

THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AUTHORITY

RESULTS OF THE SURVEY OF
CONTRACT CONSTRUCTION ACTIVITIES

1987 E.F.Y. (1994/95 G.C.)

ADDIS ABABA
AUGUST, 1996

160

STATISTICAL BULLETIN

160

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1898

1899

1900

CONTENTS

	<u>PAGE NO.</u>
LIST OF TABLES -----	(I)
LIST OF FIGURES -----	(IV)
ABBREVIATIONS -----	(IV)
1. INTRODUCTION -----	1
2. OBJECTIVES OF THE SURVEY -----	3
3. SCOPE AND COVERAGE -----	4
4. TRAINING OF FIELD STAFF -----	6
5. METHODS OF DATA COLLECTION AND FIELD ORGANIZATION	6
6. SAMPLE DESIGN -----	7
7. EDITING, CODING, AND VERIFICATION -----	9
8. DATA ENTRY, CLEANING AND PROCESSING -----	9
9. BASIC CONCEPTS AND DEFINITIONS -----	10
10. REVIEW OF SELECTED SURVEY RESULTS -----	17
11. APPENDIX, SURVEY QUESTIONNAIRE -----	39

LIST OF TABLES

RESULTS OF THE SURVEY OF CONTRACT CONSTRUCTION ACTIVITIES

1987 E.F.Y. (1994/95 G.C.)

<u>TABLE NO.</u>	<u>PAGE NO.</u>
A. DISTRIBUTION OF CONSTRUCTION ENTERPRISES BY OWNERSHIP AND GROUP -----	8
C.1 PAID UP CAPITAL OF ENTERPRISES BY SOURCE OF OWNERSHIP AND MAIN CONSTRUCTION ACTIVITY -----	24
C.2 AVERAGE NUMBER OF PERSONS ENGAGED DURING A PEAK PERIOD BY MAIN CONSTRUCTION ACTIVITY -----	24

<u>TABLE NO.</u>	<u>PAGE NO.</u>
C.3	NUMBER OF PERSONS ENGAGED BY OCCUPATIONAL GROUP - 25
C.4	GROSS WAGES AND SALARIES, OTHER EMPLOYEE BENEFITS BY MAIN CONSTRUCTION ACTIVITY ----- 26
C.5	GROSS WAGES AND SALARIES BY OCCUPATIONAL GROUP --- 27
C.6	NUMBER OF ENTERPRISES & NUMBER OF PERSONS ENGAGED BY SIZE OF PERSONS ENGAGED AND BY MAIN CONSTRUCTION ACTIVITY ----- 28
C.7	NUMBER OF ENTERPRISES AND NUMBER OF PERSONS ENGAGED BY SIZE OF CAPITAL AND MAIN CONSTRUCTION ACTIVITY ----- 28
C.8	NUMBER OF ENTERPRISES, GROSS VALUE OF CONSTRUCTION OUTPUT, EXPENSES DIRECTLY RELATED TO CONSTRUCTION, INDIRECT TAXES NET AND CENSUS VALUE ADDED BY MAIN CONSTRUCTION ACTIVITY ----- 29
C.9	NUMBER OF ENTERPRISES, GROSS VALUE OF CONSTRUCTION OUTPUT, EXPENSES DIRECTLY RELATED TO CONSTRUCTION, INDIRECT TAXES NET AND VALUE ADDED IN THE NATIONAL ACCOUNT CONCEPT BY MAIN CONSTRUCTION ACTIVITY ----- 30
C.10	COMPONENTS OF GROSS VALUE OF CONSTRUCTION OUTPUT BY MAIN CONSTRUCTION ACTIVITY ----- 31
C.11	GROSS VALUE OF CONSTRUCTION OUTPUT BY SIZE OF PERSONS ENGAGED AND MAIN CONSTRUCTION ACTIVITY ----- 32

<u>TABLE NO.</u>	<u>PAGE NO.</u>
C.12 GROSS VALUE OF CONSTRUCTION OUTPUT BY SIZE OF CAPITAL AND MAIN CONSTRUCTION ACTIVITY -----	32
C.13 NUMBER OF ENTERPRISES, TOTAL REVENUE FROM NEW CONSTRUCTION INCLUDING EXTENSION, VALUE OF CAPITAL REPAIR AND MAINTENANCE BY TYPE OF MAIN CONSTRUCTION ACTIVITY -----	33
C.14 NUMBER OF ENTERPRISES, VALUE OF NEW CONSTRUCTION INCLUDING EXTENSION AND CAPITAL REPAIR AND MAINTENANCE BY TYPE OF CONSTRUCTION WORK DONE ----	33
C.15 NUMBER OF ENTERPRISES, PAYMENTS TO SUBCONTRACTORS, ENERGY CONSUMED AND CONSTRUCTION AND NON - CONSTRUCTION SERVICES RENDERED BY OTHERS -----	34
C.16 NUMBER OF ENTERPRISES AND COST OF ENERGY CONSUMED BY MAIN CONSTRUCTION ACTIVITY -----	35
C.17 FIXED ASSETS AND NEW CAPITAL EXPENDITURE BY MAIN CONSTRUCTION ACTIVITY AND OWNERSHIP -----	35
C.18 VALUE OF NEW CONSTRUCTION INCLUDING EXTENSION AND CAPITAL REPAIR AND MAINTENANCE BY TYPE OF CONSTRUCTION WORK DONE AND REGION -----	36
C.19 INDICATORS OF CONSTRUCTION ACTIVITY BY TYPE OF OWNERSHIP -----	37
C.20 ANALYTICAL RATIOS ON CONSTRUCTION ACTIVITIES -----	38

LIST OF FIGURES

<u>FIGURE NO.</u>		<u>PAGE NO.</u>
FIG. I	GROSS VALUE OF CONSTRUCTION OUTPUT AT CURRENT PRICE BY OWNERSHIP - 1987 E.F.Y. (1994/95 G.C.) -----	19
FIG. II	VALUE ADDED BY OWNERSHIP - 1987 E.F.Y. (1994/95 G.C.) --	20
FIG. III	PERCENTAGE DISTRIBUTION OF VALUE OF ADDED BY MAIN CONSTRUCTION ACTIVITIES - 1987 E.F.Y. (1994/95 G.C.) -----	21
FIG. IV	RATIO OF IMPORTED TO TOTAL RAW MATERIALS COST BY MAIN CONSTRUCTION ACTIVITIES -----	22
FIG. V	RATIO OF VALUE ADDED TO GROSS VALUE OF CONSTRUCTION OUTPUT BY MAIN CONSTRUCTION ACTIVITY - 1987 E.F.Y. (1994/95 G.C.) -----	23

ABBREVIATIONS

C.S.A.	-	CENTRAL STATISTICAL AUTHORITY
E.F.Y.	-	ETHIOPIAN FISCAL YEAR
G.C.	-	GREGORIAN CALENDAR
S.N.N.P.R.	-	SOUTHERN NATION, NATIONALITIES PEOPLE'S REGION

RESULTS OF THE SURVEY OF CONSTRUCTION

ENTERPRISES

1. Introduction

Construction activity may be defined generally as economic activity directed to the creation, renovation, repair or extension of fixed assets in the form of buildings, land improvements of engineering nature, and other such engineering constructions as roads, bridges, dams etc.. More specifically, construction activity is an activity engaged in constructing, altering, repairing and demolition of buildings, highways and streets, bridges, sewers, water, electricity mains, airport and parking areas, dams, drainage, irrigation, flood control and water power projects and hydroelectric plants, pipelines, water wells, communication systems such as telephone and telegraph lines and related activities. An activity primarily engaged in performing mining services such as preparing and constructing mining sites and drilling crude oil and natural gas wells are also classified in this group.

The assembly and installation of the site of prefabricated integral parts into bridges, water tanks, storage and warehouses facilities, lift, ventilating and air conditioning, lighting and electric wiring, etc. system of buildings and all kinds of structure is a construction activity.

It is also important further to distinguish construction activity, as it may be carried out by any enterprise regardless of its industrial classification, and the "construction industry proper". The latter classification restricts the scope to enterprises mainly performing contract construction.

This is the first annual compilation of statistics on construction enterprises, for the year 1987 E.F.Y. (1994/95 G.C.), which were obtained from the annual sample survey of "construction industry proper," conducted by the Central Statistical Authority (CSA). However, the compilation of the data did not strictly follow the International Standard Industrial Classification System - Revision-3 (ISIC-Revision-3), because of the fact that the only possible statistical and reporting unit for this survey was at the enterprise level. Thus, it was not possible for us to break down the data collected at an enterprise level, to a single 3-digit ISIC system (i.e., as Site preparation, Building of complete construction, Building installation, Building completion and Rent of construction or Demolition equipment with operator), as suggested by the "International Recommendations for Construction Statistics."

In other words, the major cause for this problem was that, the data gathered were not from those statistical and reporting units engaged in one kind of economic activity such as "kinds of activity units", the "establishment" or other sources as suggested by the international recommendations. The only source of information in our case was the enterprise, where fully articulated business register covering all construction industry proper were available. So the compilation of the collected data were organized in accordance with the main construction activity of the enterprises covered by the survey, i.e., as General Contractors, Building Contractors, Road Contractors and Special Trade Contractors (the definition for these terms are given in the concept and definitions of this publication).

Furthermore, the data collected in this survey gives priority to the economic data that can easily be supplied by the enterprises and which mainly contributes to the system of

national accounts. Thus, the compilation of the survey is based only on the value of inputs and outputs rather than physical classification and quantities.

This publication presents the objectives, scope and coverage, methods of data collection of the survey and structure and performance at the national level and value of construction works by type in each region for construction industries under the scope of the survey.

2. Objectives of the Survey

It can be estimated that construction activity generally contributes much to the country's total activity, at least with the corresponding demand for materials, labour inputs and backward and forward linkage effects in the economy. Construction activity is sensitive to movements in the general level of business activity, the movements in construction tending to both amplify and to lead the movements in the economy as a whole. The swings in the levels of construction activity correspond to, indeed are direct reflections of, shifts from consumption to savings (capital formation) and vice versa in the economy as a whole. It is for this reason, any available construction statistics and indicators tend to be closely watched by economic administrators and planners. Furthermore, statistics on the construction activity also contributes to the System of National Accounts (SNA) in the same way that statistics for other economic sectors do.

Thus, though, this publication deals, as explained in the scope and coverage with only one component of construction activity (construction industry proper), it is intended to meet at least partially the demands of economic administrators (policy makers), planners and researchers.

3. Scope and Coverage

Construction activity may be carried out not only by enterprises classified in the “construction industry proper” (or simply the construction industry), but also a significant amount of construction activities in countries like Ethiopia are carried out by enterprises not classified to this sector. Such activity, incidental to the main activity of the enterprise will usually be predominantly own account construction, either for the enterprise itself or for its parent organization. Finally, a significant amount of construction in Ethiopia is expected to be own-account construction by households.

Thus, in organizational terms construction activity may be seen as being comprised of five components.

(1) **Construction Industry Proper**:- construction units whose main activity is contract construction including unregistered units and self employed individuals carrying out construction for others.

(2) **Non-construction Units**:- carrying out construction but for which such contract construction is not the main activity.

(3) Construction units whose main activity is **Own Account Construction** for their parent non-construction enterprise. Some of the examples, that can be included here are:- Rural road construction, Irrigation works under the Ministry of Agriculture, Construction works under Ministries like Education, Mining, Health, Water Development and Corresponding bureaux in the regions and Construction of net work systems in organizations such as EELPA and Telecommunication, etc..

(4) Non-construction enterprises carrying out Some Own Account Construction incidental to the main activity - this component includes Government Ministries and Agencies engaged in public new construction work and capital repair and maintenance work for their small buildings, internal asphalt works and garages, etc.. without contractor.

(5) Own account construction by Individuals/Households/Co-operatives - individuals or co-operatives may construct and/or make capital repair and maintenance works without contractor by themselves.

As mentioned in the introduction of this report, since the current survey is based on registered enterprises, obviously, the scope for this survey is enterprises classified under construction industry proper, excluding unregistered units and self employed individuals carrying out construction for others.

As a result, the data collection of this sampled survey covers as a frame only those enterprises registered or licensed by the Ministry of Urban Development and Construction Works (i.e., those enterprises operating through out the country), excluding again enterprises licensed by the corresponding bureaux of the regions i.e., enterprises whose operation are confined to each region (if any). Construction enterprises no matter where their head office is located usually operate throughout the regions of the country; and so the survey covers all regions of the country.

4. Training of Field Staff

As mentioned above, the sample for the survey was designed among the total contract construction activities licensed by the Ministry of urban Development and Construction Works and accordingly enumerators and field editors (supervisors) were appointed from the existing CSA field staff and from the head office. Then, the training of all field staffs including branch statistical office heads and statisticians from the head office were carried out at the head office.

A thorough training were given for the appointed staff for seven days which consisted of class room discussions, filling in mock questionnaires for practice using financial statements of selected enterprises by the trainees. Also, the filled in questionnaires by the trainees were checked and corrections were made and omissions and incorrect responses were pointed out to the trainees, so that these should not be repeated in the actual field work.

5. Methods of Data Collection and Field Organization

Before starting the data collection activity for the sampled enterprises special attempt was made to include all enterprises under the scope of the survey for the frame (list of enterprises) by using the licenses issued by the Ministry of Urban Development and Construction Works. Then, a sample for the survey was designed among the total contract construction activities. All CSA statistical branch offices were at least partially involved in this survey. Accordingly, 30 statistical branch office heads and their assistance, overall about 40 enumerators (22 from Region 14 and 18 from the rest of the branches) were involved in the data collection activity.

Specially, in Region 14 where the head office of the majority of the enterprises under the scope of the sample survey are located, for the data collection activity the field staff was organized into teams. Each team consisted of four enumerators and a field editor (a supervisor). Then, the trained enumerators and field editors were deployed to all sampled enterprises to collect the data in collaboration with the concerned personnel of each enterprise. The data collection activity were completed within 30 working days in most of the regions of the country. Finally, it is important to note in regard to data collection problems, that most of the sampled construction enterprises go in and out of business, change their address quite frequently and operate in premises, particularly dwellings not readily identifiable as business offices of the construction enterprises. Therefore, it was very difficult for the enumerators to trace specially small enterprises in their address registered by the Ministry of urban Development and Construction Works.

6. Sample Design

1. Frame

The frame used for sample selection was obtained from the Ministry of Urban Development and Construction Works.

2. Sample Selection

A single - stage stratified sample design was used for the survey. For the purpose of the survey construction enterprises were stratified into four major groups. The groups are:

1. General Contractors (GC)
2. Building Contractors(BC)
3. Road Contractors(RC) and
4. Specialized Contractors (SC)

According to the original frame obtained from the Ministry of Urban Development and Construction Works the total number of enterprises in construction industries were 698. However, 58 of these enterprises were either not traced or found not active in the construction industry, and therefore, canceled from the main frame.

Construction enterprises are either publicly or privately owned and the distribution of construction enterprises by ownership and group is shown in Table A.

TABLE A - DISTRIBUTION OF CONSTRUCTION ENTERPRISES BY OWNERSHIP AND GROUP

GROUP	OWNERSHIP		
	PUBLIC	PRIVATE	TOTAL
General Contractors	5	81	86
Building Contractors	1	537	538
Road Contractors	-	12	12
Specialized Contractors	2	2	4
TOTAL	8	632	640

Taking into account their contribution to the national economy some of the construction enterprises were covered completely by the survey. The enterprises that were completely covered were:

- (i) All public owned construction enterprises regardless of their capital (8 enterprises).
- (ii) All private owned construction enterprises with capital of above Birr 20 million (6 enterprises) and
- (iii) All private specialized construction enterprises regardless of their capital. (2 enterprises).

From the remaining 624 construction enterprises 51 enterprises were covered on sampling basis, from each group in proportion to their capital. Thus, 29, 18, and 4 enterprises were sampled from Building, General and Road Construction activities, respectively. In each group the enterprises were further stratified based on their capital. The number of sample enterprises allocated to each group was reallocated to the sub-strata in each group in proportion to their number. In each sub-stratum enterprises were selected using simple random sampling without replacement technique.

7. Editing, Coding and Verification

A number of quality control steps were taken to ensure the quality of data of this survey. The first step taken in this direction was to prepare questionnaires both in Amharic and English, which were precise, conceptually clear and easy for internal consistency checking or editing both at field and office level. Furthermore, based on the final version of the questionnaire instruction manuals and editing procedures were prepared in both languages for enumerators, field and office editors.

After the majority of the completed questionnaires were brought back to head office a final editing, coding and verification were performed. The coding and the manual editing and verification activity was performed by six statisticians and statistical technicians. Finally, the edited and coded questionnaires were re-checked and verified by two other senior statisticians.

8. DATA ENTRY, CLEANING AND PROCESSING

The data was entered and verified in personal computers using I.M.P.S. (Integrated Microcomputer Processing System) Software. Five computer center data entry staff were utilized for this purpose for a period of one week with close supervision of the activities by two professionals. Then, the data entered was cleaned using one personal computer in combination with manual editing for some serious errors. Finally, the tabulation of the

results were processed using the same software by one programmer with technical assistance given by the staff of the Industry Statistics Department.

9. Basic Concepts and Definitions

- (i) **An Enterprise:-** is an institutional unit or smallest combination of institutional units that encloses and directly or indirectly controls all necessary functions to carry out its productive activities.
- (ii) **General Contractor:-** is an enterprise engaged in carrying out, or organize and partly carry out, or repair buildings and other civil engineering construction activities. By the latter term we mean to include construction activities such as roads, bridges, airfields, dams, pipelines and other similar activities.
- (iii) **Building Contractor:-** includes units whose main activity is to carry out, or organize and partly carry out or repair building projects.
- (iv) **Road Contract:-** is an enterprise engaged in constructing, maintaining and repairing roads, bridges and other similar activities.
- (v) **Special Trade Contractors:-** are engaged in only part of the work of the construction project; which includes plumbing, brick-laying, stone setting, carpentry, plastering, painting and decorating, air condition installation, tile setting, electric and water pipe installations, etc..
- (vi) **Paid-up Capital:-** is that part of the issued capital of an enterprise that has been paid by the shareholders.

- (vii) **Working Proprietors, Active Partners and Family Workers:-** include all unpaid working proprietors, active partners and members of their household who actively participate in the operation of the enterprise.
- (viii) **Operatives:-** are those employees who are directly engaged in building and construction work and related activities. (Example - carpenters, bricklayers, painters, electricians, plumbers, plasters, welders and concrete workers, etc..).
- (ix) **Other Employees:-** all employees other than operatives are included here, such as, salaried managers, directors, technicians, superintendents, research workers, draftsmen and designers, engineers, architects, accountants, bookkeepers, cashiers, typists, clerks guards, administrative supervisors and other office staff.
- (x) **Average Persons Engaged:-** includes all persons engaged in building and construction unit, including working proprietors and active business partners, unpaid family workers, active members of construction co-operatives and employees, whether on site or off site, excluding directors of incorporated enterprises who are paid only for their attendance at board of directors meeting. Included are also persons on leave with pay such as sick leave or paid vacation.
- (xi) **Total Number of Persons Engaged During a Single (Peak) Period:-** is defined as the total number of persons who work in or for each establishment under the enterprise, whether full-time or part-time, and includes working proprietors, unpaid family members as well as paid employees outside the physical location(s) of each establishment provided they are paid by and under the control of the enterprise. Here a single (peak period) refers to that of the last week of the pay period.
- (xii) **Gross Wages and Salaries:-** includes basic wages and salaries and overtime payments in cash or in kind made to employees during the reference year in connection with work done for the enterprises. It also includes wages and salaries

paid during vacations, holidays, sick leave, taxes, social insurance contribution and the like payable by the employees and deducted by the employer.

- (xiii) **Other Employee Benefits:-** includes bonus cost of living allowances (excluding car allowance and per diem) cost of goods and services furnished to the employee free of charge or at reduced cost (the cost refers here to the net cost to the employer).
- (xiv) **Supplements to Wages and Salaries of Employees:-** represents payments made by the employer on behalf of his employees. Included here are employer's contribution to pension, insurance premiums, etc.
- (xv) **New Construction:-** refer to site preparation for, and construction of, entirely new structures and/or significant extensions to existing structures whether or not the site was previously occupied.
- (xvi) **Revenue From New Construction:-** this includes all construction work done during the reference year, i.e., part or all of the works for both completed and on progress projects under the enterprises during the reference year. All the value of the construction work of the project will be taken as construction work during the reference year, if and only if, the project is a new contract and completed during the same year. Otherwise, in all other cases (such as works outstanding at the first day of the year and still on progress; works outstanding at the first day of the year and completed during the reference period and new contracts during the reference period and on progress) only that part of the value of the project performed during the reference year will be considered as construction output of this year.
- (xvii) **Receipts From Repair and Maintenance:-** include income from both capital and current repair and maintenance.

- (xviii) **Capital Repairs Including Restorations and Conversions:-** is the value including, in principle, all construction work performed for others and intended to extend the normal economic life or to increase the productivity of existing structures.
- (xix) **Current Repair and Maintenance:-** includes all construction work performed for others and not classified as capital repairs, restorations, or conversions, i.e., in order to prevent the normal deterioration of existing structures or to maintain them in a normal functional state.
- (xx) **Gross Value of Construction Output:-** comprises revenue from new construction output including extensions, receipts from capital and current repair and maintenance and other receipts and service income.
- (xxi) **Other Receipts and Service Income:-** includes income from renting construction or demolition equipment, goods sold in the same condition as received, professional services, interest, subsidies and other related receipts.
- (xxii) **Building:-** a building is an independent structure comprising one or more rooms or other spaces, covered by a roof, enclosed with external walls or dividing walls which extend from the foundation to the roof and intended for residential and non-residential purposes as explained below.
- (xxiii) **Residential Buildings:-** buildings are considered as residential when the major part of the building (i.e., more than half of its floor area) is intended for dwelling purposes.
- (xxiv) **Non-Residential Buildings:-** all buildings not classified as residential.

- (xxv) **Commercial Buildings:-** office buildings and all buildings which are intended for use primarily in whole sale, retail and service trading. (i.e., Hotels, Restaurants, Shops, Warehouses and Public Garages, etc..).
- (xxvi) **Industrial Buildings:-** all buildings which are used to house the production assembly and warehousing activities of industrial establishments, (i.e., factories, plants workshops, etc.).
- (xxvii) **Educational Buildings:-** all buildings which are intended for use directly in the instructional activities, furnishing academic and technical courses, (i.e., schools, universities, museums, art galleries, libraries, etc..).
- (xxviii) **Health Buildings:-** all buildings which are primarily engaged in providing hospital and institutional care (i.e., hospitals, infirmaries, clinics, etc..).
- (xxix) **Other Construction Works:-** comprising all construction works not predominantly the erection of buildings. The construction work in this part includes Roads, Bridges, Airfields, Dams, Pipelines and others.
- (xxx) **Value of Work Done as Sub-Contractor:-** includes the amounts, which the enterprise has been paid or expected to be paid by main contractors during the reference period.
- (xxxi) **Value of Work Done by Sub-Contractor:-** includes all progress and final payments made to sub-contractors and allowance for profit margins, received or receivable from the owner/investor of the project.
- (xxxii) **Cost of Raw Materials Consumed:-** included here are all raw materials, components, prefabricated elements etc.. that are physically incorporated in the construction work, such as cement, gravel, structural steel, windows, doors, etc..
The value of local raw material is the value of locally produced and used raw

materials, which includes purchase price, transport charges, taxes paid and other incidental costs. The value of imported raw material is the value of raw materials produced in other countries and obtained directly or from local source and is the cost that includes the purchase price, transport charges, taxes and other incidental costs.

- (xxxiii) **Payments to Sub-Contractors:-** includes advances, progress and final payments made to sub-contractors during the reporting period, for construction work on which the establishments under the enterprises are main contractors.
- (xxxiv) **Cost of Energy Consumed:-** is the value of fuel oil, diesel fuel oil, lubricating oil, coal, charcoal, wood, and other types of fuel and electricity consumed during the reference period.
- (xxxv) **Payments for Construction Related Services Rendered:-** included here are cost of repair and maintenance for the enterprise's machinery and equipment, cost of hiring buildings, machinery and equipment, cost of goods sold in the same condition as received and cost of other services rendered by others.
- (xxxvi) **Total Expenses Directly Related to Construction:-** includes the cost of raw materials and other components consumed, payments to sub-contractors, cost of energy consumed and payments for construction related services rendered.
- (xxxvii) **Transport Cost:-** includes all payments for hired transport as well as value of fuel, used for transport purposes by own vehicles.
- (xxxviii) **Payments for Non-Construction Services Rendered:-** includes payments like professional services, license fee, stationery, postal services, telephone, insurance premium and other non-construction costs.

- (xxxix) **Total Construction Related and Non-Construction Costs:-** is the sum of total expenses directly related to construction, transport cost and payments for non-construction services rendered.
- (xl) **Census Value Added (At Market Price):-** is the difference between gross value of construction output and total expenses directly related to construction. Census value added at market price minus indirect taxes net (i.e., indirect taxes less subsidies) gives census value added at factor cost.
- (xli) **Value Added in the National Account Concept (At Market Price):-** is defined as the difference between the gross value of construction output and total expenses directly related to construction and total non-construction expenses. To get the same indicator at factor cost indirect taxes net (i.e., indirect taxes less subsidies) are subtracted.
- (xlii) **Fixed Assets:-** are all acquisitions by the enterprise for its construction activities, whether obtained from others or produced by the enterprise of physical assets which are expected to have a productive life of more than a year, such as buildings, machinery, equipment and vehicles. They are valued in this report at book-value end of the reference year, that is the net book-value at the beginning plus new capital expenditure minus those sold and disposed and depreciation during the reference year.
- (xliii) **New Capital Expenditure:-** is the cost of new or used capital equipment bought and cost of capital repair and maintenance during the reference period.
- (xliv) **Public Sector:-** is an enterprise owned and controlled by the state, i.e., those which were fully as well as partially owned by the Government.
- (xlv) **Private Sector:-** includes enterprises such as individual ownership, partnership, private limited company, share company, co-operatives and others.

10. Review of Selected Survey Results

Paid up capital of enterprises and number of persons engaged by source of ownership and main construction activity are presented in Tables C-1 and C-2 respectively. These Tables makes clear that among main contract construction activities the building contractors took the highest share in number of enterprises, paid up capital and number of persons engaged in 1987 E.F.Y. (1994/95 G.C.). It is also evident from the same Tables that, the private contractors lead the activity both in paid up capital and number of persons engaged as compared to that of the public sector in the reference year.

As can be seen in Table C-6 and C-7 number of enterprises are higher for small size of persons engaged and lower for larger sizes. However, both number of enterprises and number of persons engaged are lower for lower size of paid up capital.

General contractors constitutes the biggest share both in gross value of construction output and value added as compared to other main contract construction activities, though, the building contractors as mentioned above took the highest proportion in terms of number of enterprises, number of persons engaged and paid up capital. This fact can be observed from Tables C-8 and C-9. Regarding the distribution of gross value of construction output and value added by ownership the private sector contributes more than 75 percent in both cases.

Gross value of construction output by size of persons engaged and capital is shown in Tables C-11 and C-12 respectively. The results shown in these Tables indicated that the contribution of enterprises increased as their size increase in terms of size of persons engaged and size of capital, though, the number of enterprises is too small in higher intervals.

Table 17 shades light on investment structure of contract construction activities. The big share of new capital expenditure (investment) in fixed assets in 1987 E.F.Y. (1994/95 G.C.) was made by general contractors and compared to other main contract construction activities. In respect to ownership distribution the higher proportion of investment in fixed assets was made by private contractors as compared to that of public contract construction activities.

Value of new construction including extension and capital repair and maintenance by type of construction work done and its areal distribution is treated in Table 18. Among the type of construction work done in all the regions of the country non-residential buildings took by far the highest share i.e., more than 50% as compared to residential and other types of construction works. Regarding the regional distribution of contract construction, Addis Ababa, Oromiya, Amhara, Tigray and S.N.N.P.R. are the leading five regions with 330.5, 181.5, 117.3, 110.7 and 95.7 Million Birr contract construction work done in each region respectively in 1987 E.F.Y. (1994/95 G.C.).

The ratio of imported raw material cost in contract construction activities is less than 10% of the total raw material cost except for general contract construction activities which showed 20% in 1987 E.F.Y. (1994/95 G.C.) as indicated in Tables C-15 and C-20. The same Tables presented that the ratio of energy consumed to total expenses of contract construction activities are less than 15 percent for all contract construction activities.

FIG.1-GROSS VALUE OF CONSTRUCTION AT CURRENT PRICE BY OWNERSHIP

1987 E.F.Y.(1994/95 G.C.)

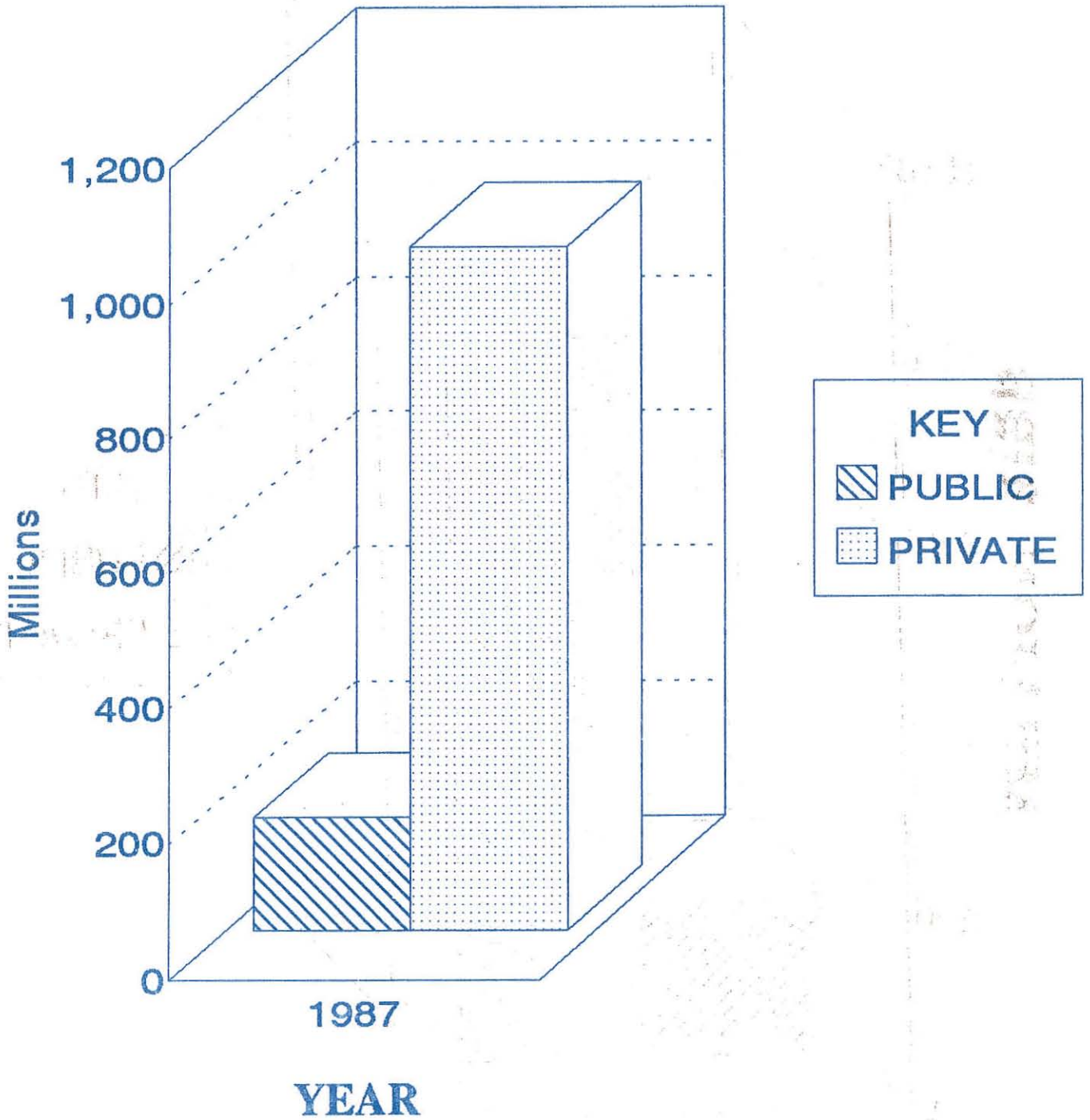
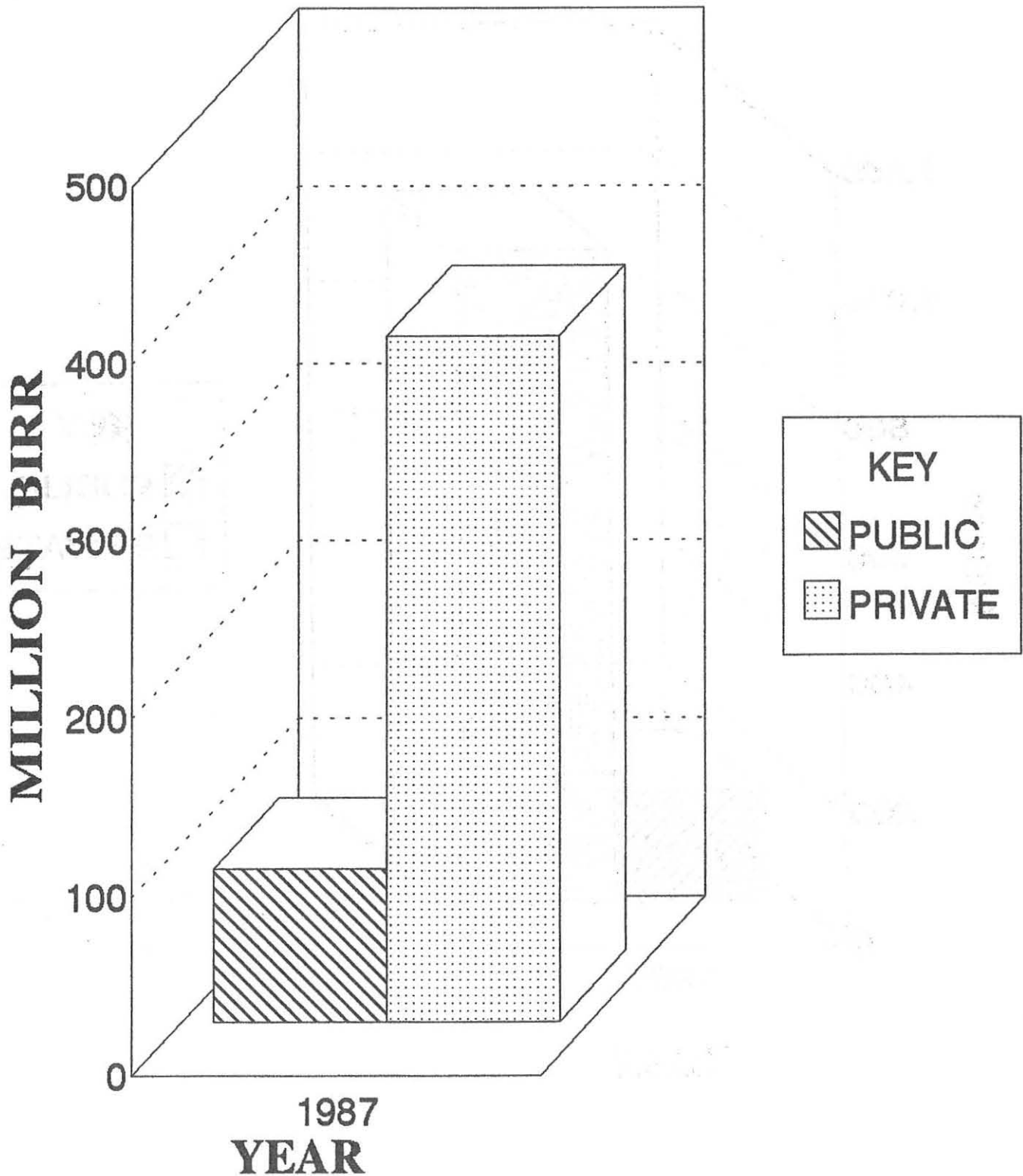
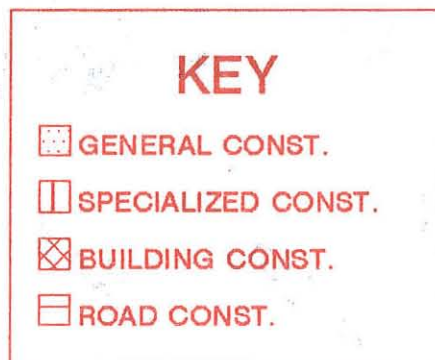
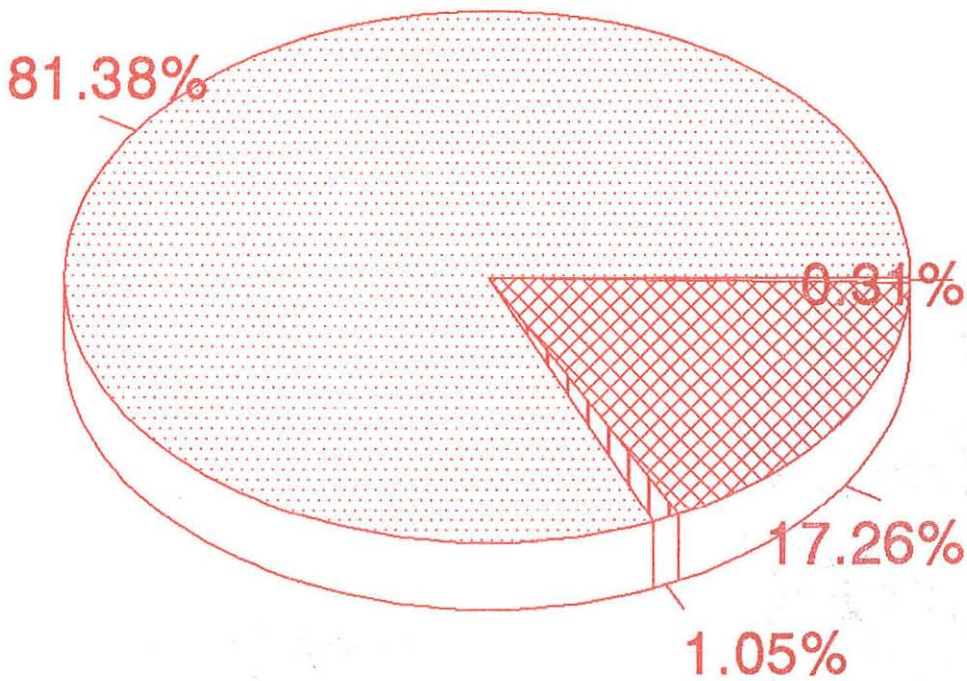


FIG. II-VALUE ADDED* BY OWNERSHIP
1987 E.F.Y. (1994/95 G.C.)



*IN NATIONAL ACCOUNT CONCEPT AT FACTOR COST

FIG. III- PERCENTAGE DISTRIBUTION OF VALUE ADDED*
BY MAIN CONSTRUCTION ACTIVITIES
1987 E.F.Y. (1994/95 G.C.)



* IN NATIONAL ACCOUNT CONCEPT AT FACTOR CONCEPT

FIG. IV - RATIO OF IMPORTED TO TOTAL RAW MATERIALS COST
BY MAIN CONSTRUCTION ACTIVITIES

1987 E.F.Y. (1994/95)

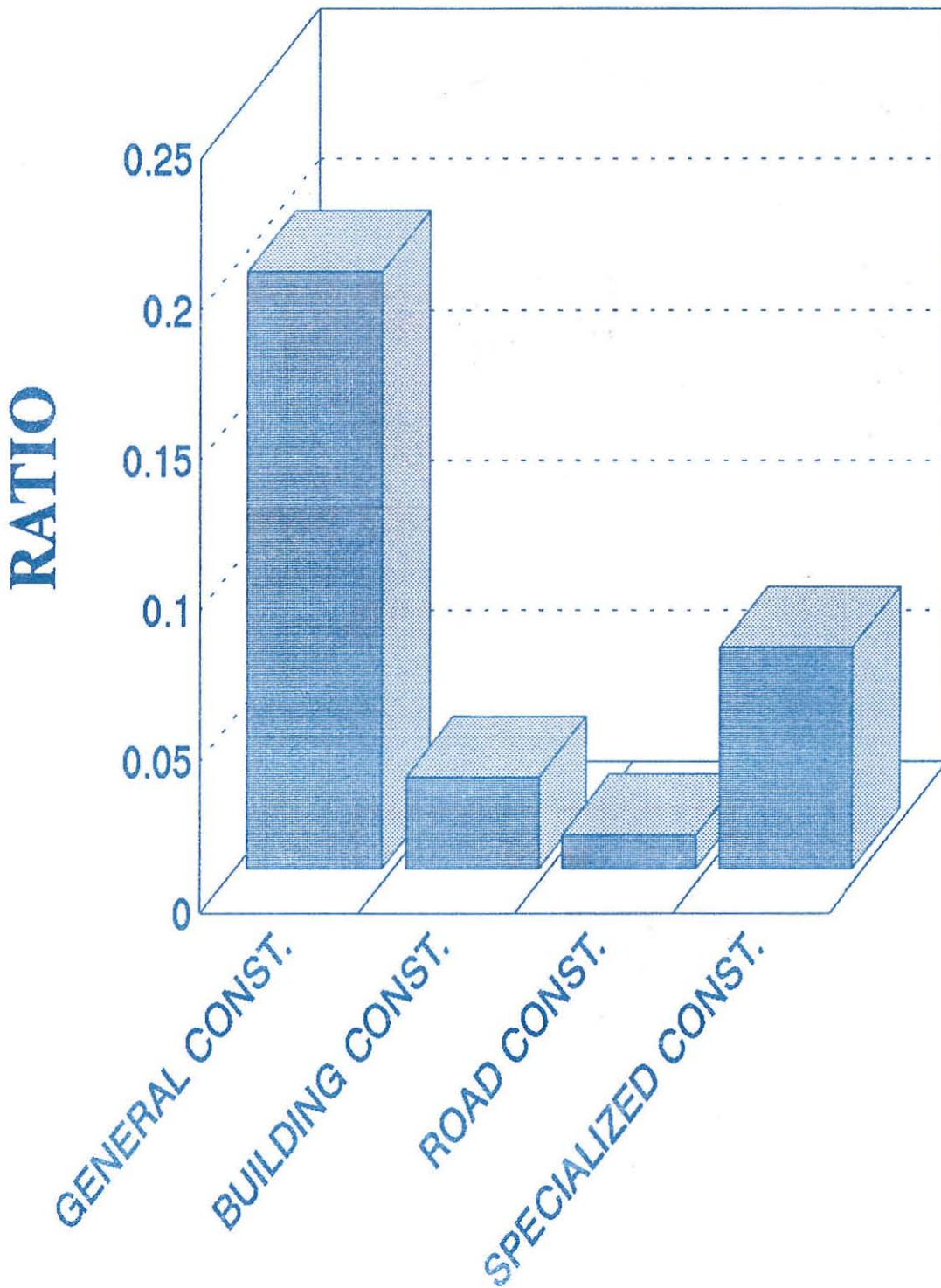
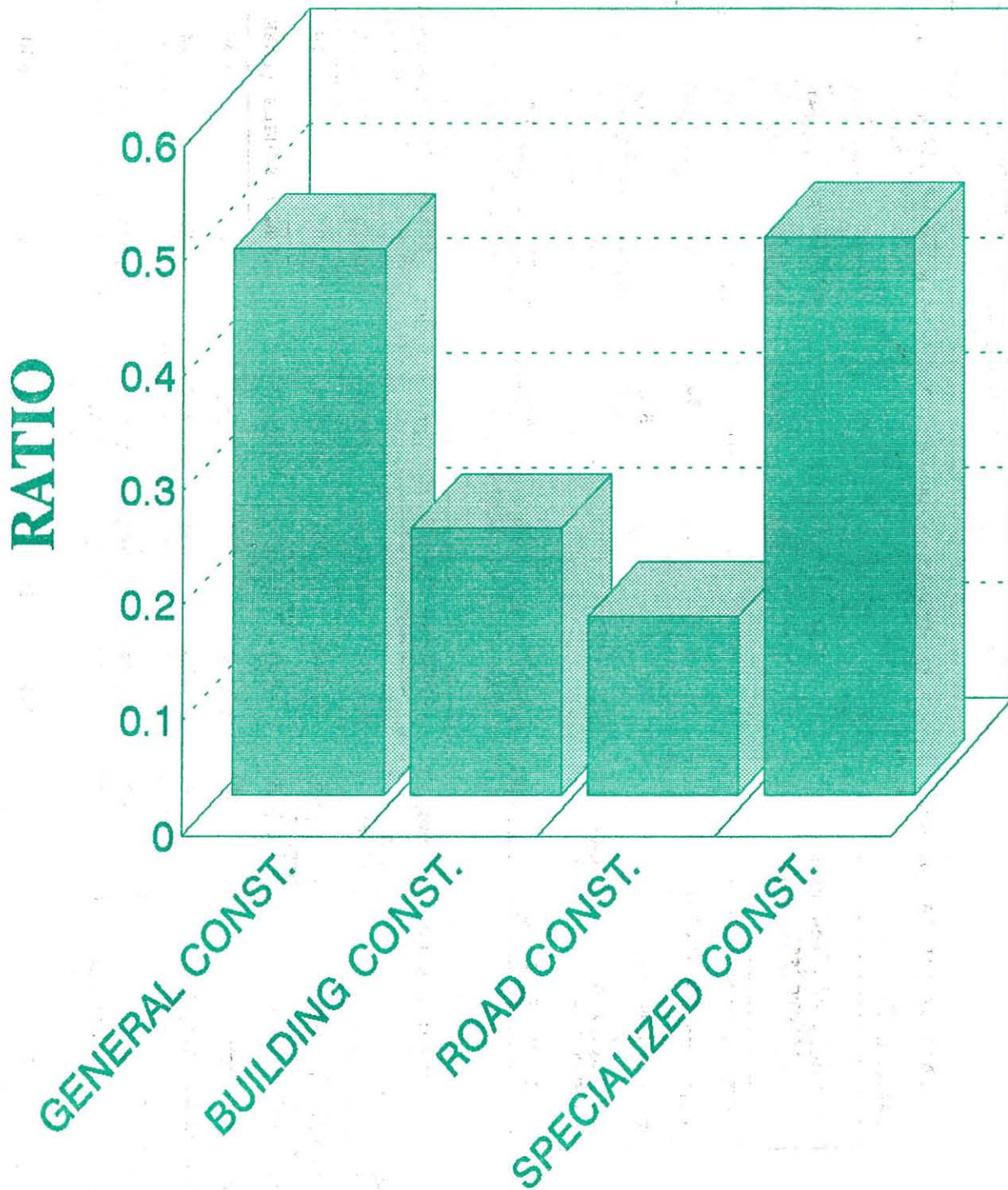


FIG. V - RATIO OF VALUE ADDED* TO GROSS VALUE OF CONSTRUCTION
OUTPUT BY MAIN CONSTRUCTION ACTIVITIES

1987 E.F.Y. (1994/95)



*IN NATIONAL ACCOUNT CONCEPT AT FACTOR COST

PAID UP CAPITAL OF ENTERPRISES BY SOURCE OF OWNERSHIP AND MAIN CONSTRUCTION ACTIVITY
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-1

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES			PAID UP CAPITAL (IN '000 BIRR)		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
GENERAL CONTRACTORS	5	81	86	100,000	555,025	655,025
BUILDING CONTRACTORS	1	537	538	20,000	879,249	899,249
ROAD CONTRACTORS	-	12	12	-	27,000	27,000
SPECIALIZED CONTRACTORS	2	2	4	40,000	350	40,350
T O T A L	8	632	640	160,000	1,461,624	1,621,624

AVERAGE NUMBER OF PERSONS ENGAGED AND NUMBER OF PERSONS ENGAGED DURING A PEAK PERIOD
BY MAIN CONSTRUCTION ACTIVITY - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-2

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES	AVERAGE NUMBER OF PERSONS ENGAGED			NUMBER OF PERSONS ENGAGED DURING A SINGLE (PEAK) PERIOD		
		PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
GENERAL CONTRACTORS	86	7,264	16,752	24,016	8,597	24,175	32,772
BUILDING CONTRACTORS	538	655	22,218	22,873	1,142	41,368	42,510
ROAD CONTRACTORS	12	-	776	776	-	1,084	1,084
SPECIALIZED CONTRACTORS	4	353	15	368	556	24	580
T O T A L	640	8,272	39,760	48,032	10,295	66,650	76,945

NUMBER OF PERSONS ENGAGED BY OCCUPATIONAL GROUP
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-3

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERP- RISES	NO. OF WORKING PROPRIETORS, ACTIVE PARTNERS & FAMILY WORKERS	OPERATIVES	OTHER EMPLOYEES	T O T A L
T O T A L	640	320	39,754	7,958	48,032
GENERAL CONTRACTORS	86	25	19,237	4,754	24,016
BUILDING CONTRACTORS	538	291	19,555	3,027	22,873
ROAD CONTRACTORS	12	4	741	31	776
SPECIALIZED CONTRACTORS	4	1	221	146	368
P U B L I C	8		5,908	2,364	8,272
GENERAL CONTRACTORS	5		5,261	2,003	7,264
BUILDING CONTRACTORS	1		438	217	655
ROAD CONTRACTORS	-		-	-	-
SPECIALIZED CONTRACTORS	2		209	144	353
P R I V A T E	632	320	33,846	5,594	39,760
GENERAL CONTRACTORS	81	25	13,976	2,751	16,752
BUILDING CONTRACTORS	537	291	19,117	2,810	22,218
ROAD CONTRACTORS	12	4	741	31	776
SPECIALIZED CONTRACTORS	2	1	12	2	15

GROSS WAGES AND SALARIES, OTHER EMPLOYEES BENEFITS, SUPPLEMENTS
TO WAGES AND SALARIES BY MAIN CONSTRUCTION ACTIVITY
PUBLIC AND PRIVATE - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-4

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERP- RISES	GROSS WAGES AND SALARIES	OTHER EMPLOYEES BENEFITS	T O T A L	SUPPLEMENTS TO WAGES AND SALARIES
T O T A L	640	170,496	4,984	175,480	3,017
GENERAL CONTRACTORS	86	101,209	4,545	105,754	2,739
BUILDING CONTRACTORS	538	66,319	396	66,715	139
ROAD CONTRACTORS	12	1,308	-	1,308	5
SPECIALIZED CONTRACTORS	4	1,660	43	1,703	134
P U B L I C	8	30,884	1,533	32,417	1,317
GENERAL CONTRACTORS	5	27,212	1,491	28,702	1,127
BUILDING CONTRACTORS	1	2,033	-	2,033	56
ROAD CONTRACTORS	-	-	-	-	-
SPECIALIZED CONTRACTORS	2	1,640	43	1,682	134
P R I V A T E	632	139,612	3,451	143,063	1,699
GENERAL CONTRACTORS	81	73,997	3,055	77,052	1,611
BUILDING CONTRACTORS	537	64,287	396	64,683	84
ROAD CONTRACTORS	12	1,308	-	1,308	5
SPECIALIZED CONTRACTORS	2	20	-	20	-

GROSS WAGES AND SALARIES BY OCCUPATIONAL GROUP
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-5

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERP- RISES	WAGES AND SALARIES PAID (IN '000 BIRR)		
		OPERATIVES	OTHER EMPLOYEES	T O T A L
T O T A L	640	139,446	31,050	170,496
GENERAL CONTRACTORS	86	82,156	19,052	101,209
BUILDING CONTRACTORS	538	55,129	11,190	66,319
ROAD CONTRACTORS	12	1,203	105	1,308
SPECIALIZED CONTRACTORS	4	958	703	1,660
P U B L I C	8	23,596	7,288	30,884
GENERAL CONTRACTORS	5	21,670	5,542	27,212
BUILDING CONTRACTORS	1	986	1,046	2,033
ROAD CONTRACTORS	-	-	-	-
SPECIALIZED CONTRACTORS	2	940	700	1,640
P R I V A T E	632	115,851	23,761	139,612
GENERAL CONTRACTORS	81	60,487	13,511	73,997
BUILDING CONTRACTORS	537	54,143	10,143	64,287
ROAD CONTRACTORS	12	1,203	105	1,308
SPECIALIZED CONTRACTORS	2	18	3	20

NUMBER OF ENTERPRISES & NUMBER OF PERSONS ENGAGED BY SIZE
OF PERSONS ENGAGED AND BY CONSTRUCTION ACTIVITY
PUBLIC & PRIVATE - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-6

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES BY SIZE OF PERSONS ENGAGED			NO. OF PERSONS ENGAGED BY SIZE GROUP			
	10 - 19	20 - 49	50 & OVER	10 - 19	20 - 49	50 & OVER	T O T A L
GENERAL CONTRACTORS	15	14	56	119	455	23,442	24,016
BUILDING CONTRACTORS	304	138	96	2,284	3,722	16,867	22,873
ROAD CONTRACTORS	4	3	6	-	75	701	776
SPECIALIZED CONTRACTORS	2	-	2	-	-	368	368
T O T A L	325	155	160	2,403	4,251	41,378	48,032

NUMBER OF ENTERPRISES & NUMBER OF PERSONS ENGAGED BY SIZE
OF CAPITAL AND BY MAIN CONSTRUCTION ACTIVITY
PUBLIC AND PRIVATE - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-7

(SIZE OF CAPITAL IN MILLION BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES BY SIZE OF CAPITAL					NO. OF PERSONS ENGAGED BY SIZE OF CAPITAL				
	UPTO 5	5 - 10	10 - 15	15 - 20	20 & OVER	UPTO 5	5 - 10	10 - 15	15 - 20	20 & OVER
GENERAL CONTRACTORS	52	15	8	-	11	3,952	2,468	4,984	-	12,612
BUILDING CONTRACTORS	517	15	5	-	1	16,290	4,418	1,510	-	655
ROAD CONTRACTORS	12	-	-	-	-	776	-	-	-	-
SPECIALIZED CONTRACTORS	2	-	-	-	2	15	-	-	-	353
T O T A L	583	30	13	-	14	21,033	6,885	6,494	-	13,620

NUMBER OF ENTERPRISES, GROSS VALUE OF CONSTRUCTION OUTPUT, EXPENSES DIRECTLY RELATED TO
CONSTRUCTION, INDIRECT TAXES NET AND CENSUS VALUE ADDED BY MAIN CONSTRUCTION ACTIVITY
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-8

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES	GROSS VALUE OF CONSTRUCTION OUTPUT	EXPENSES DIRECTLY RELATED TO CONSTRUCTION	INDIRECT TAXES	CENSUS VALUE ADDED	
					AT MARKET PRICE	AT FACTOR COST
T O T A L	640	1,177,805	527,655	5,086	650,150	645,064
GENERAL CONTRACTORS	86	806,078	302,432	4,268	503,646	499,378
BUILDING CONTRACTORS	538	352,002	214,606	629	137,396	136,767
ROAD CONTRACTORS	12	9,553	6,506	186	3,047	2,861
SPECIALIZED CONTRACTORS	4	10,172	4,111	3	6,061	6,058
P U B L I C	8	166,325	51,512	1,945	114,812	112,867
GENERAL CONTRACTORS	5	138,424	40,918	1,945	97,507	95,561
BUILDING CONTRACTORS	1	17,780	6,514	-	11,266	11,266
ROAD CONTRACTORS	-	-	-	-	-	-
SPECIALIZED CONTRACTORS	2	10,120	4,081	-	6,040	6,040
P R I V A T E	632	1,011,480	476,143	3,141	535,338	532,197
GENERAL CONTRACTORS	81	667,654	261,514	2,323	406,139	403,816
BUILDING CONTRACTORS	537	334,222	208,092	629	126,130	125,501
ROAD CONTRACTORS	12	9,553	6,506	186	3,047	2,861
SPECIALIZED CONTRACTORS	2	52	30	3	21	18

NUMBER OF ENTERPRISES, GROSS VALUE OF CONSTRUCTION OUTPUT, EXPENSES DIRECTLY RELATED TO CONSTRUCTION AND NON-CONSTRUCTION
INDIRECT TAXES NET AND VALUE ADDED IN NATIONAL ACCOUNTS CONCEPT BY MAIN CONSTRUCTION ACTIVITY
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-9

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES	GROSS VALUE OF CONSTRUCTION OUTPUT	EXPENSES DIRECTLY RELATED TO CONSTRUCTION AND NON-CONSTRUCTION EXPENSES	INDIRECT TAXES	VALUE ADDED AT NATIONAL ACCOUNTS CONCEPT	
					AT MARKET PRICE	AT FACTOR COST
TOTAL	640	1,177,805	701,802	5,086	476,003	470,917
GENERAL CONTRACTORS	86	806,078	418,567	4,268	387,511	383,243
BUILDING CONTRACTORS	538	352,002	270,100	629	81,902	81,272
ROAD CONTRACTORS	12	9,553	7,895	186	1,658	1,472
SPECIALIZED CONTRACTORS	4	10,172	5,239	3	4,933	4,930
PUBLIC	8	166,325	78,629	1,945	87,696	85,751
GENERAL CONTRACTORS	5	138,424	65,623	1,945	72,801	70,856
BUILDING CONTRACTORS	1	17,780	7,799	-	9,981	9,981
ROAD CONTRACTORS	-	-	-	-	-	-
SPECIALIZED CONTRACTORS	2	10,120	5,206	-	4,914	4,914
PRIVATE	632	1,011,480	623,173	3,141	388,307	385,166
GENERAL CONTRACTORS	81	667,654	352,943	2,323	314,710	312,387
BUILDING CONTRACTORS	537	334,222	262,301	629	71,921	71,292
ROAD CONTRACTORS	12	9,553	7,895	186	1,658	1,472
SPECIALIZED CONTRACTORS	2	52	33	3	19	16

COMPONENTS OF GROSS VALUE OF CONSTRUCTION OUTPUT BY
 MAIN CONSTRUCTION ACTIVITY - PUBLIC AND PRIVATE
 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-10

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES	REVENUE FROM NEW CONSTRUCTION OUTPUT	RECEIPTS FROM REPAIR & MAINTENANCE	OTHER RECEIPTS AND SERVICE INCOME	GROSS VALUE OF CONSTRUCTION OUTPUT
GENERAL CONTRACTORS	86	699,092	8,689	98,298	806,078
BUILDING CONTRACTORS	538	322,918	20,190	8,894	352,002
ROAD CONTRACTORS	12	4,699	3,566	1,287	9,553
SPECIALIZED CONTRACTORS	4	9,792	112	268	10,172
T O T A L	640	1,036,501	32,557	108,748	1,177,805

GROSS VALUE OF CONSTRUCTION OUTPUT BY SIZE OF PERSONS
ENGAGED AND MAIN CONSTRUCTION ACTIVITY - PUBLIC AND PRIVATE
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-11

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	S I Z E G R O U P			
	10 - 19	20 - 49	50 & OVER	T O T A L
GENERAL CONTRACTORS	1,226	6,760	798,092	806,078
BUILDING CONTRACTORS	30,224	41,759	280,019	352,002
ROAD CONTRACTORS	-	752	8,800	9,553
SPECIALIZED CONTRACTORS	-	-	10,172	10,172
T O T A L	31,450	49,271	1,097,084	1,177,805

GROSS VALUE OF CONSTRUCTION OUTPUT (IN '000 BIRR) BY SIZE OF CAPITAL
AND MAIN CONSTRUCTION ACTIVITY - PUBLIC AND PRIVATE
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-12

(OUTPUT IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	S I Z E O F C A P I T A L *					T O T A L
	UPTO 5	6 - 10	11 - 15	16 - 20	OVER 20	
GENERAL CONTRACTORS	45,077	146,495	169,403	-	445,103	806,078
BUILDING CONTRACTORS	223,082	70,787	40,353	-	17,780	352,002
ROAD CONTRACTORS	9,553	-	-	-	-	9,553
SPECIALIZED CONTRACTORS	52	-	-	-	10,120	10,172
T O T A L	277,764	217,282	209,757	-	473,003	1,177,805

* IN MILLION BIRR

NUMBER OF ENTERPRISES, TOTAL REVENUE FROM NEW CONSTRUCTION INCLUDING EXTENSION,
VALUE OF CAPITAL REPAIR AND MAINTENANCE BY TYPE OF MAIN CONSTRUCTION ACTIVITY
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-13

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES			REVENUE FROM NEW CONSTRUCTION AND CAPITAL REPAIR (IN '000 BIRR)		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
GENERAL CONTRACTORS	5	81	86	134,181	572,541	706,723
BUILDING CONTRACTORS	1	537	538	10,893	329,092	339,985
ROAD CONTRACTORS	-	12	12	-	8,265	8,265
SPECIALIZED CONTRACTORS	2	2	4	9,756	47	9,803
T O T A L	8	632	640	154,830	909,945	1,064,775

NUMBER OF ENTERPRISES, VALUE OF NEW CONSTRUCTION INCLUDING EXTENSION AND CAPITAL
REPAIR AND MAINTENANCE BY TYPE OF CONSTRUCTION WORK DONE - PUBLIC AND PRIVATE
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-14

(IN '000 BIRR)

TYPE OF CONSTRUCTION WORK DONE	TOTAL VALUE OF NEW CONSTRUCTION OUTPUT	TOTAL VALUE OF CAPITAL REPAIR AND MAINTENANCE	T O T A L
RESIDENTIAL BUILDINGS.	170,837	1,436	172,273
NON RESIDENTIAL BUILDINGS.	689,950	23,261	713,211
Commercial Buildings.	133,796	8,227	142,023
Industrial Buildings.	77,742	4,602	82,343
Educational Buildings.	120,709	304	121,013
Health Buildings.	126,747	3,940	130,688
Other Non Residential Buildings .	230,956	6,188	237,145
OTHER CONSTRUCTION WORKS	165,228	3,577	168,805
Roads	112,023	3,566	115,589
Bridges	3,359	-	3,359
Air Fields.	19,680	-	19,680
Dams.	18,597	-	18,597
Pipe Lines.	499	-	499
Others.	11,070	11	11,081
WORK DONE AS SUB CONTRACTOR. . . .	3,854	-	3,854
WORK DONE BY SUB CONTRACTOR. . . .	6,632	-	6,632
T O T A L	1,036,501	28,274	1,064,775

NUMBER OF ENTERPRISES, PAYMENTS TO SUBCONTRACTORS, ENERGY CONSUMED AND CONSTRUCTION AND NON-CONSTRUCTION SERVICES RENDERED BY OTHERS
PUBLIC & PRIVATE - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-15

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	NO. OF ENTERPRISES	COST OF RAW MATERIALS CONSUMED			PAYMENTS TO SUB-CONTRACTORS	COST OF ENERGY CONSUMED	PAYMENTS FOR CONSTRUCTION RELATED SERVICES RENDERED	TOTAL EXPENSES DIRECTLY RELATED TO CONSTRUCTION	TRANSPORT COST	PAYMENTS FOR NON CONSTRUCTION SERVICES RENDERED	TOTAL CONSTRUCTION RELATED AND NON-CONSTRUCTION COSTS
		LOCAL	IMPORTED	TOTAL							
GENERAL CONTRACTORS	86	213,768	52,749	266,517	7,942	31,171	35,915	302,432	19,422	47,379	369,233
BUILDING CONTRACTORS	538	195,220	6,111	201,331	6,689	8,187	13,275	214,606	16,051	24,568	255,225
ROAD CONTRACTORS	12	5,541	60	5,600	-	1,117	905	6,506	35	238	6,778
SPECIALIZED CONTRACTORS	4	2,591	203	2,794	-	601	1,318	4,111	101	426	4,639
T O T A L	640	417,120	59,122	476,242	14,631	41,075	51,413	527,655	35,609	72,611	635,875

NUMBER OF ENTERPRISES AND COST OF ENERGY CONSUMED BY MAIN CONSTRUCTION ACTIVITY
PUBLIC AND PRIVATE - 1987 E.F.Y. (1994/1995 G.C.)

TABLE C-16

MAIN CONSTRUCTION ACTIVITY	NUMBER OF ENTERPRISES BY TYPE OF ENERGY CONSUMED		TOTAL COST OF ENERGY CONSUMED (IN '000 BIRR)		
	COST OF FUEL & LUBRICATING OIL	ELECTRICITY	COST OF FUEL & LUBRICATING OIL	ELECTRICITY	T O T A L
GENERAL CONTRACTORS	75	74	29,980	1,190	31,171
BUILDING CONTRACTORS	294	235	7,864	322	8,187
ROAD CONTRACTORS	12	7	1,108	9	1,117
SPECIALIZED CONTRACTORS	2	3	582	18	601
T O T A L	383	318	39,535	1,540	41,075

FIXED ASSETS AND NEW CAPITAL EXPENDITURE BY MAIN CONSTRUCTION ACTIVITY AND OWNERSHIP
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-17

(IN '000 BIRR)

MAIN CONSTRUCTION ACTIVITY	FIXED ASSETS			NEW CAPITAL EXPENDITURE		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
GENERAL CONTRACTORS	158,002	230,775	388,777	16,877	126,209	143,086
BUILDING CONTRACTORS	6,820	70,475	77,294	21	22,198	22,219
ROAD CONTRACTORS	-	310	310	-	-	-
SPECIALIZED CONTRACTORS	47,158	11	47,169	48,971	3	48,974
T O T A L	211,980	301,570	513,550	65,869	148,411	214,280

VALUE OF NEW CONSTRUCTION INCLUDING EXTENSION AND CAPITAL REPAIR AND MAINTENANCE
BY TYPE OF CONSTRUCTION WORK DONE AND REGION - PUBLIC AND PRIVATE
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-18

('000 BIRR)

TYPE OF WORK DONE	R E G I O N											TOTAL WORK DONE
	TIGRAY	AFAR	AMHARA	OROMIYA	SOMALIE	BENISHA- NGUL/GUMUZ	S.N.N.P.R*	GAMBELA	HARARI	ADDIS ABABA	DIRE DAWA	
RESIDENTIAL BUILDINGS . . .	3,111	952	3,638	28,674	1,586	11,494	36,458	15,606	-	70,747	-	172,266
NON RESIDENTIAL BUILDINGS .	52,797	23,515	44,919	128,141	11,614	65,663	41,369	6,829	4,353	233,677	18,451	631,327
Commercial Buildings . . .	14,730	1,222	2,230	2,555	-	-	13,704	-	-	107,572	2,288	144,300
Industrial Buildings . . .	26,649	2,212	-	17,289	-	-	7,250	-	2,767	10,094	4,910	71,171
Educational Buildings . . .	11,699	1,803	8,320	53,406	9,758	-	901	-	-	29,252	-	115,138
Health Buildings	8,888	16,382	7,766	30,593	1,856	15,390	13,187	-	1,586	35,603	-	131,250
Other Non Residential Buildings	28,053	1,897	43,372	24,298	-	50,273	6,326	6,829	-	51,157	11,253	223,458
OTHER CONSTRUCTION WORKS. .	5,355	13,864	30,613	19,839	22,368	10,870	17,796	565	421	21,174	36	142,901
Roads	3,396	13,009	21,015	15,709	22,368	10,829	15,860	-	-	13,405	-	115,590
Bridges	-	-	-	-	-	-	-	-	-	3,360	-	3,360
Air Fields	4,859	-	14,820	-	-	-	-	-	-	-	-	19,679
Dams	-	-	15,481	3,116	-	-	-	-	-	-	-	18,597
Pipe Lines	-	-	-	-	-	-	-	-	-	499	-	499
Others	8,021	855	676	1,014	-	41	1,936	565	421	3,910	36	17,475
WORK DONE AS SUB CONTRACTOR	-	-	-	63	-	-	-	-	-	3,785	-	3,848
WORK DONE BY SUB CONTRACTOR	-	-	-	4,793	-	-	56	-	-	1,073	-	5,922
T O T A L	110,726	38,331	117,318	181,509	35,568	88,027	95,680	23,000	4,774	330,456	18,487	1,043,875**

* SOUTHERN NATIONS AND NATIONALITIES PEOPLES' REGION

** DUE TO ROUNDING DETAILS BY KILLIL IS NOT EQUAL TO THAT OF REVENUE FROM NEW CONSTRUCTION AND CAPITAL REPAIR AS GIVEN TABLE C-13

INDICATORS OF CONSTRUCTION ACTIVITY BY TYPE OF OWNERSHIP
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-19

MAIN CONSTRUCTION ACTIVITY	PERSONS ENGAGED				TOTAL NUMBER	VALUE ADDED*				'000 BIRR
	PUBLIC		PRIVATE			PUBLIC		PRIVATE		
	NUMBER	%	NUMBER	%		'000 BIRR	%	'000 BIRR	%	
GENERAL CONTRACTORS	7,264	87.81	16,752	42.13	24,016	70,856	82.63	312,387	81.10	383,243
BUILDING CONTRACTORS	655	7.92	22,218	55.88	22,873	9,981	11.64	71,292	18.51	81,272
ROAD CONTRACTORS	-	-	776	1.95	776	-	-	1,472	.38	1,472
SPECIALIZED CONTRACTORS	353	4.27	15	.04	368	4,914	5.73	16	.01	4,930
T O T A L	8,272	100.00	39,760	100.00	48,032	85,751	100.00	385,166	100.00	470,917

* IN THE NATIONAL ACCOUNT CONCEPT AT FACTOR COST

ANALYTICAL RATIOS ON CONSTRUCTION ACTIVITIES
1987 E.F.Y. (1994/1995 G.C.)

TABLE C-20

MAIN CONSTRUCTION ACTIVITY	GROSS CONSTRUCTION OUTPUT PER OPERATIVES	VALUE ADDED* PER OPERATIVES	RATIO OF IMPORTED TO TOTAL RAW MATERIALS**	PERCENTAGE DISTRIBUTION OF VALUE ADDED	RATIO OF ENERGY CONSUMED TO TOTAL EXPENSES DIRECTLY RELATED TO CONSTRUCTION	RATIO OF VALUE ADDED* TO GROSS VALUE OF CONSTRUCTION
GENERAL CONTRACTORS	41,903	19,922	.198	81.38	.089	.475
BUILDING CONTRACTORS	18,001	4,156	.030	17.26	.036	.231
ROAD CONTRACTORS	12,892	1,986	.011	.31	.147	.154
SPECIALIZED CONTRACTORS	46,028	22,307	.073	1.05	.127	.485
ALL CONTRACT CONSTRUCTIONS	29,628	11,846	.124	100.00	.069	.400

* IN THE NATIONAL ACCOUNT CONCEPT AT FACTOR COST

** ONLY FOR REPORTED ENTERPRISES

APPENDIX

SURVEY QUESTIONNAIRE

CONFIDENTIAL
FOR STATISTICAL USE ONLY

FOR OFFICE USE ONLY
FORM CI (YEAR) _____
ISIC _____
ENTERPRISE SERIAL NO. _____

NAME OF ENTERPRISE _____

**THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AUTHORITY**

**ANNUAL SURVEY OF CONSTRUCTION
ACTIVITIES**

(1987 E.F.Y.)

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 309

LECTURE 10

STATISTICAL MECHANICS

ENTROPY

MAXWELL-BOLZMANN DISTRIBUTION

HEAT CAPACITY

PROBLEMS

ITEM I - PARTICULARS OF ENTERPRISE

1. NAME AND ADDRESS OF ENTERPRISE

1.1 NAME _____

1.2 KILLIL _____ 1.3 ZONE _____

1.4 WEREDA _____ 1.5 TOWN _____

1.6 HIGHER KEBELE/ WEREDA _____

1.7 KEBELE _____

1.8 P.O.BOX _____

1.9 TELEPHONE NO. _____

2. NAME(S) & ADDRESS(ES) OF ESTABLISHMENTS INCLUDED UNDER THE ENTERPRISE.

	NAME		ADDRESS					ACTIVITY
			Killil	Zone	City	H K / Wer	Keb	
2.1	_____	_____	_____	_____	_____	_____	_____	_____
2.2	_____	_____	_____	_____	_____	_____	_____	_____
2.3	_____	_____	_____	_____	_____	_____	_____	_____

3. MAIN ECONOMIC ACTIVITY OF THE ENTERPRISE (Tick as applicable)

A. BUILDING CONTRACTOR = 1

B. GENERAL CONTRACTOR = 2

C. ROAD CONTRACTOR = 3

D. SPECIALIZED CONTRACTOR = 4

E. OTHERS (Please Specify) = 5

4. DO YOU KEEP BOOKS OF ACCOUNTS? YES =1 NO =2
If yes please attach your detailed books of accounts

5. STATE ACCORDING TO WHICH CALENDAR YEAR YOUR ACCOUNTS & BOOKS ARE BEING KEPT.

1. FISCAL YEAR ----- (Year ending July 7th)

2. ETHIOPIAN CALENDAR YEAR----- (Year ending Sept. 10th)

3. GREGORIAN CALENDAR YEAR----- (Year ending Dec. 10th)

4. ANY OTHER (Describe & Specify) _____

ITEM II - TYPE OF OWNERSHIP (Tick as Applicable)

A. INDIVIDUAL OWNERSHIP =1

B. PARTNERSHIP =2

C. PRIVATE LTD.CO. =3

D. PUBLIC OWNED =4

E. SHARE COMPANY =5

F. OTHER (Specify) =6

ITEM III - PAID UP CAPITAL BY SOURCE OF OWNERSHIP (IN BIRR)

A. PRIVATE ETHIOPIAN =1 _____

B. PRIVATE NON-ETHIOPIAN =2 _____

C. GOVERNMENT (Public) =3 _____

D. OTHER (Specify) =4 _____

E. TOTAL =5 _____

FOR OFFICE USE ONLY

ITEM I

YEAR

1	2	3	4

 ISIC

5	6	7	8

 ESTAB NO

9	10	11

12

12	13

 13

14	15

14

16	17

 15

18	19

16

20	21

 17

22	23

18

24	25	26	27	28	29

 19

30	31	32	33	34	35

RECORD TYPE

36	37
0	1

38

39

40

ITEM II

41

ITEM III

A

42	43	44	45	46	47	48	49	50	51

B

52	53	54	55	56	57	58	59	60	61

C

62	63	64	65	66	67	68	69	70	71

D

72	73	74	75	76	77	78	79	80	81

E

82	83	84	85	86	87	88	89	90	91

* If your accounts consists of more than three establishments use a separate sheet of paper to list all other establishments included.

FEDERAL BUREAU OF INVESTIGATION
 DEPARTMENT OF JUSTICE
 WASHINGTON, D. C. 20535

B. NUMBER OF PERSONS ENGAGED AT PEAK PERIOD IN 1987 E.F.Y.

REC. TYPE		SR NO	TOTAL NUMBER OF PERSONS ENGAGED DURING A SINGLE (PREFERABLY PEAK) PERIOD				
1	2	3	3				
36	37	38	39	40	41	42	43
0	2	1					

C. WAGES AND SALARIES AND OTHER BENEFITS PAID (IN BIRR) IN 1987 E.F.Y.

REC. TYPE	SR NO	GENERAL OCCUPATION	GROSS ANNUAL WAGES AND SALARIES PAID																											OTHER EMPLOYEES BENEFITS							EMPLOYERS' CONTRIBUTION TO PENSION & OTHER SOCIAL SECURITY SCHEMES												
			MALE													FEMALE													TOTAL																				
1	2	3	4													5													6							7							8						
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82			
0	3	1	Operatives																											X							X												
0	3	2	Other Employees																																														
0	3	3	TOTAL																																														

B. VALUE OF REPAIR AND MAINTENANCE (IN BIRR) DURING 1987 E.F.Y.

REC. TYPE	SR. NO.	TYPE OF MAINTENANCE AND REPAIR WORK DONE	CODE NO.	VALUE OF REPAIR & MAINTENANCE WORK DONE																TOTAL VALUE OF REPAIR & MAINTENANCE																
				BEGINNING OF THE YEAR								END OF THE YEAR								(END Y. - BEG. Y.) (6 - 5)																
1	2	3	4	5								6								7																
36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68				
0	5	0	1	I. CAPITAL REPAIR (Including restoration & Conversions)																																
0	5	0	2	1 RESIDENTIAL BUILDINGS																																
0	5	0	3	2 NON RESIDENTIAL BUILDINGS																																
0	5	0	4	2.1 Commercial Buildings																																
0	5	0	5	2.2 Industrial Buildings																																
0	5	0	6	2.3 Educational Buildings																																
0	5	0	7	2.4 Health Buildings																																
0	5	0	8	2.5 Others																																
0	5	0	9	3 OTHER CONSTRUCTION WORKS																																
0	5	1	0	3.1 Roads																																
0	5	1	1	3.2 Bridges																																
0	5	1	2	3.3 Air Fields																																
0	5	1	3	3.4 Dams																																
0	5	1	4	3.5 Pipe Lines																																
0	5	1	5	3.6 Others																																
0	5	1	6	4. WORK DONE AS SUB CONTRACTOR																																
0	5	1	7	5. WORK DONE BY SUB CONTRACTOR																																
0	5	1	8	II. CURRENT REPAIR & MAINTENANCE																																
0	5	1	9	1 Residential Buildings																																
0	5	2	0	2 Non Residential Buildings																																
0	5	2	1	3 Other Construction Works																																
0	5	2	2	4 Work Done as Subcontractor																																
0	5	2	3	5 Work Done by Subcontractor																																
0	5	2	4	TOTAL																																

NOTE: (1) VALUE OF CAPITAL REPAIR & CURRENT REPAIR FROM 2 - 15 & 19 - 21 ARE WORK DONE BY OWN LABOR FORCE.
 (2) ALL REPAIR & MAINTENANCE FROM 1 - 23 INCLUDES (IF ANY) REPAIR & MAINTENANCE WORK DONE FOR OWN USE.

C (Contd.) - VALUE OF CONSTRUCTION WORK DONE IN EACH KILLIL (IN '000 BIRR) IN 1987 E.F.Y.

REC. TYPE	SR. NO.	KILLILS TYPE OF CONSTRUCTION WORK DONE	CODE NO.	7 SOUTHERN ETHIOPIA											12 GAMBELA					13 HARARI					14 ADDIS ABABA					15 DIRE DAWA							TOTAL OF WORK DONE BY TYPE													
				11											12					13					13					14							15													
1	2	3	4	40	41	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114								
0	6	0	1	1. RESIDENTIAL BUILDINGS																																														
0	6	0	2	2. NON RESIDENTIAL BUILDINGS																																														
0	6	0	3	2.1 Commercial Buildings																																														
0	6	0	4	2.2 Industrial Buildings																																														
0	6	0	5	2.3 Educational Buildings																																														
0	6	0	6	2.4 Health Buildings																																														
0	6	0	7	2.5 Others																																														
0	6	0	8	3. OTHER CONSTRUCTION WORKS																																														
0	6	0	9	3.1 Roads																																														
0	6	1	0	3.2 Bridges																																														
0	6	1	1	3.3 Air Fields																																														
0	6	1	2	3.4 Dams																																														
0	6	1	3	3.5 Pipe Lines																																														
0	6	1	4	3.6 Others																																														
0	6	1	5	4 WORK DONE AS SUB CONTRACTOR																																														
0	6	1	6	5 WORK DONE BY SUB CONTRACTOR																																														
0	6	1	7	TOTAL																																														

NOTE: (1) CONSTRUCTION OUTPUT FROM 1 - 14 ARE WORK DONE BY OWN LABOR FORCE.

(2) ALL CONSTRUCTION OUTPUT FROM 1 - 16 INCLUDES (IF ANY) CONSTRUCTION WORK DONE FOR OWN USE & CAPITAL REPAIR AND MAINTENANCE

(3) FOR ROAD CONSTRUCTION THAT CROSS KILLILS PROVIDÉ ESTIMATED DATA FOR EACH KILLIL

1987 E.F.Y. VALUE OF CONSTRUCTION WORK DONE IN EACH KILLIL (IN '000 BIRR)

ITEM VII - VALUE OF STOCKS (IN BIRR) IN 1987 E.F.Y.

REC. TYPE		SR. NO.	STOCKS OF	BEGINNING OF THE YEAR										END OF THE YEAR										DIFFERENCE (END Y. - BEG. Y.)					
1		2	3	4										5										6 = (5 - 4)					
36	37	38		39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
1	2	1	RAW MATERIALS, SUPPLIES AND COMPONENTS																										

ITEM VIII. INCOME LESS EXPENDITURE (IN BIRR) IN 1987 E.F.Y.

REC. TYPE		SR. NO.	PROFIT (NET SURPLUS) (LOSS) BEFORE PROFIT (INCOME) TAX									
1		2	3									
36	37	38	39	40	41	42	43	44	45	46		
1	3	1										

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