

**The Annual Establishment &  
Institution Survey (AEIS)  
2002-2003**

# CHAPTER-1

## 1. INTRODUCTION

### 1.1 Background

The Annual Establishment & Institution Survey (AEIS) has been developed as part of an integrated programme of the Bangladesh Bureau of Statistics (BBS) in order to provide timely information for various economic sectors needed for national accounting and other policy, management purposes. The Industry and Labour Wing has been formed in order to conduct economic surveys on the sectors that are not related to agricultural activities. Those sectors are : (i) Small Manufacturing (ii) Wholesale & Retail Trade (iii) Hotel & Restaurant (iv) Service and (v) Household based economic activities. These sectors have been divided into two groups, namely, small establishments and large establishments. In the manufacturing sector the small establishments are those that employ 1-9 people, and those that employ 10 or more people have been classed as large establishments. In the wholesale & retail trade, hotel & restaurant and service sectors the establishments that employ 1-19 people are called small establishments and those employing 20 or more people are large establishments. The household sector has been placed only in the small group irrespective of the number of persons engaged. It has to be specifically mentioned that the large manufacturing sector has been separated from the above mentioned sectors and placed in a separate survey called the Census of Manufacturing Industries (CMI) for which it is outside the scope of the AEIS. The small manufacturing sector and all other sectors, both small and large along with the Household sector, are covered by the AEIS. In order to capture the seasonal activities of the sectors, the surveys are based on monthly national sub-sample of EAs, and collect data through out the twelve months of the year using separate questionnaire for each sector.

### 1.2 Objective of the Survey

The main objective of the AEIS is to provide annual estimates for the key variables in each sector. The variables are:

- 1) value of products sold or manufactured and services rendered (gross output)
- 2) value of raw materials and other inputs (industrial cost)
- 3) operating cost
- 4) input cost
- 5) employment by sex and category
- 6) employment cost
- 7) value of inventories (change in stock)
- 8) fixed assets
- 9) fixed assets information (capital expenditure)
- 10) gross value added
- 11) value added at factor cost

The information obtained for each non-agricultural economic sector is defined by an industry group following the Bangladesh Standard Industrial Classification (BSIC).

## **1.3 Scope and Coverage of the Survey**

### **A. Scope and Limitations**

Small manufacturing industries, wholesale and retail trades, hotels & restaurants and some selected service industries, as well as, household based economic activities are within the scope of the survey. The following groups and sub-groups of BSIC are excluded from the scope of survey.

- A- Agriculture, Hunting and Forestry
- B- Fishing
- C- Mining and Quarrying
- E- Electricity, Gas and Water Supply
- F- Construction
- I- Transport, Storage and Communication
- J- Financial Intermediation
- L- Public Administration and Defense, Compulsory Social Security
- Q- Extra Territorial Organization and Bodies

### **B. Coverage**

The Annual Establishment & Institution Survey (AEIS) sample design is based on two independent frames, a list frame and an area frame. The list frame covers the large establishment of the wholesale & retail trade sector, hotel & restaurant sector and the service sector. As has been explained in the background at the beginning that the large manufacturing sector has been separately placed in the Census of Manufacturing Industries, and the household sector has also not been included in this frame. The area frame covers all the small establishments that have been excluded from the list frame.

A total of 1500 EA's were selected from the area frame consisting of 1,96,720 EA's to cover small manufacturing establishments with 1-9 persons engaged, other sector establishments with 1-19 persons engaged and various household economic activities.

For household economic activities, there were no cut-off size relating to person engaged. Therefore, all households with relevant economic activities were included in the area frame.

## **1.4 Reference Period and Period of Operation**

For each sector, two separate questionnaires were used one with a month reference period for the smaller establishments/households selected from the frame and with a year reference period for the larger establishments selected from the list frame. For the Annual Establishment & Institution Survey from January 2003 to June 2003 only the smaller establishments from the area frame were covered, using the previous month as reference period. However, the survey was based on monthly national sub-samples covering a year and the data were representative in time, as well as, in space, i.e, seasonalities have been taken into account. The questionnaires for the larger establishments from the list frame had a year reference period from July 2002 to June 2003. The data collection for this part of the frame, therefore, began only in July 2003 and ended in December 2003.

## CHAPTER - II

### CONCEPTS AND DEFINITIONS

This section contains some important concepts and definitions used in the AEIS which were also used in the Annual Economic Survey 1989-1990. These are as follows :

#### 1. Enumeration Area

The list of enumeration areas used in the economic census of 1986 were used as the frame. The concept of census enumeration area was a fixed area demarcated on mauza/mahalla maps containing 40 to 100 units in each area assigned for an enumerator. In most cases a mauza/mahalla was split into several enumeration areas but in some cases, the whole mauza/mahalla was an enumeration area.

#### 2. Economic Activity

All non-agricultural activities relating to procurement, production, sale and distribution of all kinds of materials, goods and services were considered as economic activities.

#### 3. Unit

A unit is a household, establishment, institution or any other single physical location at which any economic or social activity relating to procurement, production, sale, distribution etc. of all kinds of materials, goods and services can take place.

#### 4. Permanent Establishment

A unit which is in use for the purpose of collection, production, buying & selling and distribution of goods, or any kind of social work, business or services, whether they are owned & controlled by the government, person, group of persons or society. For example, any factory, shop, hotel, restaurant, mosque or temple, etc. with permanent structure (s) and fixed physical location is considered as a permanent establishment.

#### 5. Manufacturing

Manufacturing is defined as the mechanical or chemical transformation of organic or inorganic substances into new products, whether the work is performed by power driven machines or by hand, whether it is done in a factory or in the worker's home, and whether the products are sold at wholesale or retail.

#### 6. Wholesale & Retail Trade

Activity primarily relating to the sale of goods and commodities, whether on wholesale or retail and repair services of (motor vehicles, motor cycles, cycles, rickshaw and personal household goods). The distinction between wholesale and retail trade is generally made on the basis of the customer, i.e. sales to the businesses or organizations are generally classified as wholesale, while sale to the general public for personal or household consumption is generally classified as retail trade. In some cases, it is difficult, to differentiate between wholesale and retail trade. In these cases, the distinction is made on the basis of the size of transaction and the seller's self perceived indications of whether he is selling wholesale (paikari) or retail (khuchra). The wholesale transaction usually made with an intention to sale subsequently to small customers.

#### 7. Hotel & Restaurants

Establishment primarily relating to the sale of prepared food and drinks for immediate consumption and providing temporary lodging.

## **8. Community, Social and Personal Services**

Activities primarily relating to rendering of services, such as, education & health services, social & related community services, recreation services, personal and household services.

## **9. Household Economic Activities**

Non-agricultural economic activities which are carried out in the households or within the premises of household, such as, cottage industries, repair & services, trade, transportation, construction, etc.

## **10. Legal Status**

It is the way an establishment's economic activities are conducted on a legal basis, for example, whether an establishment is recognised and registered in the country's law as one person ownership, or partnership, or co-operative society, or autonomous corporation, or private limited company, or public limited company. Some of the legal status are discussed below:

### **Individually Owned**

Economic establishment owned and run by a person or family who bear the profits or losses of the establishment.

### **Partnership**

A partnership establishment is an economic establishment created by an agreement. Its members will be more than two and less than twenty in numbers but in banking business they will not be more than ten.

### **Private Limited Company**

A company which has no right to transfer the shares of its members to others according to the "Articles of Association". The number of members must be at least two but not more than fifty, and the employees are not regarded as members. The public may not be asked to buy the company's shares & debentures.

### **Public Limited Company**

A company incorporated under the Companies Act 1913 or recognized thereby as an existing company, which is not a private company. A public company can have any number of members, excluding of course, its employees & can invite public subscription for its shares & debentures. Public company may be a company limited by shares or a company limited by guarantee or an unlimited company.

### **Autonomous Corporation**

Establishments in the public sector established under law and controlled by their own budget are called Autonomous Corporations, such as, Universities, Municipalities, Banks etc. All of their authorities and powers are contained in the law by which they are created.

### **Cooperative Society**

It is not operated for the purpose of earning profit but rather for the purpose of providing services to the members. In cooperative society the capital needed is supplied by the members and by borrowing and savings are distributed to members on the basis of patronage.

## **11. Working Proprietor/Partner**

Proprietors / Partners who are actively engaged in managing or operating the activity of the unit. No one was treated as working proprietor / partner for a public limited company, autonomous body, cooperative society or publicly owned units.

## **12. Administrative, Executive, Clerical and Sales Employees**

Include all classes of permanent and salaried employees and officers engaged in economic activities of the establishment, such as managers, accountants, clerks, typists and sales employees.

## **13. Production, Sales and Service Workers**

Mean those workers who are directly engaged in manufacturing selling or servicing in exchange for salaries. Working supervisors and persons engaged for repairing and maintenance are also included.

## **14. Temporary Workers**

Mean those engaged in business, manufacturing or related activities on a temporary basis or in exchange for daily wages , but do not get salary and other benefits like the permanent workers.

## **15. Unpaid Family Workers**

Mean the family members of the proprietors /partners directly engaged in economic activities at least 15 hours in a week of the normal working time of the establishment, but not paid regular wages or salaries.

## **16. Persons Engaged**

Mean the total number of persons who work in or for the establishment, including working proprietors, partners and unpaid family workers. Persons working on commission basis are excluded. The total persons on short term leave, either because of illness or vacation, are also included.

## **17. All Employees**

Comprise both salaried employees and production workers. Salaried employees include professional & technical workers, administrative & managerial workers, clerical workers, sales & services workers.

## **18. Wages and Salaries**

Include all cash payments (monthly salary + house rent + medical allowance + other allowances) made during the year in case as compensation for work done but does not include other cash and non-cash benefits.

## **19. Other Cash Benefits**

Include other monetary benefits such as education cost, hospital cost, bonus, etc. given to the employees in addition to wages and salaries.

## **20. Other non-cash benefits**

Include the material goods and other benefits given to the employees, in addition to their salaries and wages, and cash benefits such as food and food articles, clothing, housing accommodation, transport, etc. which is free of cost or at a price lower than the market value. This excludes employer's contribution to provident fund, person's gratuity or other social security measures.

## **21. Number of Working Days**

Comprise the number of days in which any manufacturing or business process is carried on, and includes days spent exclusively for repair and maintenance of fixed assets. Total man days

worked equals (=) total working days in a year times (x) average number of working persons per day.

## **22. Manufactured Goods**

Mean those goods that were produced during the reference period at the final stage of production and were ready for sale.

## **23. By-products**

Mean the goods of some value produced by the factory during the production of the actual manufactured goods, such as molasses that were made during the production of sugar in a sugar mill.

## **24. Stock**

Refers to inventories of imports such as raw materials, fuel, spare parts, packing materials, lubricants, etc. & finished and semi-finished goods.

## **25. Work-in-progress**

Value of all materials which have been partially processed and are not usually sold without further processing.

## **26. Depreciation**

Means an accounting item to set aside an allowance to cover the cost of wear and tear of the fixed assets used in manufacturing process during the year.

## **27. Indirect Tax**

Include all taxes incidental to the production or sale of goods and services by the reporting unit and chargeable as expenses of production. These taxes include those invoiced by the reporting unit to its customers (commodity taxes) and those paid or to be paid by the reporting unit (non-commodity taxes).

## **28. Ex-factory Value**

The cost that is required for the production of one unit of goods through manufacturing process in an industrial establishment is ex-factory value.

## **29. Price of Manufactured Goods**

Price that is found by adding ex-factory value to indirect taxes and multiplying it by the quantity of goods produced.

## **30. Cost of production**

The cost of production includes industrial cost, non-industrial cost, employment cost and indirect taxes.

## **31. Fixed Assets**

Include depreciated book values of fixed assets as on the closing date of the year of the factory/establishment. Fixed assets cover all goods with a normal economic life of one year or more procured or produced out of its own resources for its own use. They include land, buildings, improvement to land, plant, manufacturing tools, transport equipments and other fixed assets.

### **32. Capital Expenditure Addition to Fixed Assets**

Composed of values of all fixed assets, whether fully paid or not, received during the reference year and value of major additions, alterations and improvements to existing assets which extend their normal economic life or raise their productivity.

### **33. Employment Cost**

Includes all payments, whether in cash or in kind, made by the employer. It includes all cash payments, bonuses, cost of living allowances, vacation and sick leave benefits, social insurance contribution, pension, etc.

### **34. Industrial Cost**

Cost of materials and supplies that are physically incorporated in the products and by-products, cost of fuel and power used for manufacturing purposes, as well as, payments for work done by others.

### **35. Operating Expenses/Non-industrial Cost**

The relevant costs other than the industrial costs. They include payments for water charges, printing and stationery, advertisements, business insurance, postage and telegraph, telephone, banking and accounting services, and also the cost of technical know-how and consultancy services. They exclude the interest paid to bank.

### **36. Gross Output**

Ex-factory value of products and by-products calculated on the basis of sale value of goods manufactured plus others receipts for work done and services rendered to others, plus value of net change in work-in-progress.

### **37. Gross Value Added**

Gross output minus the industrial cost.

### **38. Value Added At Factor Cost**

Gross value added or census value added minus operating expenses or non-industrial cost and indirect tax net of subsidies.

### **39. Small Establishment**

Small manufacturing establishments are those establishment where TPE (Total person engaged) size is less than 10 (Ten). Other than small manufacturing establishment, in case of wholesale & retail trade, hotel & restaurant and service sector, small establishment are defined as those establishment which have less than 20 (twenty) workers.

### **40. Medium and Large Establishment**

Medium and large establishment are those establishment where TPE (Total person engaged) size is more than 20 (Twenty) workers.

### **41. Household Establishment**

The household establishment has been placed only in the small group irrespective of the number of person engaged.

# CHAPTER-III

## SAMPLE DESIGN

### 3.1 Introduction

The Annual Establishment & Institution Survey (AEIS) sample design was based on two independent frames - a list frame based on the industrial directory of large establishments, and an area frame to cover the smaller establishments, the households economic activities and the large establishments missing from the list frame. After considering the advantages of integrated and sectoral approaches to the AEIS sample design it was decided to adopt integrated approach to cover economic sectors small manufacturing, wholesale & retail trade, hotel & restaurant including services, as well as, household based economic activities. It was also decided that, the list frame would cover the manufacturing establishments with 10 or more persons engaged; and establishments of all other sectors with 20 or more persons engaged. The area frame was designed to cover the smaller establishments below this cut-off points, although it served to cover the large establishments missing from the list frame. As a result, the data file that was used to produce the area frame included the manufacturing establishments with 1 to 9 persons and non-manufacturing establishments with 1 to 19 persons engaged. All other establishments were considered out of scope of the area frame. In the case of household based establishments there were no cut-off points. Therefore all households with relevant economic activities were included in the area frame.

For each sector two separate questionnaires were used – one with a month reference period for the smaller establishments covered through area frame, and the other with a year reference period for the large establishments covered through list frame. Only for the AEIS, the smaller establishments were covered through area frame using the month reference period. The large establishments were covered using a reference period, the fiscal year July 2002 to June 2003. The data collection for this part of the frame was started in July, 2003 and ended in December 2003.

### 3.2 Sample Design for AEIS Area Frame of Small Establishments and Household Economic activities

#### Stratification, Sample Size, Sample Allocation Procedure

Initially, it was planned to obtain AEIS estimates at the district level. Later on, taking into consideration the budgetary and operational constraints, it was decided to concentrate on obtaining reliable national level estimates with urban and rural breakups. Thus, the sample frame was stratified by division (Chittagong, Dhaka, Khulna & Rajshahi), urban & rural, that is 8 geographic strata, and hoping that it may still be possible to obtain reasonable estimates for some of the most economically important districts, an implicit stratification was made through ordering of the EA's by districts for systematic selection of sample EA's. Taking into account seasonality within each economic sector, it was planned to carry out data collection throughout the 12 months of the year. Therefore, the survey was based on monthly national sub-samples of EA's covering the entire year. In order to improve the national-level estimates, a sample of 1440 EA's were allocated to each stratum in proportion to its size considering the number of persons employed in each economic sector and the variety of BSIC groups represented. Another 60 EA's having exclusively handloom activities were also selected for proper representation of all EA's constituting Bangladesh. Thus, a total of 1500 EA's were selected.

The number of EA's selected in each stratum was calculated as follows:

$$n_h = [M_h / \sum (M_h)] * 1440$$

where,  $M_h$  = total cumulative measure of size for stratum  $h$

$\text{Sum}(M_h) = \text{sum of measures of size across all strata.}$

### **Selection of Sample EA's**

The sample EA's for the AEIS were selected systematically with probability proportional to size (PPS) within each geographic stratum. The selection of EA's were carried out by a computer, using the following steps:

- a) Within each stratum the EA's were ordered first by districts and then in descending order by the total number of persons engaged in both establishments and households.
- b) Cumulated the measure of size down the ordered list for the entire strata.
- c) Sampling interval for the stratum was calculated as follows:  
 $I_h = M_h/n_h$  where,  
 $M_h = \text{total cumulative measure of size for stratum } h$   
 $n_h = \text{number of sample EA's allocated to stratum } h$
- c) Generated a random start,  $R_h$  for stratum  $h$  between 0.0001 and  $M_h$
- d) Select the sample EA's systematically with PPS identified by the selection numbers,  
 $S_{hi} = R_h + [(i-1) * I_h]$ ,  $K=1,2,3, \dots, n_h$   
rounded upto the next integer.

### **Sub-sampling within Sample EA's**

The following procedures were used to select the samples within any BSIC group to be sub-sampled:

- e) Determined the total number of economic units  $E$  in the BSIC group listed in the EA, and the number  $e$  to be selected.
- f) Assigned a sequential serial number to each unit from 1 to  $E$ .
- g) Calculated the sampling interval  $I = E/e$
- h) Determined a random start  $R$  between 0.01 and 1
- i) Selected sample units systematically identified by the selected serial number  $S_{ki}$  as follows:  
 $S_{ki} = R + [(k-1) * I]$ ,  $K=1,2,3, \dots, e$   
rounded into the next integer.

A second stage sub-sampling was necessary for BSIC groups which had more than 10 economic units listed with the same selected EA.

Enumerators had to enter this second stage selection interval on the questionnaires of the sub-sampled establishments so that the appropriate weights could be determined.

## **3.3 Sample design for AEIS list frame of large & medium establishments**

The sampling strategy for each sector was determined on the basis of the survey objectives and the nature of the sectors. The total persons engaged (TPE) for the survey sectors (Wholesale Trade, Retail Trade, Hotel & Restaurant and Service) are heavily concentrated in the area frame, since most of the establishments are small.

The sampling for each of these sectors was designed to provide reliable result at a more aggregate level, as well as for the larger BSIC groups. The universe covered by this component of the AEIS consisted of all permanent establishments with 20 or more TPE in the wholesale Trade, Retail Trade, Hotel & Restaurant and Services sectors. The sampling frame consisted of a directory list of permanent establishments with names and addresses. The directory was compiled from data obtained from the economic census of 1986.

## **Stratification**

A stratified one-stage systematic sample design was used to select the sample of permanent establishments which was the unit of analysis. To increase the efficiency of the sample design the frame was first of all stratified into as many homogeneous groups as possible. The first level of stratification was by economic sectors (Wholesale Trade, Retail Trade, Hotel & Restaurant and Services). Since many of the characteristics to be measured by the survey, such as, the value of products, sales and expenses are collected with total person engaged the sampling frame was also stratified by the TPE size groups. Based on the distribution of the permanent establishments by size, the following three TPE size strata were created :

20 - 29	TPE
30 - 49	TPE
50 +	TPE

## **Sample Size**

The overall sample size was determined on the basis of the precision required for the individual BSIC domains with an upper limit set by resource constraints. At the first step, the overall sampling strategy for each sector was determined on the basis of distribution of the establishments by size and optimum allocation criteria. Table-1 represents the distribution of establishments in the directory list frame by economic sectors and TPE size groups, and Table-2 shows the sampling rates for each sector by TPE size group determined for the sampling approach.

**Table-1 : Number of permanent establishments in the directory list frame by economic sectors and TPE size groups.**

Sectors	Number of permanent establishments		
	TPE size groups		
	20-29	30-49	50+
Wholesale Trade	194	114	92
Retail Trade	120	41	9
Hotel & Restaurant	365	142	82
Services	1930	944	703

**Table-2 : Sampling rates by economic sectors and TPE size groups**

Sectors	Sampling rates		
	TPE size groups		
	20-29	30-49	50+
Wholesale Trade	25 %	50 %	100 %
Retail Trade	50 %	100 %	100 %
Hotel & Restaurant	25%	50%	100%
Services	10 %	20 %	100 %

This sampling strategy in an overall sample of approximately 1513 permanent establishments.

## **Sample Selection Procedure**

A one-stage systematic sample selection from a list frame with specified sampling rates is fairly straight-forward. For each stratum this sampling rate was determined by using Table-2. The sampling interval ( $I_h$ ) will be the inverse of the sampling rate, obtained an integer random start ( $R_h$ ) between  $I$  and  $I_h$ . The sample establishments were selected for stratum "h" beginning with the random start, and multiples of the sampling interval were added until the end of list for stratum "h" was reached. The selected establishments carried the following order numbers:

$R_h, R_h+I_h, R_h+2I_h, R_h+3I_h, \text{ etc.} \dots$

### 3.4 Enumeration

Personal interview method was adopted for the purpose of collecting the required information. The technical & trained staff of the Industrial Statistics Wing, Bangladesh Bureau of Statistics, contacted the individual respondents at their premises with a written request from the Bangladesh Bureau of Statistics, seeking their co-operation and explaining the object of the survey. During the enumeration the enumerators searched their assigned areas/establishments thoroughly, and identified the establishments/households to be enumerated. The information was sought from the heads of the establishments or from the next responsible person present. In case of any mistakes detected at the time of enumeration, corrective measures were taken by the enumerators by using their own argument.

### 3.5 Estimation Procedures

#### A. Weighing the Survey Data

The sample for the Survey was based on a stratified multistage design. The primary sampling units (PSUs) were the enumeration areas (EAs) which were selected with probability proportional to size (PPS). In order to expand the AEIS data to the national or domain levels, it was necessary to apply a weight (expansion factor) to the data from each survey record. The basic weight would be equal to the inverse of the probability of selection (calculated by multiplying the probabilities at each stage of selection). Since the EAs were selected with PPS a separate weight was calculated for each EA. In the case of BSIC groups which were sub-sampled within a sample EA, it was necessary to take into account this second stage probability. The overall probability of selection for each sample establishment or household was as follows:

$$P_{hij} = [n_h * M_{hi}] / \text{SUM}_h(M_{hi}) * e_{hij} / E_{hij},$$

where:  $P_{hij}$  = sampling probability for economic units in the j-th BSIC group with the i-th sample EA of stratum h

$n_h$  = number of sample EAs selected in stratum h

$M_{hi}$  = measure of size for the i-th sample EA in stratum h,

$\text{SUM}_h(M_{hi})$  = cumulative measure of size for stratum h, that is, the sum of the measures of size across all the EAs in the frame for stratum h

$e_{hij}$  = number of sample economic units selected for the j-th BASIC group within the i-th sample EA of stratum h

$E_{hij}$  = total number of economic units listed for the j-th BSIC group within the i-th sample EA of stratum h.

**Note :** In the case of BSIC groups for which no sub-sampling was carried out within the sample EA,  $e_{hij} = E_{hij}$ , and the second component of probability dropped out (since it was equal to 1).

The basic weight ( $w_{hij}$ ) to be attached to the record for each unit (establishment or household) was, therefore, the inverse of this probability, or :

$$W_{hij} = [\text{SUM}_h(M_{hi}) / (n_h * M_{hi})] * E_{hij} / e_{hij},$$

where :

$W_{hij}$  = weight or expansion factor for each sample economic unit in the j-th BSIC group in the i-th sample EA of stratum h

These basic weights were adjusted for non-interviews and for any other problems which affected the probabilities of selection.

Some of the most important survey estimates were in the form of totals, such as total production or employment. The survey estimates of the total obtained are as follow :

$$X = \text{SUM}_{hij} (W_{hij} * X_{hijk}), \text{ where :}$$

X = estimate of total for variable x

$W_{hij}$  = final adjusted weight for sample economic units in the j-th BSIC group within the i-th EA of stratum h

$X_{hijk}$  = value of variable x for the k-th sample economic unit in the j-th BSIC group within the i-th EA of stratum h

The expression “  $\sum_{hij}$  ” represents the summation within these levels. For particular domains, the summation would only be across the observations in that domain.

In the case of the survey estimate of the total number of economic units with a certain characteristic, the variable X was defined as follows:

X = 1 if the economic unit has that characteristic, or

X = 0 if otherwise

### **B. Variance estimation for the survey estimates**

The following formulas were used in calculating the ultimate cluster variance estimates for totals :

Variance Estimate for Totals :

$\text{Var}(X) = \sum_h [(n_h/n_h - 1) * \sum_i [X_{hi} - X_h/n_h]^2]$ , where :

$X_{hi} = \sum_{jk} (W_{hij} * X_{hijk})$ , the weighted total of variable X for the I-th EA in stratum h

### **3.6 Adjustment Factors for Non-response**

The Annual Establishment & Institution Survey (AEIS) data have been collected for the area frame and for the list frame of large establishments ; it is important that the basic sampling units (expansion factors) be adjusted to take into account of non-interviews. Given the different nature of these two frames, the non-interview adjustment procedures are described below :

#### **List Frame of Large Establishments**

In the case of list frame for large establishments, the basic sampling weights vary by stratum. The certainty stratum has a basic weight of 1. In order to ensure an appropriate non-interview adjustment to the weights, an interview status code was introduced for each sample establishment both certainty and non-certainty. The following 2-digit interview status codes were introduced to ensure proper adjustment to weights :

- (01) Completed questionnaire
- (02) Incomplete information - not used
- (03) Refused
- (04) Respondent not available
- (05) Mail-out questionnaire not returned / no follow-up
- (06) Not found (after follow-up)
- (07) Transferred- no information
- (08) Closed - temporary
- (09) Closed - permanent
- (10) Change of industry - out of scope
- (11) Number of TPE- out of scope
- (12) Fake establishment
- (13) Duplicate
- (14) New establishment- not in frame

Some of these codes apply mostly to the manufacturing sector, where the data collection began with a mail-out of the questionnaires, followed by personal interviews for most of the establishments which did not respond in time. The last category (14) is for new establishments, not in the frame but which were identified and interviewed, by the enumerators.

After the status code had been entered for each establishment in the file, the total number of sample establishments by status code for each stratum was calculated. The following non-interview adjustment factor was then calculated separately for each stratum :

$$A_h = \frac{\text{No. of establishments with status codes 01 through 08 in Stratum h}}{\text{No. of establishments with status code 01 in Stratum h}}$$

Where  $A_h$  = non-interview adjustment factor for Stratum h

The numerator of this adjustment factor is the number of valid establishments and the denominator is the number of respondent establishments.

This adjustment factor was not applied to the weight of questionnaires with status code 14 (new establishments not in frame), since they were simply to be added to the file with a weight of 1. The final weight for the remaining establishments in Stratum h were calculated as follows:

$$W_h = A_h * W_{h,}$$

Where  $W_h$  = basic weight for Stratum h.

### **Area Frame**

For the area frame, each sample enumeration area (EA) has a unique weight, since the sample EAs were selected with probability proportional to size (PPS). Therefore, its weight was adjusted at the EA level. For this purpose, it was necessary to determine the number of valid (in scope) establishments in the sample EA (corresponding to status codes 01 through 08 defined previously) and the number of completed interviews for each sample EA. Then the basic weight for the sample EA was multiplied by the following non-interview adjustment factor:

$$A_{hi} = \frac{\text{No. of valid establishments in the sample EA}}{\text{No. of respondent establishments in the EA}}$$

where  $A_{hi}$  = adjustment factor for the i-th sample EA in Stratum h. When the establishments in a particular BSIC group were sub-sampled within the sample EA (because of the large number of establishments), a sub-sampling factor was applied to the basic weight; so, a separate adjustment factor was used for this group. In this case, the numerator and denominator of the noninterview adjustment, factor would refer to the establishments selected in the sub-sample.

### **Large Establishments in the Area Frame**

In the case of establishments with 20 or more TPE found in the sample areas, a matching was carried out with the list of large establishments. If the establishment was matched it was deleted from the area frame. However, if it was not found in the list frame then it was treated as a new or omitted establishment, and its result was published together with the data for the large establishments.

## **CHAPTER-IV**

### **DATA PROCESSING**

#### **4.1 Verification of Geo-Code**

Geo-code for the EA was transcribed on the survey schedules by the enumerators. It served as the means for entering the geo-code for the computer. The geo-codes written by the enumerators were thoroughly verified with the original geo-code list and all discrepancies resolved.

#### **4.2 Manual Editing**

After completion of the survey, the enumerators submitted the filled-in questionnaires to the headquarters. After receiving the questionnaires the respective officers checked the work of the enumerators. If any gross mistake or omission or duplication was observed the concerned officers, as far as possible, corrected it accordingly, and advised the concerned enumerators not to make such errors in future. Then the filled-in questionnaires were manually edited as per instruction provided to the editors. The edited schedules were checked on sample basis. If the error rate was found beyond acceptable limit for any editors, then 100% check was made.

#### **4.3 Coding of Economic Activities**

A "code" is a numeric symbol by which information can be classified or organised. A team of trained coders assigned a 4-digit BSIC code to each questionnaire for each unit on the basis of its economic activity. Commodity code for each commodity was also assigned accordingly. Each coder was supplied with a coding manual both in English & Bengali which showed the entire coding structure with detailed descriptions of each classification. The entire coding operation was subjected to a rigorous quality control operation. Every coder's 100% work was verified until he had demonstrated himself to be a qualified coder. After then each qualified coder's codework was verified upto 10%.

#### **4.4 Computer Processing & Tabulation**

After completion of editing and coding work, the filled-in schedules hotel & restaurant are sent to Computer Wing for computer processing of the data and other sectors small manufacturing, wholesale & retail trade, service and household based economic activities have done by Industry & Labour Wing in micro computer environment. The data were captured by key punching and subsequently transferred into compact disk (CD) and were edited by the computer thoroughly to identify the suspected relationships among the data items and possible incorrect markings by the enumerators. Complete listings of the potentially erroneous questionnaires were prepared. These were reviewed for inconsistencies and corrected whenever found necessary. The data were then prepared for processing. Necessary computer programmes were written to produce statistical tables as per tabulation plan. A total of 104 statistical tables were prepared comprising all sectors/sub-sectors of the economy covered by the AEIS both through area sample and the list sample.

#### **4.5 Publication of Annual Establishment & Institution Survey (AEIS) data**

The data published in this report show the detailed financial and operating data for economic activities in (1) Small manufacturing with 1-9 persons working, (2) Wholesale and retail Trade, (3) Hotel & Restaurants (4) Business, community, social and personal services and (5) Household

economic activities. The printing work for this Survey (AEIS) report was done in the BBS Reproduction Unit.

## **The publication of AEIS data follows the following publication plan:**

### **PART-I: Small Manufacturing with 1-9 persons working.**

This part of the AEIS was conducted for all manufacturing establishments with 1-9 persons working with a separate questionnaire following area frame and with a month reference period. Detailed financial and operating data have been presented in 19 Statistical tables by Industry Division (2-digit), Industry Major Groups (3-digit) and also by Industry Groups (4-digit) in some of the tables.

### **PART-II: Wholesale and Retail Trade – Establishment all sizes.**

This part of the AEIS was conducted for wholesale and retail trade with a long-form questionnaire for establishments having 20 or more persons working following the list frame and with a year reference period, whereas, a short-form questionnaire for smaller establishments having 1-19 persons working was used with a month reference period following the area frame. Data collected with two different frames and questionnaires were, however, combined together in 19 Statistical tables of this part providing, thereby Industry Division (2-digit) and by Industry Major Groups (3-digit) and also by industry groups (4-digit) in the tables.

### **PART-III: Hotel & Restaurants – Establishment of all sizes.**

This part of AEIS was conducted for hotel & restaurants with a long-form questionnaire for establishments having 20 or more persons working following the list frame and with a year reference period, whereas, a short-form questionnaire for smaller establishments having 1-19 persons working was used with a month reference period following the area frame. Data collected with two different frames and questionnaires were, however, combined together in 17 statistical tables of this part providing thereby, estimates for the establishments of all sizes by Industry Division (2-digit), Industry major groups (3-digit) and also by Industry Groups (4-digit) in some of the tables.

### **PART-IV: Service Industries (business, community, social and personal services)- Establishments of all sizes.**

This part of AEIS was conducted for Service Industries with a long-form questionnaire for establishments having 20 or more persons working following the list frame and with a year reference period, whereas, a short-form questionnaire for smaller establishments having 1-19 persons working was used with a month reference period following the area frame. Data collected with two different frames and questionnaires were, however, combined together in 19 statistical tables of this part providing thereby, estimates for the establishments of all sizes by Industry Division (2-digit), Industry major groups (3-digit) and also by Industry Groups (4-digit) in some of the tables.

### **PART-V: Household Based Manufacturing Industries**

This part of AEIS was conducted for household manufacturing industries with a single questionnaire for all types of household economic activities and thereafter, processed separately for manufacturing and activities other than manufacturing i.e. trades and services, etc. Data collection was done using area frame with a month reference period. Detailed financial and operating data have been presented in 15 Statistical tables by Industry Division (2-digit) and by Industry Major Groups (3-digit) and by Industry Groups (4-digit) in some of the tables.

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### **PART-VI: Household Based other than Manufacturing Industries.**

This last part of AEIS was conducted for all household industries other than manufacturing with the same questionnaire and a reference period of one month as for household manufacturing, but processed and presented separately in another 15 Statistical tables. These show data by Industry Division (2-digit) by industry Major Groups (3-digit) and by Industry Groups (4-digit) in some of the tables for the trade, services and other non-agriculture activities in the households or household premises.

## **CHAPTER-V** **(Summary Findings)**

### **Small Manufacturing Industries - Establishments with 1-9 Employees.**

#### **1 Legal Status of Establishments**

Out of 211401 establishments, 211304 establishments are individually owned and 97 establishments are in partnership.

#### **2 Ownership of Establishments**

Out of 211401 establishments all establishments are under private ownership.

#### **3 Establishments by Division**

Establishments located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal & Sylhet are estimated to be 61574, 56382, 42142, 23152, 21578 & 6573 respectively.

#### **4. Employment**

Out of 631800 persons, 590459 are male and 41341 are female workers. Work in these establishments of which 101880 are Admin/Managerial/Clerical, Sale and other paid worker and 272906 are proprietor/partner/unpaid family worker.

#### **5. Employment Costs**

Employment cost is 8400 million taka (13295 taka per person per annum) as against the total wages and salaries paid to sales and other paid workers during the year 7774 million taka (21661 taka per person per annum).

#### **6. Industrial Cost**

Industrial Cost of merchandises sold/consumed is Tk. 67316 million.

#### **7. Non- Industrial Cost**

Operating cost is Tk. 4358 million.

#### **8. Gross Output**

Total value of gross output is Tk. 101491 million at the expenses of 67316 million Tk. as the cost of merchandise sold/consumed and 4358 million Tk. as the operating cost which are respectively 66.33% and 4.29% of the total gross output.

#### **9. Gross Value Added and Value Added at Factor Cost**

Gross value added in the small scale manufacturing sector industries is estimated to be 34174 million Tk. and the value added at factor cost is 29813 million Tk. which is 47188 Tk. per person per annum.

### **II. Wholesale & Retail Trade - Establishments all sizes.**

#### **10. Legal status of Establishments**

Out of 1574334 establishments, 1574248 establishments are individually owned, 23 establishments are in partnership and the rest are under private limited co., co-operative societies, autonomous corporations and other categories of legal status.

### **11. Ownership of Establishments**

Out of 1574334 establishments 1567204 establishments are under private ownership and the rest are under government, semi-government, joint venture and other categories of ownership of establishment.

### **12. Establishments by Division**

The establishments located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal & Sylhet Divisions are estimated to be 504112, 314720, 357640, 241199, 71491 & 85172 respectively.

### **13. Employment**

Out of 2126177 persons, 2104310 are male and 21867 are female workers work in these establishments of which 71570 are in repair and maintenance, 34342 are in wholesale trade, 1468421 are in retail trade of which 258911 are sales & clerical, 151778 are all other paid workers & 1715488 are unpaid family helpers, proprietors & partners. Only 1.03% female workers work in this sector as against 98.97% male workers. Out of the total persons working in this sector 12.18% are sales & clerical workers, 7.14% are all other paid workers & 80.68% are unpaid proprietors, partners & family workers.

### **14. Addition to Fixed Assets**

Addition to fixed assets by the establishments in this sector during the year 2002-03 is estimated at Taka 1.72 million. 2.7% of the establishments has an addition to fixed assets below 1,000 Taka, 22.9% between 1,000 - 4,999 Taka, 7.1% between 5,000 - 9,999 Taka, 6.8% between 10,000 - 19,999 Taka and 61.% Taka 20,000 and above.

### **15. Employment Costs**

Total employment cost is 11059 million Taka (50201 Taka per person per annum), as against total wages & salaries paid to sales & other paid workers during the year is 8716 million Taka (4099 Taka per worker per annum)

### **16. Cost of Materials, Supplies and Operating Cost**

Total cost of materials and supplies is Tk. 652672 million as against operating cost of Tk. 31024 million or 4.8% of the total cost of materials and supplies.

### **17. Gross Output**

Total value of gross output is 788942 million Taka at the expense of 652672 million Taka as cost of materials and supplies which is 83% of total gross output .

### **18. Gross Value Added & Value Added at Factor Cost**

Gross value added is estimated to be Taka 136270 million and value-added at factor cost at Taka 105246 million which is 49500 Taka per person per annum.

## **III. Hotel & Restaurant - Establishments of all sizes.**

### **19. Legal Status of Establishments**

Out of 215103 establishments, 214080 establishments are individually owned, 483 establishments are in partnership, 9 establishments are under private limited company, 2 establishments are Autonomous Corporation & 529 establishments are other categories of legal status.

## **20. Ownership of Establishments**

Out of 215103 establishments 214159 establishments are under private ownership and rest are government, joint venture ownership of establishment.

## **21. Establishments by Division**

Establishments located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal & Sylhet are estimated to be 52076, 83517, 39466, 18122, 10805 & 11116 respectively.

## **22. Employment**

Out of 477703 persons, 471825 are male and 5878 are female workers. Work in these establishments of which 192624 are Admin/Managerial/Clerical, Sale and other paid worker and 285083 are proprietor/partner/unpaid family worker.

## **23. Employment Costs**

Employment cost is 4012 million taka (8399 taka per person per annum) as against the total wages and salaries paid to sales and other paid workers during the year 3290 million taka (7080 taka per person per annum).

## **24. Cost of Merchandises Sold/Consumed**

Cost of merchandises sold/consumed is Tk. 44777 million.

## **25. Operating Cost**

Operating cost is Tk. 3290 million.

## **26. Gross Output**

Total value of gross output is Tk. 66472 million at the expenses of 44777 million Tk. as the cost of merchandise sold/consumed and 3290 million Tk. as the operating cost which are respectively 67.37% and 4.95% of the total gross output.

## **27. Gross Value Added and Value Added at Factor Cost**

Gross value added in the Hotel & Restaurant sector industries is estimated to be 21694 million Tk. and the value added at factor cost is 18318 million Tk. which is 38348 Tk. per person per annum.

## **IV. Service Industries (Business, community, social and Personal Services) Establishments of all sizes.**

### **28.. Legal Status of Establishments**

Out of 646413 establishments 511236 are individually owned 496 are partnership, 3143 are co-operative society, 256 are private Ltd. Co., 399 are autonomous corporation and 130881 are others. A very few of them are however under public Ltd..

### **29. Ownership of Establishments.**

Out of 646413 establishments 19004 are government, 554667 are private, 10910 Joint-venture and 61832 are others.

### **30. Establishment by Division**

Establishment located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal & Sylhet division are estimated to be 122335, 157049, 169507, 64519, 102548 & 30431 respectively.

### **31. Employment**

A total 1966881 persons working these establishments out of which 1619785 are administrative, managerial clerical and other paid workers. Among them 347096 are proprietor, partner and unpaid family workers. Among the Administrative, managerial, clerical and proprietor 1736767 are male and 230115 are female.

### **32. Employment Cost**

Employment cost is 62727 million taka (31891 taka per person annum) as against the total wages and salaries paid to sales and other paid workers during the year 56741 million taka (28848 taka per person per annum).

### **33. Cost of Materials and Supplies in Rendering Services**

Cost of materials and supplies in rendering services is Tk. 27704 million.

### **34. Operating Cost**

Operation cost is Tk. 17520 million.

### **35. Gross Output**

Total value of gross output is Tk. 230948 million at the expense of 27704 million Tk. as the cost of materials, supplies in rendering services and 17520 million Tk. as the operating cost which are respectively 12.0% and 7.59 % of the total gross output.

### **36. Gross Value Added and Value Added at Factor Cost**

Gross value added and value added at factor cost in the service sector industries is estimated to be 203243 million Tk. and the value added at factor cost is 185723 million Tk. which is 94425 Tk. per person per annum.

## **V. Household Based Manufacturing Industries.**

### **37. Establishments by Division**

Out of 284141 establishments, 150519 establishments are handlooms, 98920, 1335, 130538, 41597. 10607 & 316 establishments are located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal and Sylhet Divisions respectively.

### **38. Employment**

Total number of persons engaged is 1082955 of which 803208 are paid workers and 279749 are unpaid family workers. Among the proprietors and unpaid family workers, 91.22 % are male and 20.69 % are female workers, whereas, among the paid workers 85.76 % are male and only 14.2 % are female workers.

### **39. Addition to Fixed Assets**

Addition to the fixed assets by the household manufacturing industries during the year 2002-03 is estimated at Taka 379 million 1.53 % of the establishments have an addition to fixed assets below 500 Taka, 1.76 % between 500-999 Taka, 11.88 % between 1,000-2,999 Taka, 4.8 % between 3,000-4,999 Taka and 79.98 % Taka 5,000 and above.

#### **40. Employment Costs**

Total employment cost is 9619 million Taka (8882 Taka per person per annum), as against the total wages & salaries paid to employees during the year is 7070 million Taka (8803 Taka per paid worker per annum).

#### **41. Industrial Costs & Non-industrial Cost**

Total industrial cost is Tk. 61009 million as against the non-industrial cost of Tk.1938 million or 3.18 % of the total industrial cost.

#### **42. Gross Output**

Total value of gross output is 92570 million Taka at the expense of 61009 million Taka as industrial cost and 1938 million Taka as non-industrial cost, which are 65.91% and 2.09 % of the total gross output respectively.

#### **43. Gross Value Added & Value Added at Factor Cost**

Gross value added in the household manufacturing sector is estimated to be 31561 million Taka and the value added at factor cost is 29623 million Taka which is 27354 Taka per person per annum.

### **VI. Household Based other than Manufacturing Industries.**

#### **44. Establishments by Division**

Total number of enumerated household industries is 137989 of which 35389, 18016, 76475, 6984, 622 & 503 establishments are located in Dhaka, Chittagong, Rajshahi, Khulna, Barisal & Sylhet Divisions respectively.

#### **45. Employment**

Total number of persons engaged is 165477 of which 11341 are paid workers and 154136 are proprietors & unpaid family workers. Among the proprietors and unpaid family workers 81.46 % are male and 18.54 % are female workers, where as among the paid workers 73.32% are male and only 26.68 % are female workers.

#### **46. Addition to Fixed Assets**

Addition to fixed assets by the non-manufacturing household industries during the year 2002-03 is estimated at Taka 341 million 54.35 % of the establishments have an addition to fixed assets below 500 Taka, 1.17 % between 500-999 Taka, 6.29 % between 1000-2999 Taka 17.41 % between 3000-4999 Taka, and 20.78 % Taka 5000 and above.

#### **47. Employment Cost**

Total employment cost is 188 million Taka (1135 Taka per person per annum) as against the total wages & salaries paid to employees during the year is 158 million Taka (13932 Taka per paid worker per annum).

#### **48. Industrial Cost and Non-industrial Cost**

Total industrial cost is 7716 million Taka as against the non-industrial cost of 424 million Taka which is 5.50 % of the total merchandise sold cost.

**49. Gross Output**

Total value of gross output is 13079 million Taka at the expense of 7716 million Taka as the merchandise sold cost and 424 million Taka as the operating cost which are 59.0 % and 3.24 % of the total gross output respectively.

**50. Gross Value Added and Value Added at Factor Cost**

Gross value added in the household non-manufacturing industries is estimated to be 5364 million Taka and the value added at factor cost is 4939 million Taka, which is 29847 Taka per person per annum.

# **STATISTICAL TABLES**

## **PART-1**

### **SMALL MANUFACTURING INDUSTRIES ESTABLISHMENTS WITH 1-9 PERSONS ENGAGED**

## ***Abbreviations and Footnotes Used in the Tables***

### **Abbreviations**

BSIC	Bangladesh Standard Industrial Classification
EQUIP.	Equipment
ESTAB.	Establishments
EXC.	Except
MFG.	Manufacturing
NEC.	Not elsewhere classified
PROD.	Production
PRES.	Preservation
PROC.	Processing
MACH.	Machinery
AGRI.	Agriculture

### **Footnotes**

Detail may not add to total due to independent adjustment and rounding using independent raising factors to the sample data. As a result of this adjustment and subsequent rounding, the totals and subtotals in and between the tables may be slightly different. These differences are, however, small and not statistically significant.

## SUMMARY STATISTICS SMALL MANUFACTURING

Key findings of Annual Establishment & Institution Survey, Small Manufacturing Sector  
for the years 1995-96, 1996-97 & 2002-03.

SI. No.	Characteristics	AEIS (Small Manufacturing Sector)		
		1995-96	1996-97	2002-03
1.	<b>No. of establishment</b>	150002	162789	211401
2.	<b>No. of establishment by administrative division:</b>			
	Dhaka	51598	48414	61574
	Chittagong	12831	32830	56382
	Rajshahi	48116	51566	42142
	Khulna	14896	29979	23152
	Barisal			21578
	Sylhet			6573
3.	<b>Number of persons engaged :</b>			
	Below 3 persons	123198	144291	170012
	3-5 persons	181296	205351	306319
	6-9 persons	289442	247966	155469
	Total	593936	597608	631800
4.	<b>Number of persons engaged by sex :</b>			
	Male	563337	557287	590459
	Female	30599	40320	41341
	Total	593936	597608	631800
5.	<b>Persons engaged by working status</b>			
	Admin/Managerial/Clerical sale and other paid worker	27929	15841	101880
	Production worker	286079	335799	257014
	Proprietor/partner/unpaid family worker	279928	245968	272906
6.	<b>Number of establishments by ownership:</b>			
	Government	-	-	
	Semi-government	-	-	
	Private	150002	162789	211401
	Joint venture	-	-	
	Others	-	-	

Sl. No.	Characteristics	AEIS (Small Manufacturing Sector)		
		1995-96	1996-97	2002-03
<b>7.</b>	<b>Number of establishments by legal status:</b>			
	Individually owned	149807	162329	211304
	Partnership	106	72	97
	Private Ltd. Co.	89	387	-
	Autonomous corporation	-	-	-
	Public Ltd. Co.	-	-	-
	Co-operative society	-	-	-
	Others	-	-	-
<b>8.</b>	<b>Employment cost (Million Tk.)</b>			
	Wages and salary	5637	6057	7774
	Other cash benefit & Non cash benefit	930	682	626
	Total Employment cost	6567	6739	8400
<b>9.</b>	<b>Gross output (Million Tk.)</b>	66664	73232	101491
<b>10.</b>	<b>Industrial cost (Million Tk.)</b>	46305	46123	67316
<b>11.</b>	<b>Non industrial cost (Million Tk.)</b>	5326	5889	4358
<b>12.</b>	<b>Total input cost (Million Tk.)</b>	51631	52013	71674
<b>13.</b>	<b>Gross value added (Million Tk)</b>	20359	27108	34174
<b>14.</b>	<b>Value added at factor cost(Million Tk.)</b>	15029	21210	29813
<b>15.</b>	<b>Average employment cost per estab.('000'Tk.)</b>	43.78	41.40	39.74
<b>16.</b>	<b>Average input cost per estab. ('000' Tk.)</b>	344.20	319.51	339.05
<b>17.</b>	<b>Average value added at factor cost per estb. ('000'Tk.)</b>	100.19	130.29	141.03
<b>18.</b>	<b>Employment cost per person per annum (Tk.)</b>	11060	11277	13295
<b>19.</b>	<b>Value added at factor cost per person per annum (Tk.)</b>	25304	35491	47188

# **STATISTICAL TABLES**

## **PART-II**

### **WHOLESALE & RETAIL TRADE ESTABLISHMENT OF ALL SIZES**

## ***Abbreviations and Footnotes Used in the Tables***

### **Abbreviations**

BSIC	Bangladesh Standard Industrial Classification
EQUIP	Equipment
EXC.	Except
NEC	Not elsewhere classified
WS	Wholesale
RS	Retail sale
REP.	Repair
MAIN.	Maintenance
H.H	Household
AGRI .	Agriculture

### **Footnotes**

Detail may not add to total due to independent adjustment and rounding using independent raising factors to the sample data. As a result of this adjustment and subsequent rounding, the totals and subtotals in and between the tables may be slightly different. These differences are, however, small and not statistically significant.

## SUMMARY STATISTICS

### WHOLESALE & RETAIL TRADE SECTOR

Key findings of Annual Establishment & Institution Survey (Trade sector) for the years 1995-96, 1996-97 & 2002-03.

	Characteristics	AEIS (Wholesale & Retail Trade sector)		
		1995-96	1996-97	2002-03
1.	<b>Number of establishments</b>	1093977	1099296	1574334
2.	<b>Number. of establishments by administrative division:</b>			
	Dhaka	375629	350692	504112
	Chittagong	295919	332723	314720
	Rajshahi	220204	196538	357640
	Khulna	202225	219344	241199
	Sylhet			85172
	Barisal			71491
3.	<b>Number. of persons engaged</b>			
	Below 3 persons	1341484	1400561	1480044
	3-5 persons	210234	228796	87545
	6-9 persons	17486	16066	4861
	10-19 persons	7952	11033	1427
	20 + persons	20391	11035	454
	Total	1597547	1667490	1574331
4.	<b>Number of persons engaged by sex</b>			
	Male	1593826	1664272	2104310
	Female	3721	3218	21867
	Total	1597547	1667490	2126177
5.	<b>Persons engaged by working status</b>			
	Administrative/managerial/clerical/sale And other paid workers	280237	268378	410689
	Proprietor/partner/unpaid family workers	1317310	1399112	1715488
6.	<b>Number of establishments by ownership</b>			
	Government/ Semi-government	15	125	179
	Private	1093442	1098415	1567204
	Joint venture	401	754	143
	Others	119	2	6808

	Characteristics	AEIS (Wholesale & Retail Trade sector)		
		1995-96	1996-97	2002-03
<b>7.</b>	<b>Number. of establishments by legal status</b>			
	Individually owned	1093249	1093742	1574248
	Partnership	509	5053	23
	Public limited company	5	10	5
	Private limited company	46	339	50
	Autonomous corporation	6	147	-
	Cooperative society	5	-	-
..	Others	158	7	8
<b>8.</b>	<b>Employment cost (million taka)</b>			
	Wages and salaries (million taka)	3958	4839	8716
	Other cash benefit & non-cash Benefit (million taka)	2512	1909	2343
	Total employment cost	6470	6748	11059
<b>9.</b>	<b>Gross output (million Tk.)</b>	503639	515710	788942
<b>10.</b>	<b>Cost of materials and supplies (million Tk.)</b>	413602	423907	652672
<b>11.</b>	<b>Operating cost (million Tk.)</b>	11797	12188	31024
<b>12.</b>	<b>Total input cost (million Tk.)</b>	425399	436095	683696
<b>13.</b>	<b>Gross value added (million Tk.)</b>	90037	91803	136270
<b>14.</b>	<b>Value added at factor cost (million Tk.)</b>	78002	79172	105246
<b>15.</b>	<b>Average no. of employees per establishment</b>	1.46	1.52	1.35
<b>16.</b>	<b>Average employment cost per establishment ('000' Tk.)</b>	5.91	6.13	7.02
<b>17.</b>	<b>Average input cost per establishment ('000' Tk.)</b>	389	397	434
<b>18.</b>	<b>Average value added at factor cost per Establishment ('000' Tk.)</b>	71.30	72.02	66.85
<b>19.</b>	<b>Employment cost per person per annum (Tk.)</b>	4050	4046	5201
<b>20.</b>	<b>Value added at factor cost per person per annum (Tk.)</b>	48826	47480	49500

# **STATISTICAL TABLES**

## **PART-III**

### **HOTEL & RESTAURANT INDUSTRIES ESTABLISHMENTS OF ALL SIZES**



## SUMMARY STATISTICS

### HOTEL & RESTAURANT SECTOR

Key findings of Annual Establishment & Institution Survey, Hotel & Restaurant Sector  
for the years 1992-93 & 2002-03.

Sl. No.	Characteristics	AEIS (Hotel & Restaurant Sector)	
		1992-93	2002-03
1.	<b>Number of establishments :</b>	117981	215103
2.	<b>Number of establishments by administrative division:</b>		
	Dhaka	35405	52076
	Chittagong	42704	83517
	Rajshahi	24173	39466
	Khulna	15699	18122
	Barisal	-	10805
	Sylhet	-	11116
3.	<b>Number of persons engaged :</b>		
	Below 3 persons	116826	281459
	3-5 persons	14471	124323
	6-9 persons	49722	29334
	10-19 persons	29605	27092
	20 + persons	2914	15495
	Total	343338	477703
4.	<b>Number of persons engaged by sex:</b>		
	Male	336616	471825
	Female	6721	5878
	Total	343337	477703
5.	<b>Persons engaged by working status:</b>		
	Admin/Managerial/Clerical sale and other paid worker	173965	192624
	Proprietor/partner/unpaid family worker	169372	285083
6.	<b>Number of establishments by ownership :</b>		
	Government	133	713
	Semi-government	0	0
	Private	17813	214159
	Joint venture	2	231
	Others	33	0

Sl. No.	Characteristics	AEIS (Hotel & Restaurant Sector)	
		1992-93	2002-03
<b>7.</b>	<b>Number of establishments by legal status</b>		
	Individually owned	117851	214080
	Partnership	4	483
	Private Ltd. Co.	2	9
	Autonomous corporation	0	2
	Public Ltd. Co.	0	0
	Co-operative society	0	0
	Others	124	529
<b>8.</b>	<b>Employment cost (Million Tk.)</b>		
	Wages and salary	1629	3290
	Other cash benefit & Non cash benefit	734	722
	Total Employment cost	2363	4012
<b>9.</b>	<b>Gross output (Million Tk.)</b>	30975	66472
<b>10.</b>	<b>Cost of merchandises sold/consumed (Million Tk.)</b>	22699	44777
<b>11.</b>	<b>Operating cost (Million Tk.)</b>	979	3290
<b>12.</b>	<b>Total Input cost (Million Tk.)</b>	23678	48067
<b>13.</b>	<b>Gross value added (Million Tk)</b>	8277	21695
<b>14.</b>	<b>Value added at factor cost (Million Tk.)</b>	7280	18319
<b>15.</b>	<b>Average employment cost per estab.('000'Tk.)</b>	20.03	18.65
<b>16.</b>	<b>Average input cost per estab. ('000'Tk.)</b>	200.69	223.46
<b>17.</b>	<b>Average value added at factor cost per establishment ('000'Tk.)</b>	61.70	85.16
<b>18.</b>	<b>Employment cost per person per annum (Tk.)</b>	6882	8399
<b>19.</b>	<b>Value added at factor cost per person per annum (Tk.)</b>	21203	38348

# **STATISTICAL TABLES**

## **PART-IV**

**SERVICE INDUSTRIES (BUSINESS, COMMUNITY,  
SOCIAL, CULTURAL AND PERSONAL SERVICES)-  
ESTABLISHMENTS OF ALL SIZES**

## ***Abbreviations and Footnotes Used in the Tables***

### **Abbreviations**

BSIC	Bangladesh Standard Industrial Classification
EDU.	Education
EQUIP	Equipment
EST.	Establishments
NEC	Not elsewhere classified
SERV.	Services
ACTI.	Activities
ENG.	Engineering
DEVP.	Development
BUSI.	Business
LIBRA.	Library
CULT.	Cultural
PICT.	Picture
ORGA.	Organization
PERSO.	Personal

### **Footnotes**

Detail may not add to total due to independent adjustment and rounding using independent raising factors to the sample data. As a result of this adjustment and subsequent rounding, the totals and subtotals in and between the tables may be slightly different. These differences are, however, small and not statistically significant.

## SUMMARY STATISTICS

### Service Sector

Key findings of Annual Establishment & Institution Survey (Social, Community, Business & personal services) for the year 1995-96, 1996-97 & 2002-03.

S.L	Characteristics	AEIS (Service sector)		
		1995-96	1996-97	2002-03
1.	<b>Number of establishment</b>	598169	505412	646413
2.	<b>Number of establishment by administrative division</b>			
	Dhaka	180097	91467	122335
	Chittagong	129156	163226	157049
	Rajshahi	190546	136785	169507
	Khulna	98370	113934	64519
	Barisal	-	-	102548
	Sylhet	-	-	30431
3.	<b>Number of employees :</b>			
	Below 3 person	612550	513935	631317
	3-5 person	412260	368031	530256
	6-9 person	50821	38544	119098
	10-19 person	340800	270244	250202
	20 + person	199411	245694	436009
	Total	1615841	1436449	1966881
4.	<b>Number of all employees</b>			
	Male	1478166	1333496	1736767
	Female	137675	102953	230115
	Total	1615841	1436449	1966881
5.	Person engaged by working status			
	- Administrative/Managerial/Clerical sale and other paid worker	1184903	1087175	1619785
	- Proprietor/partner/unpaid family worker	430938	349273	347096
6.	<b>Number of ownership of establishment</b>			
	- Government \ Semi-government	36694	27117	19004
	- Private	488415	392854	554667
	- Joint venture	453	464	10910
	- Others	72606	84978	61832

S.L	Characteristics	AEIS (Service sector)		
		1995-96	1996-97	2002-03
<b>7.</b>	<b>Legal status</b>			
	- Individually owned	421789	327236	511236
	- Partnership	2547	2863	496
	- Public Ltd. Co.	94	96	3
	- Private Ltd. Co.	334	188	256
	- autonomous corporation	1793	112	399
	- Co-operative society	3103	298	3143
	- Others	168507	174619	130881
<b>8.</b>	<b>Employment cost (Million Tk.)</b>			
	- Wages and salary	27500	25495	56741
	- Other cash benefit & Non cash benefit	2900	2658	5985
	Total employment cost	30401	28153	62727
<b>9.</b>	<b>Gross output (Million Tk.)</b>	79997	61866	230948
<b>10.</b>	<b>Cost of materials and supplies consumed in rendering services (Million Tk)</b>	20533	8957	27704
<b>11.</b>	<b>Operating cost (Million Tk.)</b>	5345	5061	17520
<b>12.</b>	<b>Total input cost (Million Tk.)</b>	25879	14018	45224
<b>13.</b>	<b>Gross value added (Million Tk.)</b>	59464	52909	203243
<b>14.</b>	<b>Value added at factor cost(Million Tk.)</b>	53928	47550	185723
<b>15.</b>	<b>Average number of employees per Estb.</b>	2.70	2.84	3.04
<b>16.</b>	<b>Average employment cost per establishment ('000' Tk.)</b>	50.82	55.70	97.03
<b>17.</b>	<b>Average input cost per establishment ('000' Tk.).</b>	43.26	27.73	69.96
<b>18.</b>	<b>Average value added at factor cost per establishment ('000' Tk.)</b>	90.16	94.08	287.31
<b>19.</b>	<b>Employment cost per person per annum (Tk.)</b>	18814	19599	31891
<b>20.</b>	<b>Value added at factor cost per person per annum (Tk.)</b>	33374	33102	94425

# **STATISTICAL TABLES**

## **PART-V**

### **HOUSEHOLD MANUFACTURING INDUSTRIES**

## ***Abbreviations and Footnotes Used in the Tables***

### **Abbreviations**

BSIC	Bangladesh Standard Industrial Classification
EQPT.	Equipment
MFG.	Manufacturing
NEC.	Not Elsewhere Classified
PROD.	Production
PRES.	Preservation
PROC.	Processing
AGRI.	Agriculture
TEXT	Textile
HH	Household
BUSI.	Business

### **Footnotes**

Detail may not add to total due to independent adjustment and rounding using independent raising factors to the sample data. As a result of this adjustment and subsequent rounding, the totals and subtotals in and between the tables may be slightly different. These differences are, however, small and not statistically significant.

## SUMMARY STATISTICS HOUSEHOLD MANUFACTURING

Key findings of Annual Establishment & Institution Survey (Household Manufacturing Industries) for the year 1995-96, 1996-97 & 2002-03.

	Characteristics	AEIS (Household Manufacturing Industries)		
		1995-96	1996-97	2002-03
<b>1.</b>	<b>Number of establishment</b>	339713	254387	284141
<b>2.</b>	<b>Number of establishment by administrative division</b>	339713	254387	284141
	Dhaka	124998	84361	99061
	Chittagong	56966	13542	1335
	Rajshahi	75495	67817	130538
	Khulna	82254	88667	42284
	Barisal			10607
	Sylhet			316
<b>3.</b>	<b>Number of person engaged</b>			
	Below 3 person	374280	250366	242760
	3-5 person	353524	334369	393385
	6-9 person	110995	101316	168578
	10+	150002	225487	278234
	Total	988803	911539	1082957
<b>4.</b>	<b>Number of all employees</b>			
	Male	791730	692540	858912
	Female	197073	218999	224045
	Total	988803	911539	1082957
<b>5.</b>	<b>Employment cost (Million Tk.)</b>			
	- Wages and salary	5734.92	7390.89	7070
	- Other cash benefit & Non cash benefit	1618.66	443.47	2549
	- Total Employment cost	7353.58	7834.36	9619
<b>6.</b>	<b>Gross output (Million Tk)</b>	71076.72	73992.22	92570
<b>7.</b>	<b>Industrial cost (Million Tk)</b>	49272.48	56072.38	61009
<b>8.</b>	<b>Non-industrial cost (Million Tk)</b>	2560.28	2575.81	1938
<b>9.</b>	<b>Total input cost (Million Tk)</b>	51832.76	58648.20	62947
<b>10.</b>	<b>Gross value added (Million Tk)</b>	21804.25	17919.84	31561
<b>11.</b>	<b>Value added at factor cost (Million Tk)</b>	19214.12	15330.27	29623

	Characteristics	AEIS (Household Manufacturing Industries)		
		1995-96	1996-97	2002-03
12.	Average No of employment per establishment	2.91	3.58	3.81
13.	Average employment cost per estab.('000' Tk.)	21.65	30.80	33.85
14.	Average input cost per estab. ('000' Tk.)	152.58	230.55	221.53
15.	Average value added at factor cost per estab. ('000'Tk.)	56.56	60.26	104.25
16.	Employment cost per person per annum(TK)	7437	8595	33382
17.	Value added at factor cost per person per annum (TK)	19432	16818	27354

# **STATISTICAL TABLES**

## **PART-VI**

### **HOUSEHOLD OTHER THAN MANUFACTURING INDUSTRIES**

## ***Abbreviations and Footnotes Used in the Tables***

### **Abbreviations**

BSIC	Bangladesh Standard Industrial Classification
EQPT	Equipment
NEC	Not Elsewhere Classified
WS	Wholesale
RS	Retail Sale
HH	Household
AGRI	Agriculture
BUSI.	Business
TEXT.	Textile

### **Footnotes**

Detail may not add to total due to independent adjustment and rounding using independent raising factors to the sample data. As a result of this adjustment and subsequent rounding, the totals and subtotals in and between the tables may be slightly different. These differences are, however, small and not statistically significant.

**SUMMARY STATISTICS**  
**HOUSEHOLD OTHER THAN MANUFACTURING**

Key findings of Annual Establishment & Institution Survey (Household Other than Manufacturing Industries) for the year 1995-96, 1996-97 & 2002-03

	Characteristics	AEIS (Household Other than Manufacturing Industries)		
		1995-96	1996-97	2002-03
<b>1.</b>	<b>No. of establishment</b>	185083	189205	137989
<b>2.</b>	<b>No. of establishment by administrative division</b>	185083	189205	137989
	Dhaka	26802	30364	35389
	Chittagong	12858	12648	18016
	Rajshahi	116117	113475	76475
	Khulna	29307	32718	6984
	Barisal			622
	Sylhet			503
<b>3.</b>	<b>Number of person engaged</b>			
	Below 3 person	199330	202359	157498
	3-5 person	20696	17221	7979
	6-9 person	3838	-	-
	10+	4808	4552	-
	Total	228671	224133	165477
<b>4.</b>	<b>Number of person engaged by sex</b>			
	Male	207826	217507	133880
	Female	20845	6626	31596
	Total	228671	224133	165477
<b>5.</b>	<b>Employment cost (Million Tk.)</b>			
	Wages and salary	265.91	158.97	158
	Other cash benefit & Non cash benefit	201.75	94.40	30
	Total Employment cost	467.66	253.37	188
<b>6.</b>	<b>Gross output (Million Tk)</b>	25457.65	17466.76	13079

	Characteristics	AEIS (Household Other than Manufacturing Industries)		
		1995-96	1996-97	2002-03
7.	Industrial cost (Million Tk)	17766.33	11367.58	7716
8.	Non-industrial Cost (Million Tk)	1491.40	431.58	424
9.	Total input cost (Million Tk)	19257.74	11799.15	8140
10.	Gross value added (Million Tk)	7691.31	6099.18	5364
11.	Value added at factor cost(Million Tk)	6053.29	5667.43	4939
12.	Average No of employment per establishment	1.23	1.18	1.20
13.	Average employment cost per estab. ('000')TK	2.52	1.34	1.36
14.	Average input cost per estab. ('000')TK	104.05	62.36	59.00
15.	Average value added at factor cost per estab. ('000')TK	32.71	29.95	35.79
16.	Employment cost per person per annum(TK)	2045.11	1130.47	1135
17.	Value added at factor cost per person per annum (TK)	26472	25286	29848