounted for 59 % of the budget for development projects. The budget for flood

control was 7.6 million Birr and it accounted for 2 % of the total budget for development projects.

The table below shows the budget of the Region 14 Administration and the Economic Sector by source in 1996/97.

Budget by Source in 1996/97	Region 14 Administration				Economic Sector			
	Planned		Actual		Planned		Actual	
	Million Birr	%	Million Birr	%	Million Birr	%	Million Birr	%
1. Municipal government revenue	293.6	69%	196.4	80%	276.3	70%	186.7	82%
2. Foreign loan	83.3	20%	28.1	11%	76.9	20%	23.8	10%
3. Foreign assistance/grant	37.3	9%	18.4	7%	26.2	7%	14.6	6%
4. Other source	12.7	3%	3.4	1%	12.7	3%	2.9	1%
Total	426.9		246.3		392.1		228.0	

The source from the municipal government revenue accounted for about 70 % of the planned budget amount both in the Region 14 and the Economic Sector. On the other hand, the total of the foreign loans and assistants/grant accounted for nearly 30 % of the planned budget amount.

3.4.3 On-going and Proposed Projects in the Study Area

According to Planning and Economic Development Bureau of Region 14 Administration, there are several foreign aid projects under way or planed concerning water resources in the Study Area. The projects are listed in the Table 3.4.6. Some of the projects are financed by soft loans extended by African Development Fund (ADF) or International Development Association (IDA). Most projects are water supply projects. This shows the seriousness of shortage of water supply in Addis Ababa.

3.5 Resettlement

3.5.1 Legal Background

Though no clear written documents are available at present for implementation of resettlement for execution of certain projects by the government, the present practice for resettlement for certain project by Addis Ababa Municipality is as follows:

When resettlement is needed for implementation of a project, the Urban Development Works Bureau should prepare a new land for resettlement. The compensation cost for

houses should be estimated by concerned agency. When the project is a flood control project, the Addis Ababa Flood Control and Prevention Project Office should estimate the compensation cost. When the project is a road development project, the Urban Development Works Bureau should estimate the compensation cost.

The estimated compensation amount is paid to the house owner by the Municipality. People who have been living in the house of their own can construct their house by using the compensation money on the new land prepared by the government for resettlement. For those people who have been living in rented houses, the government will allocate the budget to construct houses or the government will ask for grant aid. The houses to be constructed should be in accordance with the land use regulation of the Addis Ababa Master Plan.

3.5.2 Past Practice

In late 1970's or early 1980's, one project was implemented accompanying some resettlement program. The Ministry of Urban Development Works together with the Agency for the Administration of Rented House prepared new land and low cost houses for the resettlement. It is reported that the resettlement was conducted smoothly without any social problem. The cleared area is now being used as the site of Sheraton Hotel.

In this fiscal year of 1996/97, another resettlement program was implemented for the construction of ring road in Addis Ababa. The form of compensation estimate was as shown in Table 3.5.1.

3.5.3 On-going Program

In August 1994, there happened a disastrous flood making 462 families homeless. The Addis Ababa Flood Prevention Project Office is put under an obligation to implement the resettlement of those people. The first stage of the resettlement program was to construct 6 apartment houses of 4 stories for 120 families. The new land was prepared at 6 plots in Wereda 23 Kebele 13 about 3 - 5 km far from the original place. In 1995/96 fiscal year, a budget of some 15 million Birr was once allocated for the program but actual execution was not made. In this fiscal year of 1996/97, the budget is now pending due to some constraints of budget preparation.

3.5.4 Major Issues of Resettlement

The people who have to leave their original place for new resettlement can be categorized into 2 types; the people who have owned their houses and the people who have been living in rented houses.

Those who have owned their houses can receive the compensation and may afford to construct their own houses on the site prepared by the government. Those people who have been living in rented houses will be provided with the land and house. The cost of land preparation and construction of house will be borne by the government. However, the cost of the new rent should be borne by the people.

When the resettlement is needed from riverine area where many people of low income or even no income are living, the people may not afford to pay the new rent cost of some storied apartment house. In this case, the people can not move from their place to the new resettlement place even though the land and house are provided by the government.

If the government construct low-cost house, it may be possible for the people to pay the new rent cost. Accordingly the issue of resettlement in Addis Ababa mainly lies on the government policy what kind of houses should be prepared for those people who are of low or no income and how much the rent cost should be.

Presently the government is considering a new policy that low cost house should be constructed in searching for an appropriate area and the new rent should be decided based on the income level of the people so that the people can easily resettle to the new area. The rent to be paid by the settler based on the new system may not cover the maintenance cost of the houses. The insufficient portion will be borne by the government according to the new policy.

Table 3.3.1 Population in Urban and Rural Areas of Ethiopia and Addis Ababa

	Population (1,000 persons)			Growth Rate (%)	
	1978	1984	1994	78 - 84	84 - 94
Ethiopia					
Urban					
Male	1,761	2,282	3,985	4.4%	5.7%
Female	1,959	2,587	4,234	4.7%	5.0%
Total	3,720	4,869	8,219	4.6%	5.4%
Rural					
Male	13,123	19,155	23,593	6.5%	2.1%
Female	12,566	18,592	23,127	6.7%	2.2%
Total	25,689	37,747	46,720	6.6%	2.2%
Total					
Male	14,884	21,437	27,578	6.3%	2.6%
Female	14,525	21,179	27,361	6.5%	2.6%
Total	29,409	42,616	54,939	6.4%	2.6%
Addis Ababa					
Urban					
Male	554	685	1,009	3.6%	3.9%
Female	614	738	1,076	3.1%	3.8%
Total	1,168	1,423	2,085	3.3%	3.9%
Rural					
Male	-	-	14	-	-
Female	-	-	14	-	-
Total	-	-	28	-	-
Total					
Male	554	685	1,023	3.6%	4.1%
Female	614	738	1,090	3.1%	4.0%
Total	1,168	1,423	2,113	3.3%	4.0%

Source 1. Ethiopia Statistical Abstract 1978, 1995, CSA.

2. Population and Housing Census of Ethiopia, 1984, 1994, CSA.

3. Report on the Analysis of the Addis Ababa Demographic Survey, September 1978, Central Statistic Office

Note: Numbers of population of Ethiopia and Addis Ababa in 1978 are estimated figures based on mainly on the National Sample Survey Second Round (N.S.S.II 1969 - 1977)

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(1/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density	
			84	94	1984	1994		1984	1994
01	03	30	16.8	16.9	7,401	9,428	2.5	441	558
		31	17.7	17.7	6,657	7,529	1.2	376	425
		32	13.0	13.9	6,625	6,913	0.4	510	497
		33	13.0	12.3	4,535	5,345	1.7	349	435
		34	12.6	12.2	4,267	4,879	1.3	339	400
		41	6.9	6.9	4,114	4,968	1.9	596	720
		42	10.1	10.5	6,935	7,988	1.4	687	761
		43	11.9	9.6	6,504	7,506	1.4	547	782
		44	13.1	17.7	8,508	9,011	0.6	649	509
		45	9.1	9.5	2,973	3,293	1.0	327	347
		47	12.2	15.0	4,044	4,808	1.7	331	321
		51	25.2	24.8	2,301	2,604	1.2	91	105
		52	11.0	11.2	1,792	2,040	1.3	163	182
		53	51.8	54.8	5,249	6,201	1.7	101	113
	Sub-total		224.4	233.0	71,905	82,513	1.4	320	354
01	04	26	22.0	24.0	12,060	14,480	1.8	548	603
		27	14.7	14.3	4,336	4,957	1.3	295	347
		28	13.7	13.3	5,943	5,952	0.0	434	448
		29	10.1	10.2	5,390	5,972	1.0	534	585
		35	14.8	15.2	3,079	3,473	1.2	208	228
		36	21.0	18.3	11,591	11,485	-0.1	552	628
		37	26.7	26.8	5,252	5,973	1.3	197	223
		38	10.6	11.2	3,102	3,373	0.8	293	301
		39	14.1	14.7	4,305	4,718	0.9	305	321
		40	12.8	13.3	4,155	4,893	1.6	325	368
		49	14.7	13.8	2,831	3,058	0.8	193	222
		50	26.0	25.6	4,551	5,694	2.3	175	222
	Sub-total		201.2	200.7	66,595	74,028	1.1	331	369
01	05	5	8.4	9.7	3,170	3,674	1.5	377	379
		6	28.0	22.3	4,742	4,868	0.3	169	218
		7	16.4	15.9	10,202	10,574	0.4	622	665
		12	12.9	12.6	5,064	4,442	-1.3	393	353
		15	10.3	9.2	7,357	8,410	1.3	714	914
		16	7.8	8.7	5,888	6,775	1.4	755	779
		17	9.2	9.3	4,239	4,882	1.4	461	525
		18	11.1	10.1	4,159	4,677	1.2	375	463
		19	14.2	20.0	7,351	7,095	-0.4	518	355
		20	10.6	9.4	6,543	7,737	1.7	617	823
		21	9.3	9.7	7,126	7,996	1.2	766	824
		22	11.6	11.1	6,849	7,710	1.2	590	695
23	10.0	9.1	5,393	6,347	1.6	539	697		
	Sub-total		159.8	157.1	78,083	85,187	0.9	489	542
01	06	1	18.5	18.6	6,734	7,605	1.2	364	409
		2	12.7	13.0	3,537	3,815	0.8	279	293
		3	7.7	10.3	4,648	5,416	1.5	604	526
		4	8.1	7.9	3,513	3,752	0.7	434	475
		8	20.0	18.9	6,109	7,557	2.1	305	400
		9	8.8	8.9	4,368	5,039	1.4	496	566
		10	11.1	10.3	5,894	6,242	0.6	531	606
		11	7.8	7.5	3,444	3,886	1.2	442	518
		13	48.7	38.0	9,212	11,531	2.3	189	303
		14	21.7	29.2	5,984	6,981	1.6	276	239
		24	7.0	12.3	3,369	4,266	2.4	481	347
		25	11.2	11.8	5,951	6,747	1.3	531	572
	Sub-total		183.3	186.7	62,763	72,837	1.5	342	390
Total of Zone 01			768.7	777.5	279,346	314,565	1.2	363	405
02	20	28	21.0	20.4	2,316	2,581	1.1	110	127
		29	22.5	22.5	2,980	3,375	1.3	132	150
		38	21.9	22.1	4,132	5,314	2.5	189	240

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(2/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density	
			84	94	1984	1994		1984	1994
		39	21.4	22.0	2,417	2,618	0.8	113	119
		40	52.7	51.5	4,494	5,234	1.5	85	102
		42	59.7	62.8	6,774	10,855	4.8	113	173
		43	35.2	36.6	5,461	7,926	3.8	155	217
		44	23.0	23.5	3,083	3,771	2.0	134	160
		45	41.7	42.1	5,800	7,455	2.5	139	177
		46	42.5	39.7	5,358	7,111	2.9	126	179
		51	107.0	105.7	5,320	10,629	7.2	50	101
		52	188.1	196.2	4,959	8,658	5.7	26	44
		53	76.3	71.8	2,637	6,551	9.5	35	91
		Sub-total	713.0	716.9	55,731	82,078	3.9	78	114
02	21	1	93.1	92.2	5,953	5,998	0.1	64	65
		4	54.4	53.5	4,113	4,371	0.6	76	82
		9	15.3	15.3	5,054	5,407	0.7	330	353
		10	11.9	10.3	2,600	2,679	0.3	218	260
		11	4.5	5.9	3,978	4,191	0.5	884	710
		12	12.0	11.9	2,187	2,734	2.3	182	230
		13	6.0	6.1	3,063	4,023	2.8	511	660
		14	16.9	16.4	3,124	3,387	0.8	185	207
		19	57.0	54.4	3,238	7,237	8.4	57	133
		20	22.4	8.7	3,745	4,309	1.4	167	495
		21	8.9	8.2	2,695	3,012	1.1	303	367
		22	11.5	11.5	4,667	4,591	-0.2	406	399
		23	11.4	11.4	5,871	5,383	-0.9	515	472
		24	15.6	15.4	7,275	7,548	0.4	466	490
		25	11.5	11.3	4,569	3,928	-1.5	397	348
		30	14.5	14.2	4,081	4,009	-0.2	281	282
		31	14.6	14.0	6,166	6,188	0.0	422	442
		32	10.1	9.7	3,575	3,594	0.1	354	371
		Sub-total	391.6	370.4	75,954	82,589	0.8	194	223
02	22	1	81.5	221.9	8,906	10,118	1.3	109	46
		2	19.9	20.1	5,158	5,608	0.8	259	279
		3	15.6	16.0	5,259	5,327	0.1	337	333
		4	18.9	19.1	4,497	5,042	1.2	238	264
		6	22.5	22.9	4,147	4,984	1.9	184	218
		7	58.4	58.3	4,890	5,643	1.4	84	97
		Sub-total	216.8	358.3	32,857	36,722	1.1	152	102
02	23	8	34.4	37.7	5,465	7,144	2.7	159	189
		9	18.3	17.9	4,594	5,354	1.5	251	299
		10	91.1	108.4	9,024	13,083	3.8	99	121
		11	19.8	33.6	7,522	7,507	-0.0	380	223
		12	346.5	165.9	6,376	9,912	4.5	18	60
		13	108.4	148.3	7,542	14,627	6.8	70	99
		14	669.8	669.1	4,995	16,802	12.9	7	25
		15	178.3	147.9	6,675	9,871	4.0	37	67
		16	314.4	318.9	7,682	21,178	10.7	24	66
		Sub-total	1,781.0	1,647.7	59,875	105,478	5.8	34	64
02	24	9	166.0	165.9	10,051	13,245	2.8	61	80
		10	21.9	29.7	5,139	7,878	4.4	235	265
		11	98.1	89.7	10,556	16,108	4.3	108	180
		12	108.5	80.5	6,246	7,086	1.3	58	88
		13	194.7	212.4	12,907	16,929	2.7	66	80
		14	492.7	253.8	4,895	8,565	5.8	10	34
		15	759.0	642.6	7,923	21,904	10.7	10	34
		16	-	1,646.3	-	12,141	-	-	7
		17	842.2	1,190.3	5,687	15,019	10.2	7	13
		18	-	1,517.0	-	1,496	-	-	1
		Sub-total	2,683.1	5,828.2	63,404	120,371	6.6	24	21
Total of Zone 2			5,785.5	8,921.5	287,821	427,238	4.0	50	48

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(3/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density		
			84	94	1984	1994		1984	1994	
03	17	13	30.3	40.8	5,311	7,404	3.4	175	181	
		14	33.2	33.2	3,001	3,853	2.5	90	116	
		15	33.7	32.6	3,444	4,696	3.1	102	144	
		16	40.7	41.1	3,333	5,030	4.2	82	122	
		17	61.2	64.1	4,305	7,388	5.5	70	115	
		18	150.2	113.9	4,446	7,351	5.2	30	65	
		19	78.5	69.3	3,909	4,409	1.2	50	64	
		20	2,242.7	898.4	10,085	21,446	7.8	4	24	
		21	230.6	305.7	6,233	17,429	10.8	27	57	
		23	794.7	425.0	5,421	8,770	4.9	7	21	
		24	174.7	172.3	7,960	16,232	7.4	46	94	
25	-	354.6	-	20,631	-	-	-	58		
	Sub-total		3,870.5	2,551.0	57,448	124,639	8.1	15	49	
03	18	6	43.3	43.3	4,690	6,201	2.8	108	143	
		7	23.4	23.3	2,865	3,101	0.8	122	133	
		15	20.2	20.0	5,151	6,680	2.6	255	334	
		16	17.5	18.1	2,065	2,507	2.0	118	139	
		17	23.2	23.3	5,831	7,217	2.2	251	310	
		18	29.8	29.5	3,088	4,156	3.0	104	141	
		26	32.0	32.0	1,928	2,900	4.2	60	91	
		27	65.3	64.6	5,694	6,947	2.0	87	108	
		33	24.1	24.2	2,152	2,669	2.2	89	110	
		34	23.6	23.8	2,735	3,288	1.9	116	138	
		35	23.6	34.8	4,184	5,965	3.6	177	171	
36	33.3	42.3	4,272	6,299	4.0	128	149			
41	44.0	38.0	3,187	4,043	2.4	72	106			
	Sub-total		403.3	417.2	47,842	61,973	2.6	119	149	
03	19	47	118.0	122.7	2,266	3,418	4.2	19	28	
		49	25.7	31.2	3,541	4,098	1.5	138	131	
		50	110.4	102.3	6,239	8,587	3.2	57	84	
		54	77.5	104.2	10,138	13,869	3.2	131	133	
		55	233.0	427.1	7,452	37,061	17.4	32	87	
		56	141.2	110.4	8,313	11,966	3.7	59	108	
		57	405.6	208.6	8,775	17,470	7.1	22	84	
		58	410.4	412.5	6,701	10,559	4.7	16	26	
		59	-	114.0	-	5,573	-	-	-	49
		60	-	295.0	-	4,229	-	-	-	14
	Sub-total		1,521.8	1,928.0	53,425	116,830	8.1	35	61	
03	28	1	-	352.9	-	17,530	-	-	50	
		2	-	366.0	-	15,907	-	-	43	
		3	-	505.0	-	11,141	-	-	22	
		4	-	413.0	-	12,170	-	-	29	
		5	-	65.3	-	2,354	-	-	36	
	Sub-total		0.0	1,702.2	-	59,102	-	-	35	
Total of Zone 03			5,795.6	4,091.0	158,715	362,544	8.6	27	89	
04	01	1	17.7	19.8	6,408	7,298	1.3	362	369	
		3	24.2	25.1	4,956	6,097	2.1	205	243	
		4	30.6	32.1	7,402	8,888	1.8	242	277	
		5	14.6	14.0	3,924	4,621	1.6	269	330	
		6	15.5	15.6	5,376	6,159	1.4	347	395	
		7	22.4	23.0	10,138	11,238	1.0	453	489	
		8	25.0	24.2	7,309	8,626	1.7	292	356	
			Sub-total		150.0	153.8	45,513	52,927	1.5	303
04	09	6	18.2	24.1	3,405	4,330	2.4	187	180	
		7	46.9	43.6	7,547	8,801	1.5	161	202	
		8	22.0	21.3	4,480	5,112	1.3	204	240	
		9	16.7	17.3	2,966	4,346	3.9	178	251	
		10	18.2	22.7	3,449	3,730	0.8	190	164	
11	19.1	18.8	5,942	6,923	1.5	311	368			

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(4/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density	
			84	94	1984	1994		1984	1994
		12	25.1	28.3	4,959	6,101	2.1	198	216
		20	43.3	43.4	5,891	7,611	2.6	136	175
		21	32.4	30.7	4,396	6,040	3.2	136	197
		Sub-total	241.9	250.2	43,035	52,994	2.1	178	212
04	11	1	39.7	75.1	4,149	5,883	3.6	105	78
		2	713.1	551.7	6,498	9,278	3.6	9	17
		3	7.6	7.2	2,393	2,945	2.1	315	409
		4	21.9	148.1	4,468	5,781	2.6	204	39
		5	21.8	22.8	3,258	4,294	2.8	149	188
		8	12.3	13.7	3,363	4,050	1.9	273	296
		9	13.9	14.0	2,779	3,318	1.8	200	237
		10	53.6	47.0	3,329	4,300	2.6	62	91
		13	13.2	12.9	2,361	3,197	3.1	179	248
		14	15.8	15.3	4,249	5,283	2.2	269	345
		15	5.9	7.7	2,136	2,862	3.0	362	372
		16	10.7	18.9	2,877	3,419	1.7	269	181
		17	119.9	121.2	12,923	13,118	0.1	108	108
		19	17.5	13.7	4,376	6,047	3.3	250	441
		23	367.0	320.7	9,149	15,991	5.7	25	50
		Sub-total	1,433.9	1,390.0	68,308	89,766	2.8	48	65
04	12	6	60.3	62.9	3,058	3,953	2.6	51	63
		7	196.4	263.3	8,622	12,527	3.8	44	48
		11	45.1	46.1	7,218	9,716	3.0	160	211
		12	404.4	560.7	6,772	11,452	5.4	17	20
		18	38.6	37.9	4,773	5,460	1.4	124	144
		19	325.5	263.1	2,530	3,196	2.4	8	12
		20	23.7	23.2	2,580	2,945	1.3	109	127
		21	327.0	86.7	5,383	6,546	2.0	16	76
		22	59.7	66.7	2,572	3,944	4.4	43	59
		Sub-total	1,480.7	1,410.6	43,508	59,739	3.2	29	42
04	13	1	28.2	28.9	3,874	4,580	1.7	137	158
		2	28.9	28.9	4,418	5,535	2.3	153	192
		3	47.3	98.0	9,837	12,511	2.4	208	128
		5	63.3	11.3	6,268	6,504	0.4	99	576
		6	28.4	27.9	6,122	7,001	1.4	216	251
		8	42.1	41.0	6,612	7,466	1.2	157	182
		9	24.9	25.0	3,212	4,051	2.3	129	162
		10	21.3	20.5	3,260	3,798	1.5	153	185
		11	23.6	24.0	3,319	4,190	2.4	141	175
		15	28.7	28.8	4,456	5,219	1.6	155	181
		16	23.9	23.7	3,189	3,998	2.3	133	169
		Sub-total	360.6	358.0	54,567	64,853	1.7	151	181
04	15	19	29.0	28.4	6,232	7,647	2.1	215	269
		20	26.7	26.5	4,218	4,527	0.7	158	171
		23	22.1	22.1	6,366	7,438	1.6	288	337
		26	30.2	29.8	5,021	6,445	2.5	166	216
		27	25.5	25.6	4,376	5,437	2.2	172	212
		28	22.7	23.0	3,268	4,282	2.7	144	186
		29	25.9	27.9	2,939	3,473	1.7	113	124
		30	39.5	41.4	3,489	3,312	-0.5	88	80
		31	25.5	24.5	3,611	4,122	1.3	142	168
		32	22.7	23.5	3,099	4,031	2.7	137	172
		33	22.8	20.5	4,393	5,116	1.5	193	250
		34	21.9	20.4	2,669	3,189	1.8	122	156
		35	17.7	9.7	1,982	2,514	2.4	112	259
		36	29.1	36.7	3,670	4,869	2.9	126	133
		Sub-total	361.3	360.0	55,333	66,402	1.8	153	184
04	16	1	84.9	92.6	3,604	4,229	1.6	42	46
		2	34.3	34.3	3,470	4,805	3.3	101	140
		3	40.3	40.0	2,745	3,377	2.1	68	84

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(5/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density	
			84	94	1984	1994		1984	1994
		4	32.5	41.8	5,331	7,852	3.9	164	188
		5	20.1	19.6	2,282	3,254	3.6	114	166
		6	519.1	282.4	3,873	5,732	4.0	7	20
		7	105.6	284.3	5,539	8,750	4.7	52	31
		8	35.0	32.9	4,732	6,050	2.5	135	184
		9	36.0	36.3	3,803	4,898	2.6	106	135
		10	31.1	22.1	2,793	3,845	3.2	90	174
		11	41.8	48.8	5,112	6,901	3.0	122	141
		12	39.3	36.6	3,777	5,071	3.0	96	139
		22	191.5	250.0	5,126	9,868	6.8	27	39
		Sub-total	1,211.5	1,221.7	52,187	74,632	3.6	43	61
		Total of Zone 04	5,239.9	5,144.3	362,451	461,313	2.4	69	90
05	02	9	17.2	16.8	4,874	4,694	-0.4	283	279
		10	11.8	11.9	4,018	4,708	1.6	341	396
		11	34.7	34.8	3,948	4,953	2.3	114	142
		12	24.7	24.6	2,874	3,163	1.0	116	129
		13	10.6	11.1	4,767	5,798	2.0	450	522
		14	28.1	29.1	3,444	5,141	4.1	123	177
		15	21.7	21.6	5,215	5,525	0.6	240	256
		16	16.2	16.4	3,459	3,942	1.3	214	240
		17	28.3	24.7	2,984	3,506	1.6	105	142
		Sub-total	193.3	191.0	35,583	41,430	1.5	184	217
05	07	17	29.6	30.1	4,697	5,817	2.2	159	193
		18	16.0	15.3	2,360	3,044	2.6	148	199
		19	15.1	14.9	5,126	6,418	2.3	339	431
		20	10.9	10.8	4,398	5,487	2.2	403	508
		21	8.4	10.0	4,926	5,428	1.0	586	543
		26	21.9	21.7	3,541	4,932	3.4	162	227
		27	16.2	16.7	5,029	5,832	1.5	310	349
		28	10.1	10.0	5,215	5,197	-0.0	516	520
		29	11.5	11.3	4,544	5,221	1.4	395	462
		30	14.2	14.0	5,527	6,391	1.5	389	457
		31	8.7	14.8	7,780	9,286	1.8	894	627
		32	14.7	14.6	9,443	9,802	0.4	642	671
		33	12.9	14.6	7,557	8,235	0.9	586	564
		34	10.4	10.0	6,357	5,072	-2.2	611	507
		Sub-total	200.6	209.0	76,500	86,162	1.2	381	412
05	08	1	28.3	30.6	2,999	5,127	5.5	106	168
		2	531.8	490.5	7,086	13,504	6.7	13	28
		3	24.0	24.0	2,605	4,097	4.6	109	171
		5	44.5	36.6	4,292	5,841	3.1	96	160
		6	43.5	43.9	4,553	6,038	2.9	105	138
		10	40.4	56.2	3,809	5,003	2.8	94	89
		11	25.7	24.2	4,529	5,624	2.2	176	232
		13	33.8	35.5	5,153	5,662	0.9	152	159
		14	52.9	37.1	3,819	5,208	3.2	72	140
		15	24.4	25.1	2,982	3,953	2.9	122	157
		22	13.7	9.2	1,918	2,418	2.3	140	263
		23	9.6	9.8	2,609	3,139	1.9	272	320
		24	13.7	8.0	3,339	4,123	2.1	244	515
		25	14.0	14.6	2,587	3,444	2.9	185	236
		35	376.3	531.0	6,583	14,714	8.4	17	28
		Sub-total	1,276.6	1,376.3	58,863	87,895	4.1	46	64
05	10	1	230.5	213.5	5,941	10,365	5.7	26	49
		2	34.3	35.3	4,270	5,929	3.3	124	168
		3	29.6	30.3	3,406	4,140	2.0	115	137
		4	38.2	36.9	4,197	5,502	2.7	110	149
		5	33.0	35.6	4,329	5,458	2.3	131	153
		13	37.6	35.4	5,519	7,229	2.7	147	204

Table 3.3.2 Population Census Results by Kebele in Addis Ababa

(6/6)

Zone	Wereda	Kebele	Area (ha)		Population Censuses		Annual Growth (%)	Population Density	
			84	94	1984	1994	84 - 94	1984	1994
		14	26.0	26.2	3,531	4,864	3.3	136	186
		15	15.7	15.1	5,187	5,920	1.3	330	392
		16	31.9	32.2	6,453	7,920	2.1	202	246
		17	18.5	51.7	3,475	4,435	2.5	188	86
		18	37.6	38.6	4,527	5,452	1.9	120	141
		22	407.1	378.8	8,702	13,190	4.2	21	35
		Sub-total	940.0	929.6	59,537	80,404	3.1	63	86
05	14	7	32.0	32.0	5,969	6,922	1.5	187	216
		12	11.2	10.7	7,225	7,181	-0.1	645	671
		13	27.0	27.3	4,299	4,615	0.7	159	169
		14	19.5	20.3	4,241	4,959	1.6	217	244
		17	12.2	12.0	5,202	5,570	0.7	426	464
		18	62.9	62.3	7,245	7,406	0.2	115	119
		21	18.5	18.9	6,422	7,777	1.9	347	411
		22	13.4	13.2	6,823	7,669	1.2	509	581
		24	20.9	21.4	3,681	1,546	-8.3	176	72
		25	55.3	56.2	4,535	4,241	-0.7	82	75
		Sub-total	272.9	274.3	55,642	57,886	0.4	204	211
05	25	1	166.7	125.5	6,456	11,186	5.7	39	89
		2	65.2	60.6	2,424	4,222	5.7	37	70
		3	84.7	107.8	5,182	12,378	9.1	61	115
		4	455.5	441.5	9,234	16,203	5.8	20	37
		5	32.8	33.7	3,106	4,568	3.9	95	136
		6	22.8	24.6	6,025	7,800	2.6	264	317
		7	23.8	31.4	6,191	8,762	3.5	260	279
		8	27.2	31.4	3,884	5,261	3.1	143	168
		16	287.4	315.5	6,151	10,504	5.5	21	33
		Sub-total	1,166.1	1,172.0	48,653	80,884	5.2	42	69
Total of Zone 05			4,049.5	4,152.2	334,778	434,661	2.6	83	105
06	26	1	-	124.2	-	7,935	-	-	64
		2	-	439.4	-	8,130	-	-	19
		4	-	95.6	-	5,580	-	-	58
		5	-	37.5	-	5,578	-	-	149
		6	-	469.1	-	8,392	-	-	18
		7	-	689.7	-	1,789	-	-	3
		Sub-total	-	1,855.5	-	37,404	-	-	20
06	27	3	-	127.0	-	8,260	-	-	65
		8	-	145.0	-	7,883	-	-	54
		9	-	159.0	-	7,014	-	-	44
		10	-	586.0	-	9,343	-	-	16
		11	-	536.0	-	14,363	-	-	27
		Sub-total	-	1,553.0	-	46,863	-	-	30
Total of Zone 06			-	3,408.5	-	84,267	-	-	25
Total Urban Area			21,639.2	26,495.0	1,423,111	2,084,588	3.9	66	79
Farmers Association									
		17	-	4,998.3	-	5,610	-	-	1
		19	-	2,470.8	-	2,820	-	-	1
		28	-	9,363.1	-	9,200	-	-	1
		26	-	6,347.5	-	6,522	-	-	1
		27	-	1,827.0	-	3,997	-	-	2
Total Rural Area			0.0	25,006.7	0	28,149	-	-	1
Total of Addis Ababa			21,639.2	51,501.7	1,423,111	2,112,737	4.0	66	41

Note: For areas of Kebeles, Water Supply - Stage III A by AAWSA was referred.

Source: Population and Housing Census of Ethiopia, 1984, 1994, CSA.

Table 3.3.3 Population of 10 Years and Over, Economically Active Population in Addis Ababa

	Addis Ababa				
	Population of 10 years and over	Economically Active Population	Working Population	Ratio of Economic Active Popu.	Unemployment Ratio
1984					
Urban					
Male	488,344	296,034	271,700	60.6%	8.2%
Female	545,964	174,274	149,327	31.9%	14.3%
Both Sex	1,034,308	470,308	421,027	45.5%	10.5%
Rural					
Male	-	-	-	-	-
Female	-	-	-	-	-
Both Sex	-	-	-	-	-
Total					
Male	488,344	296,034	271,700	60.6%	8.2%
Female	545,964	174,274	149,327	31.9%	14.3%
Both Sex	1,034,308	470,308	421,027	45.5%	10.5%
1994					
Urban					
Male	810,452	524,314	363,454	64.7%	30.7%
Female	880,492	365,701	213,818	41.5%	41.5%
Both Sex	1,690,944	890,015	577,272	52.6%	35.1%
Rural					
Male	10,406	8,279	7,734	79.6%	6.6%
Female	9,649	5,182	4,653	53.7%	10.2%
Both Sex	20,055	13,461	12,387	67.1%	8.0%
Total					
Male	820,858	532,593	371,188	64.9%	30.3%
Female	890,141	370,883	218,471	41.7%	41.1%
Both Sex	1,710,999	903,476	589,659	52.8%	34.7%
Growth Rate during 10 years					
Urban					
Male	66.0%	77.1%	33.8%	-	-
Female	61.3%	109.8%	43.2%	-	-
Both Sex	63.5%	89.2%	37.1%	-	-
Rural					
Male	-	-	-	-	-
Female	-	-	-	-	-
Both Sex	-	-	-	-	-
Total					
Male	68.1%	79.9%	36.6%	-	-
Female	63.0%	112.8%	46.3%	-	-
Both Sex	65.4%	92.1%	40.1%	-	-

Source: Population and Housing Census of Ethiopia, 1984, 1994, CSA

Table 3.3.4 Economically Active Population Aged 10 Years and Over by Sub-major Industry Divisions in Addis Ababa in 1994

Sub-major Industrial Division	Economically Active Population Aged 10 Years and Over (persons)													
	Urban						Rural						Total	
	Male	Female	Total	Percentage	Male	Female	Total	Percentage	Male	Female	Total	Percentage		
Agriculture, hunting, forestry and fishing	5,568	1,482	7,050	1.1%	6,019	3,333	9,352	76.3%	11,587	5,015	16,602	2.6%		
Agribusiness, hunting and related service activities	4,661	1,212	5,873	0.9%	6,001	3,529	9,530	76.2%	10,662	4,741	15,403	2.4%		
Forestry, logging and related activities	840	240	1,080	0.2%	18	4	22	0.2%	858	244	1,102	0.2%		
Fishing	67	30	97	0.0%	-	-	0	0.0%	67	30	97	0.0%		
Mineral and quarrying	1,742	310	2,053	0.3%	208	43	251	2.0%	1,950	382	2,332	0.4%		
Manufacturing	80,062	33,044	113,106	18.0%	578	293	871	7.0%	80,640	33,337	113,977	17.6%		
Food products	8,314	4,690	13,004	2.1%	57	23	80	0.6%	8,371	4,713	13,084	2.0%		
Tobacco and beverage products	3,752	2,114	5,866	0.9%	5	6	11	0.0%	3,757	2,170	5,907	0.9%		
Textiles	29,223	11,386	40,609	6.5%	148	48	196	1.6%	29,371	11,434	40,805	6.4%		
Weaving apparel, dressing and dyeing of fur	7,736	4,019	11,755	1.9%	20	14	34	0.3%	7,756	4,033	11,789	1.8%		
Tanning and dressing of leather	6,137	2,661	8,798	1.4%	83	8	91	0.7%	6,220	2,669	8,889	1.4%		
Wood and of products of wood and cork, except furniture	2,047	284	2,331	0.4%	6	-	6	0.0%	2,053	284	2,337	0.4%		
Wood and of products of wood and cork, except furniture	2,580	1,846	4,426	0.7%	-	4	4	0.0%	2,580	1,850	4,430	0.7%		
Publishing printing and reproduction of recorded media	2,497	1,452	3,949	0.6%	25	-	25	0.2%	2,522	1,452	3,974	0.6%		
Chemicals and chemical products	1,604	593	2,197	0.3%	8	-	8	0.1%	1,612	593	2,205	0.3%		
Rubber and plastics products	3,347	1,629	4,976	0.8%	180	135	315	2.5%	3,527	1,764	5,291	0.8%		
Non-metallic mineral products	4,290	373	4,663	0.7%	41	-	41	0.3%	4,331	373	4,704	0.7%		
Basic metals	1,021	111	1,132	0.2%	-	-	-	0.0%	1,021	111	1,132	0.2%		
Fabricated metal products, except machinery and equipment	5,793	1,200	6,993	1.1%	5	5	10	0.1%	5,798	1,205	7,003	1.1%		
Office and household furniture	1,741	686	2,427	0.4%	0	0	0	0.0%	1,741	686	2,427	0.4%		
Electricity, gas and water supply	7,595	2,998	10,593	1.6%	22	15	37	0.3%	7,617	2,413	10,030	1.6%		
Electricity, gas steam and hot water supply	4,428	1,281	5,709	0.9%	17	5	22	0.2%	4,445	1,286	5,731	0.9%		
Collection, purification and distribution of water	3,167	1,717	4,884	0.7%	5	10	15	0.1%	3,172	1,272	4,499	0.7%		
Construction	27,301	4,365	31,666	5.0%	242	32	274	2.2%	27,543	4,297	31,840	5.0%		
Wholesale and retail trade, repair of vehicles, personal and household goods	44,267	34,534	78,801	12.5%	165	231	396	3.2%	44,432	34,765	79,197	12.5%		
Sale, maintenance and repair of motor vehicles and motorcycles	19,536	1,454	20,990	3.3%	44	-	44	0.4%	19,580	1,454	21,034	3.3%		
Wholesale trade and commission trade, except of motor vehicles and motorcycles	10,221	5,066	15,287	2.4%	14	-	14	0.1%	10,235	5,066	15,241	2.4%		
Retail trade, except of motor vehicles and motorcycles	54,680	28,074	82,754	13.2%	107	231	338	2.7%	54,787	28,305	83,092	13.0%		
Hotels and restaurants	14,226	18,289	32,515	5.2%	11	150	170	1.4%	14,237	18,448	32,685	5.1%		
Transport, storage and communications	45,149	5,326	50,475	8.0%	58	5	63	0.5%	45,207	5,331	50,538	7.9%		
Land transport/passenger and freight	38,052	2,766	40,818	6.5%	53	-	53	0.4%	38,105	2,766	40,871	6.4%		
Water transport/passenger and freight	737	309	1,046	0.2%	-	-	-	0.0%	737	309	1,046	0.2%		
Air transport	3,034	827	3,861	0.6%	-	5	5	0.0%	3,034	832	3,866	0.6%		
Supporting and auxiliary transport activities, travel agencies	923	292	1,215	0.2%	-	-	-	0.0%	923	292	1,215	0.2%		
Post and telecommunications	2,403	1,182	3,585	0.6%	5	-	5	0.0%	2,408	1,182	3,590	0.6%		
Financial intermediation	3,380	2,108	5,488	0.9%	6	0	6	0.0%	3,386	2,108	5,494	0.9%		
Financial intermediation, except insurance and pension funding	2,721	1,608	4,329	0.7%	6	-	6	0.0%	2,727	1,608	4,335	0.7%		
Other	659	500	1,159	0.2%	-	-	-	0.0%	659	500	1,159	0.2%		
Real estate, renting and business activities	5,148	2,186	7,334	1.2%	12	0	12	0.1%	5,160	2,186	7,346	1.1%		
Real estate activities	1,752	858	2,610	0.4%	-	-	-	0.0%	1,752	858	2,610	0.4%		
Other	3,386	1,328	4,714	0.8%	12	0	12	0.1%	3,408	1,328	4,736	0.7%		
Public administration and defence	49,373	21,643	71,016	11.3%	247	23	270	1.4%	49,620	21,666	71,286	11.1%		
Education	24,728	17,736	42,464	6.8%	30	20	50	0.4%	24,758	17,756	42,514	6.6%		
Health and social work	12,435	8,232	20,667	3.3%	14	20	34	0.3%	12,449	8,252	20,701	3.2%		
Other social, cultural, personal and household activities	12,293	9,284	21,577	3.5%	16	16	32	0.1%	12,309	9,268	21,577	3.4%		
Private households with employed persons	15,954	5,940	21,894	3.5%	34	17	51	0.4%	15,988	5,967	21,945	3.4%		
Extra-territorial organization and housing	15,284	64,879	80,163	12.4%	88	140	228	1.8%	15,372	65,019	80,391	12.5%		
Not stated	2,444	1,284	3,728	0.6%	-	-	-	0.0%	2,444	1,284	3,728	0.6%		
Total	400,921	227,714	628,635	100.0%	7,637	4,674	12,311	100.0%	408,558	232,388	640,946	100.0%		

Note: This table includes the economically active population who is employed and unemployed persons who had previous work experience.
Source: The 1994 Population and Housing Census of Ethiopia, Results for Addis Ababa, CSA

**Table 3.3.5 Population Size by Ethnic Group, Urban and Rural in Addis Ababa
(as of 1994)**

Ethnic Group	Urban	Rural	Total	Distribution
Affar	633	5	638	0.0%
Agew/Awingi	1,611	0	1,611	0.1%
Agew/Kamyr	476	8	484	0.0%
Amhara	1,013,289	6,440	1,019,729	48.3%
Arborie	285	19	304	0.0%
Argoba	794	2	796	0.0%
Burji	170	0	170	0.0%
Felasha	2,087	0	2,087	0.1%
Gedeo	198	0	198	0.0%
Gewada	125	0	125	0.0%
Gidole	144	0	144	0.0%
Gumuz	163	0	163	0.0%
Sebatbet Gurgie	197,396	1,188	198,584	9.4%
Sodo Guragic	87,394	36	87,430	4.1%
Siltie	84,007	136	84,143	4.0%
Hadiya	7,959	13	7,972	0.4%
Harerri	5,788	0	5,788	0.3%
Jebelawi	261	0	261	0.0%
Keffa	1,923	5	1,928	0.1%
Kembata	4,631	3	4,634	0.2%
Alaba	175	0	175	0.0%
Kebena	816	3	819	0.0%
Oromo	386,661	19,857	406,518	19.2%
Werji	6,644	0	6,644	0.3%
Oyda	199	0	199	0.0%
Saho	205	0	205	0.0%
Sidama	1,537	7	1,544	0.1%
Somalie	3,423	0	3,423	0.2%
Tigraway	161,238	286	161,524	7.6%
Welaita	10,559	90	10,649	0.5%
Dorzie	19,519	27	19,546	0.9%
Gamo	19,855	0	19,855	0.9%
Goffa	279	2	281	0.0%
Kulo	673	0	673	0.0%
Yemsa	446	0	446	0.0%
Other ethnic group	121,460	39	121,499	5.8%
From different parents	13,490	6	13,496	0.6%
Eritreans	28,234	0	28,234	1.3%
Somalians	4,960	0	4,960	0.2%
Sudanese	760	0	760	0.0%
Other foreigners	9,354	0	9,354	0.4%
Not stated	1,637	11	1,648	0.1%
Total	2,084,588	28,149	2,112,737	100.0%

Source: The 1994 Population and Housing Census of Ethiopia, Results for Addis Ababa, CSA

**Table 3.3.6 Population Size by Religion, Urban and Rural in Addis Ababa
(as of 1994)**

Ethnic Group	Population (persons)			Distribution
	Urban	Rural	Total	
Christian				
Orthodox	1,705,425	26,949	1,732,374	82.0%
Protestant	81,505	254	81,759	3.9%
Catholic	16,484	4	16,488	0.8%
Muslim	266,836	857	267,693	12.7%
Others	12,366	18	12,384	0.6%
Traditional	382	3	385	0.0%
Not staged	1,590	64	1,654	0.1%
Total	2,084,588	28,149	2,112,737	100.0%

Source: The 1994 Population and Housing Census of Ethiopia, Results for Addis Ababa, CSA

**Table 3.3.7 Population Aged Five Years and Over by Status of School
Attendance, Urban and Rural in Addis Ababa
(as of 1994)**

Status of School Attendance	Population Aged 5 Years and Over (persons)			Distribution
	Urban	Rural	Total	
Attending now	703,376	3,190	706,566	36.6%
Male	341,505	1,841	343,346	17.8%
Female	361,871	1,349	363,220	18.8%
Attended in the past	894,027	5,198	899,225	46.6%
Male	474,091	3,228	477,319	24.7%
Female	419,936	1,970	421,906	21.9%
Never attended	296,393	15,175	311,568	16.1%
Male	96,156	7,127	103,283	5.4%
Female	200,237	8,048	208,285	10.8%
Not stated	12,202	404	12,606	0.7%
Male	4,807	235	5,042	0.3%
Female	7,395	169	7,564	0.4%
Total	1,905,998	23,967	1,929,965	100.0%
Male	916,559	12,431	928,990	48.1%
Female	989,439	11,536	1,000,975	51.9%

Source: The 1994 Population and Housing Census of Ethiopia, Results for Addis Ababa, CSA

Table 3.3.8 Students Enrollment by Level in Government and Non-government Schools

Unit: thousand persons

Year	Elementary School (1 - 6)		Junior High School (7 - 8)		Senior High School (9 - 12)		University		Total		
	Govt.	Non-govt.	Govt.	Non-govt.	Govt.	Non-govt.	Govt.	Non-govt.	Govt.	Non-govt.	
1985/86	2,178.3	270.5	329.4	32.8	285.9	6.5	18.4	-	2,812.0	309.72	3,121.7
1986/87	2,449.0	287.5	385.1	38.9	311.1	7.2	17.6	-	3,162.8	333.6	3,496.4
1987/88	2,585.7	298.3	420.8	43.2	371.4	7.4	17.1	-	3,395.0	348.87	3,743.9
1988/89	2,549.0	306.1	401.6	45.9	418.1	8.2	17.2	-	3,385.9	360.17	3,746.1
1989/90	2,356.9	305.3	369.0	49.5	442.7	9.1	17.0	-	3,185.7	363.78	3,549.5
1990/91	1,825.4	260.6	285.9	49.0	369.9	7.3	17.2	-	2,498.4	316.88	2,815.3
1991/92	1,454.4	234.9	254.6	46.9	348.1	6.7	14.5	-	2,071.5	288.54	2,360.1
1992/93	1,638.9	217.0	292.8	56.0	358.1	5.6	15.2	-	2,305.0	278.55	2,583.5
1993/94	2,041.1	242.5	302.8	54.6	350.0	7.2	15.4	-	2,709.3	304.59	3,013.7
1994/95								-	0.0	0.0	0.0
1995/96								-	0.0	0.0	0.0

Source: Ethiopia Statistical Abstract 1988, 1990, 1992, 1995, CSA

Table 3.3.9 Population Aged Five Years and Over Currently Attending School by Level, Urban and Rural in Addis Ababa

	Population Aged 5 Years and Over (persons)							Total	Distribution
	Level of School								
	Pre school	1-6	7-8	9-12	Above 12	Non regular	Total		
1984									
Urban	29,618	372,675	86,632	115,236	17,663	118,559	740,383	100.0%	
Male	12,941	170,488	43,667	60,636	12,556	41,318	341,606	46.1%	
Female	16,677	202,187	42,965	54,600	5,107	77,241	398,777	53.9%	
Rural	0	0	0	0	0	0	0	0.0%	
Male	-	-	-	-	-	-	0	0.0%	
Female	-	-	-	-	-	-	0	0.0%	
Total									
Male	29,618	372,675	86,632	115,236	17,663	118,559	740,383	100.0%	
Female	12,941	170,488	43,667	60,636	12,556	41,318	341,606	46.1%	
	16,677	202,187	42,965	54,600	5,107	77,241	398,777	53.9%	
1994									
Urban	12,256	329,359	122,827	172,858	29,465	36,611	703,376	99.5%	
Male	6,210	157,124	57,137	83,569	20,563	17,102	341,505	48.3%	
Female	6,046	172,235	65,690	89,489	8,902	19,509	361,871	51.2%	
Rural	86	1,857	499	451	48	249	3,190	0.5%	
Male	50	1,049	294	274	52	142	1,841	0.3%	
Female	36	808	205	177	16	107	1,349	0.2%	
Total									
Male	12,342	331,216	123,326	173,309	29,513	36,860	706,566	100.0%	
Female	6,260	158,173	57,431	83,643	20,595	17,244	343,346	48.6%	
	6,082	173,043	65,895	89,666	8,918	19,616	363,220	51.4%	

Source: The Population and Housing Censuses of Ethiopia, Results for Addis Ababa, 1984 and 1994, CSA

Table 3.3.10 Population Aged 10 Years and over by Literacy Status, Highest Grade Completed, Sex, Urban and Rural in Addis Ababa

Urban/Rural and Sex	All persons	Literate Population (persons)							Illiterate		Literate Percentage
		Elementary		Junior Secondary			Senior Secondary		Total	(including not stated)	
		1-3	4-6	7-8	9-12	Above	Non Regular				
1984											
Urban	1,034,308	312,210	216,215	105,360	172,052	41,398	0	847,235	187,073	81.9%	
Male	488,344	135,017	115,285	56,687	98,834	28,650	n.a.	434,473	53,871	89.0%	
Female	545,964	177,193	100,930	48,673	73,218	12,748	n.a.	412,762	133,202	75.6%	
Rural	-	-	-	-	-	-	-	-	-	-	
Male	-	-	-	-	-	-	-	-	-	-	
Female	-	-	-	-	-	-	-	-	-	-	
Total	1,034,308	312,210	216,215	105,360	172,052	41,398	0	847,235	187,073	81.9%	
Male	488,344	135,017	115,285	56,687	98,834	28,650	0	434,473	53,871	89.0%	
Female	545,964	177,193	100,930	48,673	73,218	12,748	0	412,762	133,202	75.6%	
1994											
Urban	1,690,944	172,891	339,157	249,950	454,820	116,756	70,917	1,404,491	286,453	83.1%	
Male	810,452	77,765	170,313	125,256	249,012	77,022	27,805	727,173	83,279	89.7%	
Female	880,492	95,126	168,844	124,694	205,808	39,734	43,112	677,318	203,174	76.9%	
Rural	20,055	1,670	1,959	1,086	1,183	76	1,429	7,403	12,652	36.9%	
Male	10,406	1,050	1,149	629	766	54	856	4,504	5,902	43.3%	
Female	9,649	620	810	457	417	22	573	2,899	6,750	30.0%	
Total	1,710,999	174,561	341,116	251,036	456,003	116,832	72,346	1,411,894	299,105	82.5%	
Male	820,858	78,815	171,462	125,885	249,778	77,076	28,661	731,677	89,181	89.1%	
Female	890,141	95,746	169,654	125,151	206,225	39,756	43,685	680,217	209,924	76.4%	

Source: The Population and Housing Censuses of Ethiopia, Results for Addis Ababa, 1984 and 1994, CSA

Table 3.3.11 Gross Domestic Product

Year	At Current Market Price			At 1980/81 Constant Factor Cost					
	GDP		GDP Per Capita	GDP		GDP Per Capita			
	Amount (Million Birr)	Growth Rate	Amount (Birr)	Amount (Million Birr)	Growth Rate	Amount (Birr)	Growth Rate		
1980/81	10,079	-	278	9,325	-	258	-		
1981/82	10,636	5.5%	285	9,374	0.5%	251	-2.4%		
1982/83	11,775	10.7%	307	10,327	10.2%	269	7.0%		
1983/84	10,988	-6.7%	278	9,676	-6.3%	245	-8.9%		
1984/85	13,027	18.6%	320	8,735	-9.7%	215	-12.4%		
1985/86	13,575	4.2%	322	9,597	9.9%	228	6.2%		
1986/87	14,391	6.0%	331	10,949	14.1%	252	10.4%		
1987/88	14,971	4.0%	334	10,948	0.0%	244	-2.9%		
1988/89	15,742	5.2%	341	10,986	0.4%	238	-2.7%		
1989/90	16,826	6.9%	353	11,433	4.1%	240	1.0%		
1990/91	19,195	14.1%	390	10,938	-4.3%	222	-7.4%		
1991/92	20,792	8.3%	409	10,535	-3.7%	207	-6.7%		
1992/93	26,690	28.4%	509	11,799	12.0%	225	8.6%		
1993/94	28,355	6.2%	524	11,999	1.7%	222	-1.5%		
1994/95	34,063	20.1%	609	12,644	5.4%	226	2.0%		
Average Annual Growth Rate									
1984/85-1994/95 (last 10 years)							6.7%	3.8%	0.5%
1989/90-1994/95 (last 5 years)							11.5%	2.0%	-1.2%

Source: National Account of Ethiopia, Revised Series, 1980/81 - 1994/95, MEDAC

Table 3.3.12 Gross Domestic Product by Industrial Origin in 1980/81 Constant Factor Cost

Industrial Origin	1984/85		1985/86		1986/87		1987/88		1988/89		1989/90		1990/91		1991/92		1992/93		1993/94		1994/95	
	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)	Amount (Mil. Birr)	Share (%)
1. Agriculture	4,079	46.7%	4,732	49.3%	5,620	51.3%	5,465	49.9%	5,521	50.8%	5,814	50.9%	6,115	55.9%	5,948	56.5%	6,308	58.5%	6,078	50.7%	6,284	49.7%
Agriculture	3,441	39.4%	4,023	41.9%	4,894	44.7%	4,724	43.2%	4,765	43.4%	5,043	44.1%	5,331	48.7%	5,147	48.0%	5,448	49.5%	5,272	43.9%	5,450	43.1%
Forestry	634	7.3%	706	7.4%	722	6.6%	736	6.7%	751	6.8%	767	6.7%	780	7.1%	795	7.5%	835	6.9%	801	6.7%	829	6.6%
Hunting and Fishing	4	0.0%	4	0.0%	4	0.0%	4	0.0%	4	0.0%	4	0.0%	5	0.0%	5	0.0%	5	0.0%	6	0.0%	6	0.0%
2. Industries	1,285	14.7%	1,369	14.3%	1,479	13.5%	1,423	13.0%	1,328	12.1%	1,285	11.1%	1,024	9.4%	951	9.0%	1,022	10.4%	1,307	10.9%	1,413	11.2%
Mining and Quarrying	25	0.3%	24	0.3%	21	0.2%	17	0.2%	20	0.2%	19	0.2%	32	0.3%	39	0.4%	57	0.5%	45	0.4%	49	0.4%
Manufacturing	458	5.2%	508	5.3%	566	5.2%	585	5.4%	576	5.2%	557	4.9%	336	3.1%	306	2.9%	456	3.9%	514	4.3%	563	4.4%
Handicraft and Small Scale Industry	202	2.3%	234	2.4%	253	2.3%	234	2.1%	211	1.9%	233	2.0%	201	1.8%	201	1.9%	234	2.0%	238	2.0%	257	2.0%
Building and Construction	464	5.3%	457	4.8%	484	4.5%	423	3.9%	350	3.2%	282	2.5%	255	2.3%	218	2.1%	277	2.3%	303	2.5%	325	2.6%
Electricity and Water	136	1.6%	146	1.5%	154	1.4%	164	1.5%	171	1.6%	175	1.5%	180	1.6%	187	1.8%	198	1.7%	208	1.7%	219	1.7%
3. Trade, Transportation and Communication	1,405	16.1%	1,453	15.1%	1,671	15.3%	1,728	15.8%	1,603	14.9%	1,706	14.9%	1,305	11.9%	1,272	12.1%	1,555	13.2%	1,651	13.8%	1,757	13.9%
Wholesale and Retail Trade	933	10.7%	925	9.6%	1,135	10.4%	1,157	10.6%	1,037	9.4%	1,118	9.8%	761	7.0%	648	6.2%	887	7.8%	945	7.9%	1,028	8.1%
Transport and Communication	471	5.4%	528	5.5%	536	4.9%	571	5.2%	596	5.4%	588	5.1%	544	5.0%	624	5.9%	668	5.7%	706	5.9%	730	5.8%
4. Other Services	1,967	22.5%	2,043	21.3%	2,179	19.9%	2,333	21.3%	2,504	22.8%	2,645	23.2%	2,494	22.8%	2,364	22.4%	2,714	23.0%	2,963	24.7%	3,191	25.2%
Banking, Insurance and Real Estate	274	3.1%	285	3.0%	348	3.2%	380	3.5%	373	3.4%	369	3.2%	313	2.9%	268	2.5%	311	2.6%	366	3.1%	414	3.3%
Public Administration and Defence	792	9.1%	822	8.6%	852	7.8%	933	8.5%	1,053	9.6%	1,148	10.0%	946	9.0%	842	8.0%	1,006	9.3%	1,214	10.1%	1,328	10.5%
Ownership of dwellings	276	3.2%	286	3.0%	295	2.7%	304	2.8%	316	2.9%	330	2.9%	342	3.1%	353	3.3%	367	3.1%	382	3.2%	397	3.1%
Educational Services	210	2.4%	213	2.2%	220	2.0%	228	2.1%	243	2.2%	249	2.2%	271	2.5%	279	2.6%	271	2.3%	278	2.3%	288	2.3%
Medical and Health Services	79	0.9%	82	0.8%	87	0.8%	88	0.8%	92	0.8%	94	0.8%	91	0.8%	100	0.9%	115	1.0%	137	1.1%	147	1.2%
Domestic Services and Others	337	3.9%	356	3.7%	377	3.4%	399	3.6%	427	3.9%	458	4.0%	492	4.5%	522	5.0%	554	4.7%	587	4.9%	618	4.9%
5. Total	8,725	100.0%	9,597	100.0%	10,949	100.0%	10,948	100.0%	10,986	100.0%	11,433	100.0%	10,938	100.0%	10,535	100.0%	11,799	100.0%	11,999	100.0%	12,644	100.0%

Source: National Account of Ethiopia, Revised Series 1980/81 - 1993/94, MEDAC

Table 3.3.13 Cultivation Area and Production of Major Crops for Private Peasant Holdings in Ethiopia

Kind of Crops	1989/90		1990/91		1991/92		1992/93		1993/94		1994/95		1995/96		1996/97		Average Annual Growth Rate (last 5 years)	
	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Cultivation Area (1,000 ha)	Production (1,000 qt)	Area	Production
Cereals	4,915	6,089	4,295	55,779	4,263	49,291	3,945	51,488	5,238	51,053	6,449	58,485	6,653	82,697	6,689	86,293	6.8%	11.9%
Barley	912	1,063	712	8,034	736	7,851	575	7,852	930	8,713	1,136	9,270	826	8,725	698	7,424	-1.1%	-1.1%
Maize	1,278	2,956	1,121	13,479	987	15,106	809	13,916	1,208	13,379	1,418	13,637	1,281	25,393	1,317	25,320	5.9%	10.9%
Sorghum	738	973	508	6,797	460	5,647	444	6,251	751	7,015	918	6,960	1,252	17,227	1,400	20,073	24.9%	28.9%
Millet	155	153	168	2,219	152	1,283	176	1,353	251	1,767	230	2,229	269	2,413	291	2,962	13.8%	18.2%
Teff	1,227	1,046	1,279	18,139	1,368	11,846	1,386	13,560	1,425	12,546	1,899	18,582	2,097	17,524	2,168	20,019	9.6%	11.1%
Wheat	605	799	507	7,112	560	7,557	556	8,577	723	7,633	801	7,271	882	10,763	772	10,016	6.6%	5.8%
Oats	0	0	0	0	0	0	0	0	0	0	46	436	45	652	43	479	-	-
Oil Seeds	205	77	223	2,879	139	785	231	696	230	763	312	997	364	1,433	439	1,584	25.8%	15.1%
Linseed (Flax)	70	34	64	842	139	273	90	258	80	346	115	554	113	568	148	676	1.3%	19.9%
Neug	133	42	159	2,057	0	512	141	428	150	417	197	443	223	835	251	835	378.4%	103.7%
Rapeseed	-	-	-	-	-	-	-	-	-	-	-	-	14	**	21	**	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	5	5	**	**	-	-
Sesame	2	0	0	0	0	0	0	0	0	0	0	0	9	**	19	73	-	-
Pulses	586	590	637	8,964	653	5,832	702	5,766	1,640	5,182	920	7,947	904	8,141	905	8,026	6.8%	6.6%
Chickpeas	121	101	118	1,508	111	764	110	601	131	721	179	1,245	145	1,232	148	1,265	6.0%	10.6%
Field peas	85	97	125	1,769	144	1,064	139	1,037	146	858	163	1,485	180	1,396	158	1,063	1.9%	0.0%
Haricot beans	110	83	105	1,380	53	463	40	315	897	264	88	456	101	784	113	948	16.1%	15.4%
Horse beans	228	280	245	3,673	297	3,262	298	3,121	328	2,595	343	3,748	337	3,594	329	3,207	2.1%	-0.3%
Lentils	39	30	44	635	48	279	45	250	48	243	62	379	65	332	53	345	1.9%	4.4%
Vetch	0	0	0	0	0	0	70	442	90	501	85	634	76	804	104	1,199	-	-
Other Crops	15	1,401	15	12,762	13	13,561	12	12,860	10	11,363	0	0	27	74	35	226	22.6%	-55.9%
Sugar cane	15	1,401	15	12,762	13	13,561	12	12,860	10	11,363	-	-	-	-	-	-	-	-
Groundnut	-	-	-	-	-	-	-	-	-	-	-	-	13	**	17	125	-	-
Peanutree	-	-	-	-	-	-	-	-	-	-	-	-	14	74	17	100	-	-
Total Cultivation Area	5,720	5,169	5,068	4,889	7,168	7,681	7,949	8,067	9,77%									

Note: ** These estimates could not be reported because of high coefficient of variation (i.e. less reliable).

Source: Ethiopia Statistical Abstract 1990, 1992, 1995, CSA

Agricultural Sample Survey 1996/97 Volume 1: Area and Production for Major Crops

Table 3.3.14 Vegetable Production in Addis Ababa

Kind of Vegetable	1993		1994		1995		1996	
	Cultivation area (ha)	Production (quintal)	Cultivation area (ha)	Production (quintal)	Cultivation area (ha)	Production (quintal)	Cultivation area (ha)	Production (quintal)
Potato	120	24,000	102	20,440	91	18,200	92	18,300
Tomato	2	800	-	-	-	-	-	-
Carrot	99	19,800	99	19,840	94	18,800	95	18,900
Onion	16	1,280	-	-	-	-	-	-
Pepper	-	-	-	-	-	-	-	-
Beet root	28	8,400	41	12,210	28	8,400	29	8,550
Head cabbage	33	6,600	36	10,725	35	10,500	36	7,100
Lettuce	7	420	11	630	11	660	11	1,650
Leek	17	1,360	28	2,770	21	2,050	21	1,640
Swiss chard	-	-	60	9,068	49	7,118	50	7,500
Pumpkin	2	800	2	800	2	800	2	800
Phosoline	-	-	2	40	2	-	2	40
Cauliflower	-	-	3	500	2	400	2	400
Ceary	4	-	4	-	4	-	1	60
Plum	4	-	4	-	4	-	4	-
Enset	-	-	7	-	7	-	7	-
Total	328	63,460	388	77,083	347	66,928	338	64,940

Source: Agricultural Bureau, Addis Ababa Administration

Table 3.3.15 Production of Major Manufactured Articles in Ethiopia

(1/2)

Manufactured Articles	Unit	Production Volume					Growth Ratio				
		1989/90	1990/91	1991/92	1992/93	1993/94	89/90-90/91	90/91-91/92	91/92-92/93	92/93-93/94	
Food Stuff											
Meat	tons	1,902	1,972	158	292	161	3.7%	-92.0%	84.8%	-44.9%	
Vegetable soup	tons	4,455	4,235	-	615	262	-4.9%	-	-	-57.4%	
Zigin and shiro wett	tons	12,158	7,726	385	1,404	231	-36.5%	-95.0%	264.7%	-83.5%	
Orange juice	tons	29	15	28	80	103	-48.3%	86.7%	185.7%	28.8%	
Marmalade	tons	2,343	1,586	1,101	1,127	25	-32.3%	-30.6%	2.4%	-97.8%	
Tomato paste	tons	413	1,296	1,005	1,223	1,012	213.8%	-22.5%	21.7%	-17.3%	
Milk pasteurized	hl.	113,461	74,847	34,511	24,180	31,042	-34.0%	-53.9%	-29.9%	28.4%	
Butter and Ghee	tons	142	90	429	38	75	-36.6%	376.7%	-91.1%	97.4%	
Cheese	tons	12	-	-	-	3	-	-	-	-	
Edible oil	tons	8,669	6,351	5,289	4,068	4,217	-26.7%	-16.8%	-24.2%	5.2%	
Oil cakes	tons	36,984	34,027	26,165	14,893	10,485	-8.0%	-23.1%	-43.1%	-29.6%	
Flour (wheat)	tons	191,549	176,025	87,781	62,253	196,398	-8.1%	-50.1%	-29.1%	215.5%	
Flour (other)	tons	19,389	23,356	6,466	309	2,254	20.5%	-72.3%	-95.2%	629.4%	
Fafa, dube, edget, mitin	tons	14,561	16,338	14,288	3,869	6,483	12.2%	-12.5%	-72.9%	67.6%	
Macaroni and pasta	tons	15,240	14,574	3,285	5,747	11,189	-4.4%	-77.5%	74.9%	94.7%	
Biscuits	tons	65	340	317	169	6,793	423.1%	-6.8%	-46.7%	3919.5%	
Galletta	tons	19,051	18,243	3,510	2,730	1,369	-4.2%	-80.8%	-22.2%	-49.9%	
Bread	tons	42,858	37,353	31,229	18,980	12,360	-12.8%	-16.4%	-39.2%	-34.9%	
Sugar	tons	171,263	142,776	149,517	136,727	123,300	-16.6%	4.7%	-8.6%	-9.8%	
Tea	tons	-	-	-	-	2,562	-	-	-	-	
Molasses	tons	58,604	49,524	51,121	46,238	54,176	-15.5%	3.2%	-9.6%	17.2%	
Sweets	tons	3,496	1,565	973	1,025	1,691	-55.2%	-37.8%	5.3%	65.0%	
Animal feeds	tons	28,192	20,697	11,186	7,129	6,919	-26.6%	-46.0%	-36.3%	-2.9%	
Beverages											
Beer	1000 ltrs	**	43,501	42,755	52,227	63,441	**	-1.7%	22.2%	21.5%	
Wine	1000 ltrs	**	6,947	6,080	6,887	5,733	**	-12.5%	13.3%	-16.8%	
Liquors	1000 ltrs	**	5,093	3,459	3,266	2,521	**	-32.1%	-5.6%	-22.8%	
Alcohol	1000 ltrs	**	494	380	412	1,439	**	-23.1%	8.4%	249.3%	
Lemonade	1000 ltrs	**	66,775	57,032	55,382	54,617	**	-14.6%	-2.9%	-1.4%	
Mineral water	1000 ltrs	**	12,477	12,763	15,926	23,264	**	2.3%	24.8%	46.1%	
Malt	tons	**	8,370	7,151	6,362	6,387	**	-14.6%	-11.0%	0.4%	
Tobacco											
Cigarettes	mil. pcs	2,258	2,416	1,879	1,932	1,468	7.0%	-22.2%	2.8%	-24.0%	
Textiles											
Cotton fabrics	1000 sq.m	64,484	32,094	30,360	36,423	60,591	-50.2%	-5.4%	20.0%	66.4%	
Nylon fabrics	1000 sq.m	5,005	3,123	2,386	3,840	3,752	-37.6%	-23.6%	60.9%	-2.3%	
Acrylic yarn	tons	658	195	97	505	470	-70.4%	-50.3%	420.6%	-6.9%	
Cotton yarn	tons	8,938	4,461	3,838	3,448	5,669	-50.1%	-14.0%	-10.2%	64.4%	
Woolen fabrics	sq.m	-	-	-	-	40	-	-	-	-	
Blanket (woolen)	pcs	384,461	95,877	115,689	675,970	946,566	-75.1%	20.7%	484.3%	-40.0%	
Blanket (waste cotton)	pcs	595,849	506,721	264,646	415,218	510,191	-15.0%	-47.8%	56.9%	22.9%	
Carpets	sq.m	-	1,862	6,237	12,177	13,457	-	235.0%	95.2%	10.5%	
Gunny bags	1000 pcs	9,602	6,575	3,924	1,925	1,499	-31.5%	-40.3%	-50.9%	-22.1%	
Hosiery	dozen	196,110	214,039	108,981	142,895	76,652	9.1%	-49.1%	31.1%	-46.4%	
Wearing apparel (exc. leather)	dozen	-	-	-	-	557,976	-	-	-	-	
Wearing apparel (leather)	pcs	-	-	-	-	22,464	-	-	-	-	
Sweater	dozen	-	-	-	-	40,776	-	-	-	-	
Sewing thread	tons	181	119	53	67	33	-34.3%	-55.5%	26.4%	-50.7%	
Embroidery thread	tons	50	32	19	24	12	-36.0%	-40.6%	26.3%	-50.0%	
Jano thread	tons	68	98	21	26	8	44.1%	-78.6%	23.8%	-69.2%	

Table 3.3.15 Production of Major Manufactured Articles in Ethiopia

(2/2)

Manufactured Articles	Unit	Production Volume					Growth Ratio				
		1989/90	1990/91	1991/92	1992/93	1993/94	89/90-90/91	90/91-91/92	91/92-92/93	92/93-93/94	
Leather and Footwear											
Leather shoes and boots	1000 pairs	1,976	1,270	874	929	1,199	-35.7%	-31.2%	6.3%	29.1%	
Canvas and rubber shoes	1000 pairs	3,390	1,900	1,425	2,031	1,609	-44.0%	-25.0%	42.5%	-20.8%	
Plastic footwear	1000 pairs	-	204	120	123	62	-	-41.2%	2.5%	-49.6%	
Leather upper and lining	1000 sq.m	15,011	4,494	5,438	3,829	3,039	-70.1%	21.0%	-29.6%	-20.6%	
Leather sole	tons	76	142	40	110	28	86.8%	-71.8%	175.0%	-74.5%	
Semi processed skins	1000 pcs	7,540	8,920	8,578	6,670	10,649	18.3%	-3.8%	-22.2%	59.7%	
Leather garment	1000 sq.m	-	24	139	135	1,118	-	479.2%	-2.9%	728.1%	
Crust hides & wet blue hide	1000 sq.m	8,440	4,514	3,613	2,927	3,871	-46.5%	-20.0%	-19.0%	32.3%	
Wood											
Timber	cu.m	4,946	149	974	1,088	10,669	-97.0%	553.7%	11.7%	880.6%	
Plywood	cu.m	1,955	1,426	2,633	1,528	4,301	-27.1%	84.6%	-42.0%	181.5%	
Particle board	cu.m	9,910	8,664	9,910	11,937	9,306	-12.6%	14.4%	20.5%	-22.0%	
Chemical											
Soap	tons	8,603	4,143	5,497	17,273	14,994	-51.8%	32.7%	214.2%	-13.2%	
Carbon dioxide	tons	788	909	959	482	722	15.4%	5.5%	-49.7%	49.8%	
Oxygen	cu.m	174,486	155,579	148,053	169,842	200,473	-10.8%	-4.8%	14.7%	18.0%	
Plastic crate	1000 pcs	164	172	107	148	317	4.9%	-37.8%	38.3%	114.2%	
Paints	1000 ltrs	1,081	1,514	859	2,254	2,996	40.1%	-43.3%	162.4%	32.9%	
Varnishes and lacquers	1000 ltrs	140	74	52	379	265	-47.1%	-29.7%	628.8%	-30.1%	
Capsules	mil. pcs	231	142	145	215	189	-38.7%	2.6%	48.0%	-12.4%	
Tablets	mil. pcs	488	315	246	376	387	-35.4%	-21.9%	52.6%	3.0%	
Antibiotics	1000 pcs	7,858	5,610	4,649	4,596	4,333	-28.6%	-17.1%	-1.1%	-5.7%	
Syrup	1000 ltrs	150	115	68	140	133	-23.3%	-40.9%	105.9%	-5.0%	
Ointment	tons	216	69	66	94	83	-68.1%	-4.3%	42.4%	-11.7%	
Injection of 100A	1000 pcs	7,638	5,095	4,853	6,178	4,214	-33.3%	-4.7%	27.3%	-31.8%	
Tires	1000 pcs	118	65	66	100	171	-45.2%	2.3%	50.6%	71.7%	
Tubes	1000 pcs	78	28	4	25	43	-64.7%	-85.8%	538.5%	71.5%	
Electric wires	1000 m	7,256	6,647	7,167	8,623	15,640	-8.4%	7.8%	20.3%	81.4%	
Polyethylene products	tons	694	436	560	483	1,288	-37.2%	28.4%	-13.8%	166.7%	
Candles	tons	155	107	319	325	348	-31.0%	198.1%	1.9%	7.1%	
Ballpoint pen	1000 pcs	4,214	3,606	3,050	4,816	6,538	-14.4%	-15.4%	58.9%	34.9%	
Non-metallic Mineral Products											
Cement	1000 tons	324	270	237	377	464	-16.7%	-12.3%	59.2%	23.2%	
Cement blocks and tubes	1000 pcs	1,800	1,575	2,068	2,353	6,537	-12.5%	31.3%	13.8%	177.8%	
Cement floor tiles	1000 sq.m	144	147	135	109	204	2.2%	-8.6%	-19.4%	87.6%	
Bricks of clay	1000 pcs	19,010	21,680	21,198	19,790	19,532	14.0%	-2.2%	-6.6%	-1.3%	
Lime	tons	3,040	3,680	3,680	3,680	2,727	21.1%	0.0%	0.0%	-25.9%	
Glasses	1000 pcs	113	419	419	933	1,687	270.8%	0.0%	122.7%	80.8%	
Glass bottles	1000 pcs	1,983	11,940	5,033	4,742	12,256	502.1%	-57.8%	-5.8%	158.5%	
Metal											
Iron Bars	tons	7,447	5,115	2,904	5,518	8,920	-31.3%	-43.2%	90.0%	61.7%	
Wires	tons	377	59	297	320	494	-84.4%	403.4%	7.7%	54.4%	
Nails	tons	953	875	181	2,389	3,092	-8.2%	-79.3%	1219.9%	29.4%	
Iron sheets	tons	12,750	7,586	2,329	3,498	20,002	-40.5%	-69.3%	50.2%	471.8%	
Crown cork	1000 gross	3,261	2,090	2,207	1,857	3,232	-35.9%	5.6%	-15.9%	74.0%	
Motor vehicle spring	tons	317	248	25	279	533	-28.5%	-89.9%	1016.0%	91.0%	

Note: '-': Appropriate data are not available.

Source: Ethiopia Statistical Abstract 1992, 1995, CSA

Table 3.3.16 Export and Import by Major Commodities (1/2)

Commodities	Unit	Export									
		1992/93		1993/94		1994/95		1995/96		1996/97	
		Amount	Distribution	Amount	Distribution	Amount	Distribution	Amount	Distribution	Amount	Distribution
Coffee	value Million US\$	125.79	56.6%	158.27	56.6%	287.81	63.5%	272.89	66.5%	348.60	62.1%
	volume 1,000 ton	63.38		73.00		82.20		97.58		117.92	
	price Million US\$	1.98		2.17		3.50		2.80		2.96	
Pulses	value Million US\$	0.95	0.4%	4.77	1.7%	16.52	3.6%	12.22	3.0%	14.12	2.5%
	volume 1,000 ton	1.53		9.80		26.11		28.97		30.00	
	price Million US\$	0.62		0.49		0.63		0.42		0.47	
Oilseeds	value Million US\$	0.28	0.1%	7.61	2.7%	8.02	1.8%	6.64	1.6%	9.56	1.7%
	volume 1,000 ton	0.39		10.40		11.91		7.83		10.20	
	price Million US\$	0.71		0.73		0.67		0.85		0.94	
Sugar and molasses	value Million US\$	1.20	0.5%	4.43	1.6%	0.36	0.1%		0.0%	1.50	0.3%
	volume 1,000 ton	13.12		15.20		0.01				2.63	
	price Million US\$	0.09		0.29						0.57	
Leather and leather products	value Million US\$	31.52	14.2%	35.06	12.5%	59.76	13.2%	49.02	12.0%	49.40	8.8%
	volume 1,000 ton	5.57				9.86		7.55		6.50	
	price Million US\$	5.66									
Live animals	value Million US\$	0.31	0.1%	1.83	0.7%	1.22	0.3%	0.12	0.0%	0.35	0.1%
	volume 1,000 ton	0.31						0.18			
	price Million US\$	1.00						0.67			
Meat, canned and frozen	value Million US\$	0.10	0.0%	0.12	0.0%	0.97	0.2%	1.93	0.5%	2.94	0.5%
	volume 1,000 ton	0.04		0.45		0.44		0.95		1.37	
	price Million US\$	2.46		0.27		2.21		2.03		2.14	
Fruits and vegetables	value Million US\$	0.64	0.3%	1.19	0.4%	2.91	0.6%	3.33	0.8%	4.23	0.8%
	volume 1,000 ton	6.05		17.20		19.44		19.00		21.15	
	price Million US\$	0.11		0.07		0.15		0.18		0.20	
Oilseeds cake	value Million US\$		0.0%		0.0%		0.0%		0.0%		0.0%
	volume 1,000 ton										
	price Million US\$										
Petroleum products	value Million US\$	7.14	3.2%	12.47	4.5%	15.21	3.4%	9.82	2.4%	16.43	2.9%
	volume 1,000 ton	108.78		207.05		163.36		114.51		182.56	
	price Million US\$	0.07		0.06		0.09		0.09		0.09	
Gold	value Million US\$	34.76	15.6%	31.85	11.4%	16.49	3.6%	10.89	2.7%	63.96	11.4%
	volume 1,000 ton	3.54		2.35		1.75		0.80		5.13	
	price Million US\$	9.82		13.55		9.42		13.61		12.46	
Other exports	value US\$Ounces	352.00		373.50		392.00		412.50		380.00	
	value Million US\$	19.73	8.9%	21.97	7.9%	44.28	9.8%	43.33	10.6%	50.18	8.9%
	Total exports, Lo.b.	222.41	100.0%	279.55	100.0%	453.57	100.0%	410.19	100.0%	561.26	100.0%

Source: Economic Research and Planning Department, National Bank of Ethiopia

Note: Figures in 1995/96 and 1996/97 are preliminary.

Table 3.3.16 Export and Import by Major Commodities (2/2)

Commodities	Import (Million US\$)											
	1992/93		1993/94		1994/95		1995/96		1996/97			
	Amount	Distribution	Amount	Distribution	Amount	Distribution	Amount	Distribution	Amount	Distribution	Amount	Distribution
Raw materials	20.6	2.0%	14.9	1.6%	20.9	2.0%	29.0	2.1%	31.2	2.2%		
Semi-finished goods	94.9	9.0%	129.3	14.1%	182.8	17.2%	253.2	17.9%	269.8	19.2%		
Chemicals	35.3	3.4%	33.1	3.6%	36.6	3.4%	51.0	3.6%	58.9	4.2%		
Fertilizers	3.8	0.4%	11.8	1.3%	44.3	4.2%	101.4	7.2%	109.0	7.8%		
Textile materials	11.0	1.0%	11.8	1.3%	17.4	1.6%	24.3	1.7%	26.0	1.9%		
Other	44.7	4.2%	72.7	7.9%	84.5	7.9%	70.6	5.0%	75.9	5.4%		
Fuel	198.0	18.8%	222.3	24.3%	168.9	15.9%	214.9	15.2%	251.8	16.5%		
Crude petroleum	100.5	9.6%	142.5	15.6%	88.8	8.4%	115.6	8.2%		0.0%		
Products	96.0	9.1%	79.8	8.7%	80.0	7.5%	99.9	7.1%	124.3	8.9%		
Other	1.5	0.1%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.1	0.0%		
Capital goods	382.0	36.3%	238.6	26.1%	333.7	31.4%	460.2	32.6%	515.0	36.7%		
Transport	251.9	23.9%	109.6	12.0%	140.2	13.2%	192.2	13.6%	234.1	16.7%		
w/o: Aircraft	102.0	9.7%	1.2	0.1%	1.5	0.1%		0.0%	61.3	4.4%		
Agricultural	2.7	0.3%	5.8	0.6%	20.4	1.9%	28.2	2.0%	32.3	2.3%		
Industrial	127.4	12.1%	123.2	13.5%	173.1	16.3%	239.8	17.0%	248.6	17.7%		
Consumer goods	334.7	31.8%	291.3	31.8%	340.0	32.0%	425.1	30.1%	322.5	23.0%		
Durables	81.6	7.8%	79.7	8.7%	90.9	8.6%	113.7	8.0%	118.6	8.5%		
w/o Motor vehicles	34.4	3.3%	33.2	3.6%	38.2	3.6%	47.8	3.4%	46.0	3.3%		
Non-durables	253.1	24.1%	211.6	23.1%	249.1	23.4%	311.4	22.0%	203.9	14.5%		
w/o Cereals	124.3	11.8%	89.4	9.8%	145.1	13.7%	170.7	12.1%	68.3	4.9%		
Other food	43.1	4.1%	37.0	4.0%	35.5	3.3%	44.3	3.1%	41.6	3.0%		
Medical	38.2	3.6%	37.3	4.1%	35.2	3.3%	41.4	2.9%	41.7	3.0%		
Textiles	21.3	2.0%	20.0	2.2%	20.2	1.9%	25.3	1.8%	25.8	1.8%		
Miscellaneous	21.7	2.1%	18.2	2.0%	16.7	1.6%	30.5	2.2%	32.8	2.3%		
Total import, c.i.f.	1,051.8	100.0%	914.6	100.0%	1,063.0	100.0%	1,412.9	100.0%	1,403.1	100.0%		

Source: Economic Research and Planning Department, National Bank of Ethiopia

Note: Figures in 1995/96 and 1996/97 are preliminary.

Table 3.3.17 Production, Export and Spot Price of Coffee

Year (Production Year)	Production		Export		Spot Coffee Price (Ethiopian Coffee)	
	Quantity (1000 ton)	Increasing ratio from previous year	Quantity (1000 ton)	Value (Mil. Birr)	Price (US cents/pound)	Changing ratio from previous year
1977 (1976/77)	66.3		50.2	548	258	
1978 (1977/78)	90.3	36%	67.2	497	169	-34%
1979 (1978/79)	98.1	9%	87.1	593	-	-
1980 (1979/80)	94.9	-3%	76.2	564	151	-
1981 (1980/81)	97.3	3%	85.7	470	117	-23%
1982 (1981/82)	94.3	-3%	83.9	514	134	14%
1983 (1982/83)	90.4	-4%	93.0	520	126	-6%
1984 (1983/84)	94.8	5%	87.2	546	142	15%
1985 (1984/85)	71.0	-25%	68.0	433	129	-9%
1986 (1985/86)	89.3	26%	75.0	734	182	41%
1987 (1986/87)	88.1	-1%	73.8	422	132	-28%
1988 (1987/88)	83.3	-6%	84.5	564	121	-8%
1989 (1988/89)	109.2	31%	102.4	608	114	-6%
1990 (1989/90)	90.6	-17%	64.5	272	80	-30%
1991 (1990/91)	77.2	-15%	51.3	241	78	-2%
1992 (1991/92)	60.0	-22%	44.9	265	59	-24%
1993 (1992/93)	87.7	46%	70.0	646	-	-
1994 (1993/94)	113.7	30%	-	-	-	-
1995 (1994/95)	102.3	-10%	-	-	-	-

Note: Spot coffee price is the price in New York Market.

- : Data is not available.

Source: Ethiopia Statistical Abstract 1978, 1982, 1984, 1986, 1988, 1990, 1992, 1995, CSA

Table 3.3.18 International Balance of Payment

(Unit : Million US\$)

Items	Fiscal Year				
	1992/93	1993/94	1994/95	1995/96	1996/97
A) Current Account	-204	-92	190	-203	-188
1) Trade Balance	-829.4	-635.1	-609.4	-1,002.7	-841.8
a) Export (F.O.B)	222.4	279.6	453.6	410.2	561.3
Coffee	125.8	158.3	287.8	272.9	348.6
Non-coffee	96.6	121.3	165.8	137.3	212.7
b) Import (C.I.F.)	1,051.8	914.6	1,063.0	1,412.9	1,403.1
2) Services (net)	-23.1	10.9	60.8	95.1	100.7
a) Interest	-96.4	-79.4	-60.4	-43.5	-40.3
Credit	6.5	7.3	23.9	40.3	27.9
Debit	102.9	86.7	84.3	83.8	68.2
Multilateral	21.5	21.4	27.1	37.0	35.6
Bilateral	67.5	53.4	46.9	38.5	23.4
Late/Moratorium interest	13.9	11.9	10.3	8.3	9.2
b) Other	73.3	90.3	121.2	138.6	141.0
Credit	284.7	276.1	330.1	372.6	412.3
Debit	211.4	185.8	209.0	234.1	271.3
3) Net Goods and Services	-852.5	-624.2	-548.6	-907.6	-741.1
4) Transfer	648.3	532.0	738.7	705.1	553.1
a) Private	247.9	246.9	311.2	313.4	273.9
b) Official	400.4	285.1	427.5	391.7	279.2
B) Long-term Capital Account	3.2	189.4	12.4	60.2	-169.5
1) Central Government	11.6	249.4	66.7	115.9	3.8
a) Disbursements	167.1	389.7	208.1	254.7	143.0
Multilateral	165.7	383.2	208.1	254.7	143.0
Bilateral	1.4	6.5	-	-	-
b) Amortization	155.5	140.3	141.4	138.8	139.2
Multilateral	17.1	18.1	23.6	35.8	41.0
Bilateral	138.4	122.2	117.8	103.0	98.2
2) Other Public Sector	-8.4	-60.0	-54.3	-55.7	-173.3
a) Disbursements	125.6	0.0	0.0	0.3	49.0
Multilateral	-	-	-	0.3	-
Bilateral	125.6	-	-	-	-
b) Amortization	134.0	60.0	54.3	56.0	222.3
Multilateral	8.0	7.1	3.9	5.0	3.9
Bilateral	126.0	52.9	50.4	51.0	218.4
C) Basic Balance	-201.0	97.2	202.5	-142.3	-357.5
D) Short-term + Private capital account	-131.1	46.9	-3.8	-71.5	45.2
E) Errors and Omissions	233.5	23.6	-49.7	173.3	-42.3
F) Overall Balance	-98.8	167.7	148.9	-40.4	-354.6
G) Financing	98.8	-167.7	-148.9	40.4	354.6
1) Central Bank	59.2	-222.9	-119.1	-296.5	388.7
a) Reserves	-76.6	-227.1	-120.1	-284.2	359.0
b) Liabilities	135.7	4.2	1.0	-12.3	29.7
2) Commercial Banks	-141.4	-111.0	-175.5	217.9	-147.2
3) Arrears	-74.6	110.6	99.8	103.3	113.2
4) Debt relief	255.6	55.6	45.9	15.7	0.0
a) Rescheduling	181.8	42.1	35.0	3.4	-
b) Cancellation	73.8	13.5	10.9	12.3	-

Source: Economic Research and Planning Department, National Bank of Ethiopia

Note: Figures in 1995/96 and 1996/97 are preliminary estimate.

Table 3.3.19 Price Index (Addis Ababa) (1/2)

Year	Retail Price Index (Addis Ababa)									
	General	Food	Household Items	Clothing	Transportation	Medical Care	Personal Care	Reading & Recreation	Other Goods & Services	
1984 Average	427.8	522.8	376.1	272.8	154.9	298.0	458.2	178.4	287.3	
1985 Average	509.4	654.7	406.8	268.2	156.4	283.8	475.1	194.5	296.7	
1986 Average	459.4	554.9	436.9	273.2	156.9	289.8	444.6	208.2	319.4	
1987 Average	448.3	521.3	479.4	271.5	162.7	299.2	470.7	219.8	316.9	
1988 Average	480.0	562.4	506.9	275.1	164.8	324.7	476.2	225.2	353.7	
1989 Average	517.6	599.0	586.0	278.4	170.6	355.3	484.8	252.6	368.1	
1990 Average	544.2	630.1	623.2	285.2	180.6	350.0	514.5	284.3	372.3	
1991 Average	758.7	890.6	847.5	324.5	181.5	360.6	588.9	335.7	391.4	
1992 Average	816.4	996.2	845.6	442.3	194.9	449.4	930.4	337.7	428.2	
1993 Average	845.3	1,010.4	829.5	541.7	252.9	731.3	1,329.0	351.2	467.2	
1994 Average	909.5	1,113.7	835.8	485.8	266.7	1,012.2	1,320.8	336.4	485.9	
1995 Average	1,000.6	1,251.2	887.7	501.3	277.2	976.2	1,374.9	400.4	500.3	
1996 Average	949.9	1,168.2	853.3	525.5	279.6	790.6	1,520.8	470.0	520.1	
Average annual increasing ratio										
1986 - 1996 (10 years)	7.5%	7.7%	6.9%	6.8%	5.9%	10.6%	13.1%	8.5%	5.0%	
1992 - 1996 (4 years)	3.9%	4.1%	0.2%	4.4%	9.4%	15.2%	13.1%	8.6%	5.0%	

Note : Price Index 1963 = 100

Sources : Ethiopian Statistical Abstract 1984, 1986, 1988, 1990, 1992, 1995, CSA

Report on the Development of Consumer Price Indices for Ethiopia, December 1996, CSA

Table 3.3.19 Price Index (Addis Ababa) (2/2)

Year	Consumer Price Index (Addis Ababa)											
	General	Food total	Beverages	Cigarettes and tobacco	Clothing and footwear	House rent, construction materials, water, fuel and power	Furniture, furnishings, household equip., and operation	Medical care and health	Transport and communication	Recreation, entertainment and education	Personal care and effects	Miscellaneous goods
1995/96	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sep. 1996	103.2	102.2	99.1	97.1	103.2	102.6	109.8	103.5	100.1	112.6	106.7	106.7
Oct.	103.2	99.6	103.1	96.5	111.9	102.4	107.5	111.7	100.7	119.9	105.8	112.1
Nov.	103.1	100.6	104.6	96.5	105.7	101.9	107.4	109.1	100.5	119.7	106.6	114.1
Dec.	102.5	99.8	105.4	96.5	107.4	102.6	109.6	109.0	100.9	118.4	104.6	98.2
Jan. 1997	101.5	97.5	103.7	96.5	106.5	101.7	107.9	125.8	100.6	118.7	105.4	99.1
Feb.	100.3	96.1	108.0	91.0	107.8	101.0	107.0	107.1	101.1	115.8	105.3	94.9
Mar.	99.4	92.7	107.6	92.9	107.8	102.7	107.7	110.6	100.9	116.0	103.2	113.2
Apr.	100.6	95.0	107.9	94.3	104.2	102.5	109.5	109.0	108.3	113.3	104.5	103.1
May	101.1	95.1	105.4	93.2	104.6	103.5	108.7	108.6	108.3	113.5	104.1	115.3
Jun.	104.1	101.7	104.9	92.9	104.1	103.7	108.7	109.2	108.2	114.7	105.1	107.5
Jul.	105.0	102.1	106.3	95.0	104.4	106.1	110.2	109.5	109.7	114.2	105.4	107.1
Aug.	107.0	108.4	107.9	91.6	103.7	105.6	110.1	110.8	109.8	114.5	103.4	106.1
Average annual increasing ratio (11 months)												
Sep. 1996 - Aug. 1997	4.0%	6.6%	9.7%	-6.2%	0.5%	3.2%	0.3%	7.7%	10.6%	1.8%	-3.4%	-0.6%

Note : Price Index 1995/96 = 100

Sources : Consumer Price Index of Addis Ababa for the month of August 1997. CSA

Table 3.3.20 FOREIGN CURRENCY EXCHANGE RATE
(Middle Rate, at the end of each month)

Month	1993		1994		1995		1996		1997	
	US\$	JPY	US\$	JPY	US\$	JPY	US\$	JPY	US\$	JPY
January	5.00	0.0401	5.82	0.0534	6.25	0.0632	6.33	0.0593	6.50	0.0535
February	5.00	0.0425	5.96	0.0567	6.25	0.0646	6.35	0.0609	6.73	0.0556
March	5.00	0.0428	6.06	0.0587	6.27	0.0711	6.35	0.0596	6.64	0.0537
April	5.00	0.0447	6.20	0.0607	6.28	0.0758	6.32	0.0601	6.60	0.0521
May	5.00	0.0463	6.29	0.0601	6.29	0.0601	6.33	0.0597	6.67	0.0574
June	5.10	0.0473	6.22	0.0626	6.32	0.0742	6.35	0.0581	6.80	0.0593
July	5.35	0.0505	6.15	0.0625	6.33	0.0714	6.33	0.0587	6.72	0.0568
August	5.90	0.0568	6.18	0.0619	6.28	0.0634	6.34	0.0584	6.81	0.0571
September	5.10	0.0484	6.25	0.0633	6.20	0.0640	6.39	0.0578	6.81	0.0561
October	5.18	0.0478	6.21	0.0640	6.30	0.0618	6.40	0.0560	6.83	0.0567
November	5.71	0.0523	6.30	0.0639	6.30	0.0622	6.38	0.0561	6.81	0.0533
December	5.86	0.0527	6.25	0.0627	6.32	0.0616	6.43	0.0557	6.86	0.0529
Average	5.27	0.0477	6.16	0.0609	6.28	0.0661	6.36	0.0584	6.73	0.0554

Note: US\$ means United States Dollar. JPY means Japanese Yen

Source : National Bank of Ethiopia

Table 3.3.21 Present Land Use in Addis Ababa

Land Use Categories	Area (ha)	Distribution
1. Existing Built-up Residential Area	8,054	15.7%
2. Residential Expansion	10,445	20.4%
3. Party, Government and Public Institutions	2,617	5.1%
4. Higher Education and Applied Research Center	247	0.5%
5. Commercial and Business Center	303	0.6%
6. Transport Related Activities	1,759	3.4%
7. Zonal Offices	324	0.6%
8. Industrial	2,269	4.4%
9. Embassies	238	0.5%
10. Green Area	14,850	29.0%
11. Wood Land	1,662	3.2%
12. Functional Green for Permitted Use	8,518	16.6%
Total	51,284	100.0%

Source: General Land Use Scheme of Proposed Core Area of the Addis Ababa City, National Urban Planning Institute