Report on the Cost of Production of Onion Crop 2009

Updating and Extension of Agriculture Cluster Plots and Survey of Cost of Production Project (UCPSCP)
BANGLADESH BUREAU OF STATISTICS
Statistics Division
Ministry of Planning

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Foreword

Bangladesh is predominantly an agricultural country. The agriculture sector has been dominating the economy of Bangladesh. Food security of the country is critically dependent on the domestic production of crops.

Crop Production has a significant relation to production cost. Every year government declares procurement prices before harvesting time for different crops. UCPSCP Project of Bangladesh Bureau of Statistics has undertaken the survey of 10 crops (6 major crops and 4 minor crops) with an aim to estimate the cost of production.

I am happy to know that the UCPSCP Project performed successfully to conduct these surveys for the first time. I hope that the data presented in the publication would be helpful for the policy formulation and planning process of the country.

I extend my thanks to the Director General, BBS, the Project Director and other officials who worked hard to prepare the report.

Dhaka,
December,2010

Riti Ibrahim

Director General
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Preface

Agriculture is the basic culture of Bangladesh. From the time immemorial, the main source of livelihood of the population of this land is agriculture. It plays an important role in the economic development of the country and has a great contribution to the Gross Domestic Product (GDP).

Crop production largely depends on weather variables such as rainfall, temperature, humidity etc. Moreover, Bangladesh is known as a country of natural calamity in the world. Government is fully aware of natural disaster. Government has been allocating considerable annual budget for the development of agriculture and launching different programmes one after another in order to boost up crop production.

In order to formulate proper policy and planning for the development of agriculture sector reliable and realistic data regarding production cost of crops by different phases such as leasing value of the land, land preparation, seeds/ seedlings, weeding, insecticides, fertilizers, harvesting, drying etc. are needed. Keeping these issues in active consideration, the UCPSCP Project under the control of the Bangladesh Bureau of Statistics (BBS) has been given the responsibility of surveying 10 crops (Aus, Aman, Boro, Jute, Wheat, Potato, Maize, Oil Seeds, Onion and Onion) for the first time for deriving the cost of production of crops by interviewing farmers in field.

I express my deep gratitude to the members of the Technical Committee who rendered technical guidance for the selection of sampling units and finalization of questionnaire for the survey purpose and other survey matters.

I would like to thank all those who are associated in different works of the survey. I take opportunity to convey thanks to Mrs. Salima Sultana, Project Director and other officers and staff members of BBS who worked very sincerely to finalize the report.

Dhaka,
December, 2010.

Md. Shahjahan Ali Mollah

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Key Findings: At a glance

SL. No.	Items of study	Result
1.	Percentage of household having Onion cultivation in the sample area	2.31
2.	Percentages of area under Onion crop by land tenure:	
	a. Own	76.71
	b. Share cropping	10.27
	c. Mortgage	10.27
	d. Lease	2.74
	e. Others	-
3.	Yield of Onion per acre(in kilogram)	2815
4.	Number of labourers employed by component for per acre production of Onion:	
	a. Harvesting	20
	b. Thrashing	14
	Total	34
5.	Number of family labourers worked for per acre Onion production	11
6.	Production cost of Onion per kilogram (in taka)	12.93
7.	Production value of Onion per kilogram (in taka)	20.20
8.	Productivity	1.56
9.	Cost of land preparation per acre (in taka):	2519
10.	Cost of seeds and its related cost per acre (in taka):	15757
11.	Cost of fertilizers by type per acre (in taka):	
	a. Urea	1080
	b. TSP	2329
	c. MoP	1397
	d. Other Cost	319
	Total	**5125**
12.	Cost of insecticides per acre (in taka)	587
13.	Cost of irrigation per acre (in taka)	1522
14.	Cost of weeding per acre (in taka)	3342
15.	Cost of harvesting per acre (in taka)	4472
16.	Cost of thrashing per acre (in taka)	1703

Chapter-I

Introduction

Introduction

Bangladesh is an agricultural country. The most of her inhabitants directly or indirectly are involved in agricultural activities for their livelihood. Agriculture has a great contribution to the Gross Domestic Product (GDP) of the country. Earlier more than 50% of GDP came from this sector. When industrialization starts happening the activities of the population starts diversification towards different sectors. As a result, the contribution of the agriculture sector is slowly reducing and now reached 19% share of GDP. Still agriculture plays vital role and is known as the most important sector of the economy.

Bangladesh by birth possesses very fertile land in which diversified crops grow very easily. Various types of crops are produced in this country. These crops might have been categorized into two-food crops and cash crops. Three types of paddy namely aus, aman and Boro and another cereal crop, wheat are produced in this country, which are called major cereal crops. Other than major crop more than 100 minor crops are also grown. Onion crop is treated as minor crop. Due to increase of area under cereal crops for meeting the increasing demand of food-stuff land under Onion crop has declined and price of Onion has gone up. Mostly supply of Onion in the market is maintained through import from abroad. The government of Bangladesh has, therefore, provided priority to the agriculture sector to increase the production of Onion by giving subsidy to the farmers on different inputs such as fertilizer, irrigation etc. to achieve self sufficiency in Onion.

Poverty cannot be reduced to a desired level excepting increasing productivity of agriculture sector and at the same time it is to be assured that farmers get fair price of the crops. Natural calamity like draught, flood, cyclone, tornado etc. is a very regular phenomenon which hinders the production of agriculture at a great extent. Cultivable land is being decreased due to the pressure of massive population. As a result, food security is being threatened and the risk of poor people is being increased.

Bangladesh government is remarkably concerned about this agriculture sector. Notable portion of annual budget has been consistently been allocating for the last

couple of years for the development of the sector. Government has also been launching many programmes one after another in order to boost up the agriculture production.

Production of crops, cost of production of crops and market price of crops are directly interrelated. Government has to give proper attention on these three factors as stated so that the farmer get fair price of the crop produced during the harvest time. Generaly, Government has to declare procurement price at the harvesting time of the crop so that producer get proper price. Procurement price of the crop has to be fixed considering all these matters. If procurement price is lower than the production cost, producers get looser and discouraged to produce more crops and if procurement price is higher than the production cost, producers get profit and encouragement. This type of loss and profit influences positively or negatively on the cultivation of next year's crops. So, an objective survey is necessary to know the cost of production of crops at farmer's level. And as such this project has been given the responsibility of conducting a survey in this regard.

Onion:

Onion is sown in the months of October to mid December and harvested in the months of April and May.

Acreage & production of Onion.

Table: Acreages and productions of Onion for last ten years.

Year	Acreages in '000'	productions in '000' m.tons
1998-99	82	131
1999-00	84	134
2000-01	84	127
2001-02	91	150
2002-03	93	153
2003-04	128	272
2004-05	213	589
2005-06	286	769
2006-07	318	894
2007-08	309	889

Source: Statistical yearbook of Bangladesh 2008

Gradual increase of acreage and production is due to its high market price. Farmers bought more lands under the crop for price incentive.

1.1 Scope and coverage of the survey:

Survey on the production cost of Onion 2008-09 is a household based survey. Under the purview of this survey the target population was all dwelling households of the sample area. Ten separate surveys for 10 crops like Aus, Aman, Boro, Potato, Jute, Wheat, Maize, Onion, Oilseeds and pulses are conducted following the same sampling design. A target sample of 100 upazilas are selected from 64 districts to capture the rare crops like onion, oilseeds and pulses, where the rest seven crops are believed to be available.

1.2 Objectives of the survey:

The specific objectives of the survey are:

- ►to estimate per acre production cost of Onion.
- ►to estimate per kilogram production cost of Onion

The other objectives of the survey are as follows:

- ► to know the area under Onion by land tenure
- ► to assess the cost of production of Onion by different phase
- ► to produce benchmark data on the production cost of Onion
- ► to assist the policy maker by supplying data on the cost of production of Onion in order to formulate appropriate policies for increasing the production of Onion crop

Chapter- II

Methodology

Methodology

2. 1.Sample Design:

Sample design is the most important aspect of a survey, which strongly affects survey results. An integrated sample design for conducting survey on the cost of production of 10 crops has been developed. Onion is one of the 10 crops. Sample design has been discussed in detail below:

2.1.1 Universe:

Bangladesh as a whole is taken as the universe of the survey.

2.1.2 Sampling Technique:

Multi-stage sampling technique has been followed.

2.1.3 Sampling Frame:

The list of Districts, Upazilas, and the Mauzas, having the particular crop Onion is used as the sampling frame.

2.1.4 Detailed Sample Design:

As this survey is a part of the sample survey on cost of production of 10 crops such as Aman, Aus, Boro, Wheat, Jute, Potato, Maize, Oil Seeds, Pulses and Onion, the sample design for aus crop has been followed the same design as the integrated sample design for the said 10 crops. The sample design has been explained below:

A national sample survey on cost of production of 10 major and minor corps already conducted by the BBS was a complex survey. If the survey had been conducted separately for each crop, it would be very simple and straight forward. But as it had been conducted by a single survey, it became complex. The crops have different acreages ranging from below 1 percent (O.72%) for maize to 35% for Aman crop and they are grown at different times of the crop year. While Aman, Boro and Aus are grown throughout the country, other crops are not grown so widely. Furthermore, cultivation of some minor crops is rare and localized. They grow heavily in some places and do not grow at all in other places of the country. Estimates at sub-national level, say at divisional level, for such minor crops became difficult.

2.1.5 Sample Size Determination

The total acreages and the percentages of acreages of these crops obtained from Sample Survey of Agriculture, 2005 are shown in Statement-I (See Annex- B). The gross cropped area in the country is 299, 90,170 acres as per the Sample Survey of Agriculture, 2005. Using these percentages of acreage of these crops in the country, the minimum sample size for each of these crops is determined in statement-1 applying the following equation which is popularly used for determination of sample size with error and confidence level 95%:

$$n = \frac{pq(1.96)^2}{e^2}$$

Where,

P= Proportion of a crop to total gross cropped area

q=1-p

e= Error level (5% error level is used in this case)

If the survey was conducted for each crop separately drawing the sample from the national frame of the crop all over the country, the sample size (n) as shown in statement-1 would be sufficient to provide cost estimate of the crop with 95% confidence level for the country as a whole. But if divisional estimate is necessary for the crops, n should be 6 times more than the national estimate as given in the statement to conduct the survey for the crop at divisional level. If the samples are drawn independently for each crop then they are likely to be distributed in many Upazilas all over the country resulting higher cost for both increasing man power and traveling distance. With the objective of reducing cost of the survey, the sample is drawn for one crop namely, oil seeds which is distributed almost throughout the country, where n=103. The minimum sample number required for all divisions is (103 X 6) 618 farms growing oil seeds.

2.16 Selection Procedure

If divisional estimates are required for all crops, it is pre-determined that primary sampling units (PSUs) i.e. Upazilas should be selected from 64 districts. It is also decided that at least 100 Mouzas/Eas (Enumeration Area) as Secondary Sampling Units should be selected from 64 districts. The selected Mouzas/EAs will consist of about 250 households. The farm households growing the particular crop are the ultimate sampling unit in the survey. All farm households growing the particular crop in the selected Mouzas/EAs have been interviewed in the survey.

A total of 100 Upazilas have been selected randomly from 64 districts. At first 64 Upazilas having minor crop oil seeds are selected from 64 districts and then the remaining 36 Upazilas have been selected from the districts having higher number of Upazilas growing the particular crops excluding Chittagong hill districts. One Mouza/EA have been selected from each of the 100 selected Upazilas having the highest acreage of the particular crop (oil seeds) and the selection has been made at the Upazila headquarter since the sampling frame of Mouza having a particular crop is available at the Upazila level. These 100 upazilas have been used for all other 9 crops and the same Mouzas/EAs selected for minor crops such as oil seeds are taken as the sample Mouza/EAs. All the farm households with 0.05 acres of land growing these crops in the selected mouza/EA have been interviewed in the survey. The expected number of farm households that might have been interviewed for each of these crops is shown in Statement-I (see annexure- B).

2.2. Data Collection and its whole process

As data collection has a noteworthy impact on the quality of survey results, it is treated as a significant part of survey. Considering its importance, the following measures have been taken during the preparation of questionnaire as the tool of data collection:

- Brain-storming activity has been carried out by the members responsible for developing the questionnaire going to the field again and again in order to

design a good questionnaire. They have thoroughly discussed most of the issues relating to the production and the cost of production of Pulses with the farmer.

- Questionnaire has been pre-tested;
- Comprehensive manual of data collection with clearly defined concepts and definitions have been made;
- Training programme for the enumerators and supervisors has been conducted;
- Required number of enumerator in order to ensure smooth data collection has been set up;
- To take extra-care to the data collection activity, sufficient number of supervisors has been occupied.

2.2.1 Questionnaire Design:

A questionnaire is a powerful evaluation tool that allows the collection of data through the use of multi-dimensional questions. A questionnaire written without a clear goal and purpose is inevitably going to overlook important issues and waste enumerators' as well as respondents' time by asking and responding useless questions. All these matters have been tried to address to the extent possible in case of developing the questionnaire for this survey.

2.2.2 Process of questionnaire design

A sub-committee comprising of eight members- all from the different Wings of Bangladesh Bureau of Statistics (BBS) – have been formed in order to facilitate the questionnaire development activity. Project Director, Advisor and some other members of the sub-committee have paid several visits to the field with a view to being acknowledged what are the factors of production and the pros and cons of the whole process of the production of Pulses as well. They discuss the matter with the farmers who grow Pulses. After having the knowledge on the issue, they have placed the feedback to the meeting of the sub-committee. Sub-committee have thoroughly examined the feedback and selected the topics of the survey. Project Director and Advisor have been assigned to form a questionnaire on the selected topics and

eventually, they have developed a questionnaire with seven questions. Subsequently the questionnaire has been brought forward to the Technical Committee, the highest statistical body, which has finally approved the questionnaire.

2.2.3 Pre-testing the questionnaire

The questionnaire has been pre-tested to examine the time necessitated to complete the interview, test the reliability i.e. whether it capture the information desired, and also investigate the consistency whether the information gathered by it is related to the whole purpose of the survey. The test has also been targeted to check the logistics required for successful operation of the survey.

In order to ensure the best performance of the questionnaire in respect of data collection, processing and analyzing, the pre-testing has been carried out almost two months before the survey at rural area of Tangail District and Savar- an Upzila belonging to Dhaka district. A group including Project Director, Advisor, some members of the sub-committee had gone to the mentioned two places to take part in testing the questionnaire. They have chosen some of the farmer at random as the respondent. The farmers have helped the team cordially and wanted to know whether they would be benefited in any way. However it was a very successful programme.

2.2.4 Findings of the Pre-test

Depending on the findings of the pretest, modifications to the questionnaire have been made in the structure and wording of the questionnaire. It has also taken care of semblance of the question, that is, the meaning and clarity which yields the intended information from the respondent. Furthermore, considerable amendment has also taken place in the enumerator's manual in view of ensuring proper questionnaire administration.

After pre-testing some significant suggestions from the respective team have been made, which had been eventually adopted properly in the final questionnaire. During the pre-test, it has been found that farmers, the respondents do not feel comfortable to respond to the questions relating to the total area of the land under Pulses crop as they

have cultivated it in many plots. Considering the fact, the structure of the questionnaire significantly changed. Deleting the aggregate area in a single row, the new concept, area by plot in seven rows has been incorporated.

2.2.5 Finalization of the Questionnaire

After addressing all the changes following the recommendations evolved from the pre-test, the questionnaire has been placed to the Technical Committee. The committee also put notable contribution to the questionnaire. Eventually, the questionnaire has been finalized by the approval of the Technical Committee.

2.2.6 Data collection:

Training of the Master Trainers (Division and Regional Coordinator) and Enumerators: Training has been arranged in two phases in order to make the master trainers and enumerators perfectly conceptualized with the concepts and definitions of each word of the questionnaire as well as to convey the proper way of data collection. At the first stage, two days training programme conducted by the Project Director and Advisor has been arranged at the head office of BBS in Dhaka. At the first day the participants receive rigorous training on the concepts, definitions and the questionnaire and in the next day they have gone to the rural area of Savar Upzila with a view to having hands-on exercise on the questionnaire. In the second phase, enumerators have been trained for two days by the master trainers at the Regional Statistical Offices (RSOs) following the same sequence as the training arranged at the first phase. At first, enumerators receive training on the questionnaire and in the next day they also visit field at remote area of the respective region in order to have experience on hand. However, most of the trainees- both master trainers and enumerators- actively participated in the training and also made some suggestions which were subsequently taken into consideration.

2.2.7 Method of Data Collection: Face to face interview has been carried out following Paper and Pencil (PAPI) method.

2.2.8 Data Collection and Supervision: Data collection has been taken place during May 2009 at the homestead of the household. Usually the respondents are the head of household. The total of 100 enumerators, who are the employees of BBS and have proven experience in this field, have been engaged in data collection from the household and the total of 28 supervising officer named Regional Coordinators are responsible for supervising the data collection task. All supervising officers have been directed to stay at the respective region during the period of data collection so that they can extensively supervise data collection task and address instantly any untoward problem arising during data collection. Three divisional coordinators including Project Director are also responsible to oversee all activities at field level relating to data collection. Furthermore, all possible measures have been taken to have a good quality of data.

2.2.9 Data Editing and Coding:

Data editing and coding are another vital phases of the survey, which is indispensable for data processing. It should be completed before data processing. In case of this survey coding has been done along with questionnaire development so that the enumerator can easily and accurately mark the right answers.

Data editing refers the activity of checking and cleaning data that have already been collected from the field. A group of experienced staff from Agriculture Wing under the supervision of two officers from the same wing have carried out the work of data editing with careful attention.

2.3 Data Processing:

Data processing involves many steps that are very important because it affects survey results very badly. During data processing following steps have been followed.

- Data entry
- Appending and Merging files
- Data validation (further checking, editing, and imputation)
- Final decision on errors

- ❖ Completion of data processing and generation of data files
- ❖ Final documentations
- ❖ Conversion of data files to another software.
- ❖ Storage of all files

Data Entry:

1. Software Used: Five software named CSPro, Foxpro, Oracle (SQL), SPSS and Excel have been used for processing the survey data. CSPro have been used for data entry, Foxpro also for editing, Oracle for tabulation, SPSS for data analysis and Excel for printing output.

2. Designing Data Entry Application: The first thing to do was to create the data dictionary based on the questionnaire. The data dictionary has consisted of ID items, records, items of the records, and also values of the items. Logic check has also maintained to avoid errors of inconsistency. After finishing the data dictionary, the data entry forms have been developed depending on data dictionary. After that, the data entry form are tested and, therefore, readily available for use.

3. Data capturing and Preliminary Validation

Just after the completion of data editing manually, data have been captured in computer. During data capturing, a variety of common errors have been identified. As a result data have been checked and cross checked with questionnaire depending on error message. During data processing, the appropriate corrective methodologies mentioned below have been used to ensure clean data.

- **Wrong data and out of range codes:** Firstly, the data collection instrument restricts the enumerator to a set of codes within the acceptable range for most of the questions. Secondly, the values have been set for avoiding wild codes for most of the questions. For example, the code for ownership of land has been set 1 to 5.
- **Inconsistency checking:** It has been done during designing the data entry program to avoid errors and inconsistency.

- **Treatment of Missing values:** The data entry program has been designed not to allow blanks that ensure not having missing values in the data.
- **Incomplete records and dropped cases.** The data entry program has designed to accept the complete data case; otherwise, it would not be saved. This has been set to avoid incomplete records and dropped cases.
- **Duplication of entries.** The data entry program has been designed in view of rejecting duplication of entries based on the identifiers.

4. Appending and Merging files: After data entry, files have properly been appended and merged in order to bring all data in a single file.

5. Data Validation: Validation has been accomplished after appending and merging files by checking the number of variables, the cases, wild codes, missing value and consistency. It has also done to make sure that the number of variables generated matched with the number of variables in the data set.

6. **Final decision on errors:** If there has been found any error during data validation, it is checked and rechecked; and sometimes it has been sent back to the survey authority to decide how it would be treated.

7. Completion of data processing and generation of data file: Addressing the final decision on error, data processing task have been completed and generated a data file which contains micro data.

8. Data preservation: After completion of processing, data have been stored in ASCII format. The data have also been converted to Microsoft Excel format in order to have the print out. Both original and new format have been preserved. The questionnaires have also filed for safe storage. A copy of the data set put forward to the survey authority for tabulation and analysis.

2.4 Tabulation:

Twelve tables focusing on the vital components such as total number of labours engaged in production of Onion, cost of land preparation, seeds used and their price, fertilizer used and their price, cost of insecticides, cost of production by phases etc.

have been generated. All these tables have been given at the part of analysis and annexure.

2.5 Data Analysis and Dissemination:

Survey results have been analyzed in tabular form. Major variable is explained vertically (columns) and cross tabulation by another related variable(s) horizontally. In the analysis, it has been described the variation of the magnitude of the major variables by division. Many aspects of production and the cost of production of Onion have also been explained nationally.

The final report has been disseminated both in electronic form and hard copy as book. Results are available in the website of BBS. Some data may also be published in other publications of BBS such as Statistical Year Book of Bangladesh, Year Book of Agriculture Statistics of Bangladesh, and Monthly Statistical Bulletin etc.

Chapter-III

Statistical Findings

Statistical Findings

Various components are used in different stages of growing a crop from sowing to harvesting . This chapter deals with cost related components of production of Onion crop. The components involved are i) land tenure ship such as own, share cropping, mortgage, lease and others, ii) labourers employed by phase such as land preparation, sowing, weeding, harvesting etc iii) use of seeds , fertilizers, pesticides, irrigation etc. iv) Production cost and v) Productivity etc.

3.1. Onion producing households (HHs) in the sample area:

24625 sample households (HHs) were under the survey purview across the country, of which only 570 HHs were involved in Onion cultivation. The table reveals that only 2.31% of HHs at national level cultivated Onion indicating that a small number of farmers grow the crop in the country.

Table-3.1: Total number of PSU, SSU,USU(HH) & number of households producing Onion crop.

Division	Total Number				
	PSU	SSU	USU(HH)	HH producing Onion	% of HH producing Onion
Barisal	9	9	2250	5	0.22
Chittagang	16	16	3625	24	0.66
Dhaka	25	25	6250	276	4.42
Khulna	16	16	4000	106	2.65
Rajshahi	28	28	7000	156	2.23
Sylhet	6	6	1500	3	0.20
Bangladesh	100	100	24625	570	2.31

Onions are sown in small areas. It is seen from the table that the highest 4.42% household grow Onion in Dhaka division followed by Khulna (2.65%) and Rajshahi (2.23%). Barisal division and Chittagang division also show only 0.22% and 0.66% respectively which are far below the national average (2.31%).

3.2. Area under Sample:

Out of 24635 households surveyed, 146 acres of land are recorded under Onion.

Table-3.2 Area (acres) under Onion as recorded in the sample area by division:

Division	Areas(acres)	Percentage(%)
Barisal	1	0.68
Chittagong	4	2.74
Dhaka	90	61.64
Khulna	23	15.75
Rajshahi	29	19.86
Sylhet	1	0.68
Bangladesh	146	100

Out of total area of 146 acres under Onion, 90 acres belong to Dhaka division. which covers 61.64% of the total area. Khulna and Rajshahi divisions register 15.75% and 19.86% of total acres respectively under the crop. Area (in acres) under Onion are shown in the bar diagram below.

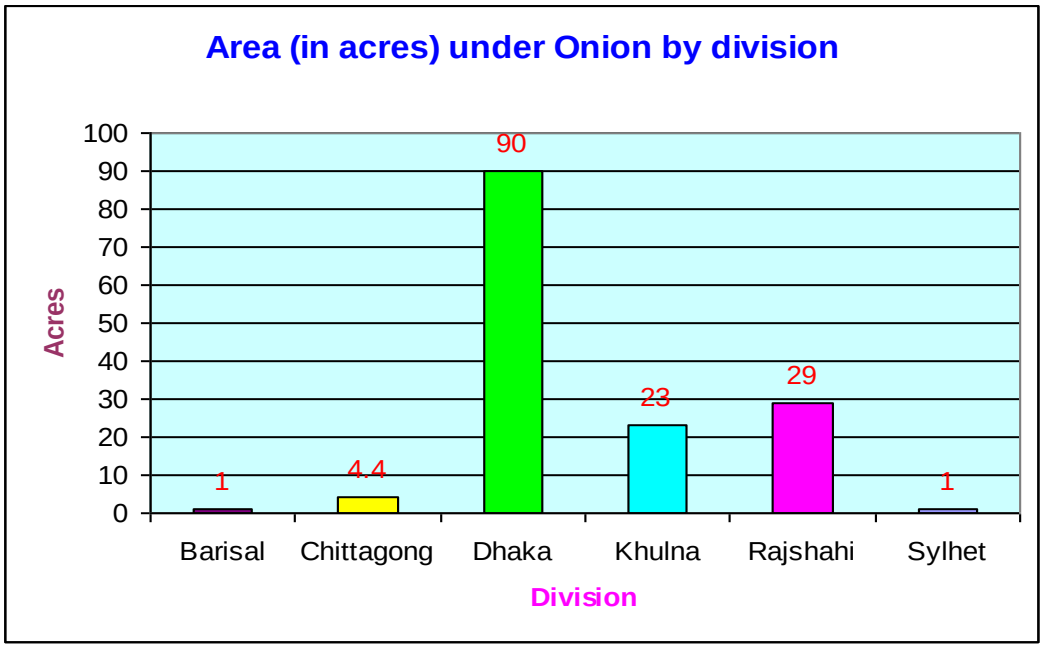

Table-3.3. Area (acres) under Onion as recorded in the sample area by division and by size of land planted.

Size of land planted (Acres)	Division						Total
	Barisal	Chittagang	Dhaka	Khulna	Rajshahi	Sylhet	
<= 0.04	0	0	1	0	1	0	2
0.05 - 0.49	1	3	42	16	21	0	82
0.50 - 0.99	0	1	14	7	5	0	26
1.00 - 1.49	0	0	15	0	2	0	17
1.50 - 2.49	0	0	18	0	0	0	18
2.50 - 4.99	0	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0	0
Total	1	4	90	23	29	0	146

In the sample area of 24625 HHs across the country, only 146 acres are under Onion cultivation. Maximum area are found in Dhaka division (90 acres) followed by Rajshahi (29acres), Khulna (23 acres) and Chittagang (4 acres). In Sylhet, no cultivation of Onion is noticed within the sample area. If the figures are analyzed, the highest planted area of crop 82 acres are seen in the size of land planted 0.05-0.49 acres and it represents 56% of the total area. Mostly Onion is cultivated in small pieces of land. And the picture is quite clear in all divisions as the cultivation is limited to size of 1.50-2.49 acres.

Table-3.4. Number of HHs by tenureship and by size of land planted.

Size of land planted (acres)	Number of HH by tenure ship					Total
	Own	Share	Mortgage	Lease	others	
<= 0.04	66	0	0	2	0	68
0.05 – 0.49	342	53	33	8	2	438
0.50 – 0.99	27	5	7	2	0	41
1.00 – 1.49	14	0	1	0	0	15
1.50 – 2.49	8	0	1	0	0	9
2.50 – 4.99	0	0	0	0	0	0
5.00 – 7.49	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0
Total	457	58	42	12	2	570

Table-3.5. Area in acres under Onion crop by type of land tenureship and by size of land planted.

Size of land planted	Tenure ship					Total
	Own	Share	Mortgage	Lease	others	total
<= 0.04	2	0	0	0	0	2
0.05 - 0.49	61	12	8	2	0	82
0.50 - 0.99	17	3	4	2	0	26
1.00 - 1.49	16	0	1	0	0	17
1.50 - 2.49	16	0	2	0	0	18
2.50 - 4.99	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0
Total	112	15	15	4	0	146
Percentage	76.71	10.27	10.27	2.74	0	100

It is noticed from the table that out of total land planted (146 acres) under Onion, 112 acres covers under own type of land, which represents 77% of the total; 23% of the

total area are covered under other three types of land namely share cropping, mortgage and lease. Cultivation of the crops with all types of land tenure ship separately and combined are shown in the table. Out of 146 acres Planted under the crop, maximum 82 acres belong to the class internal of 0.05-0.49 acres which are shared by all types of land tenureship. Percentages of total areas under Onion are shown in the Pi-chart below:

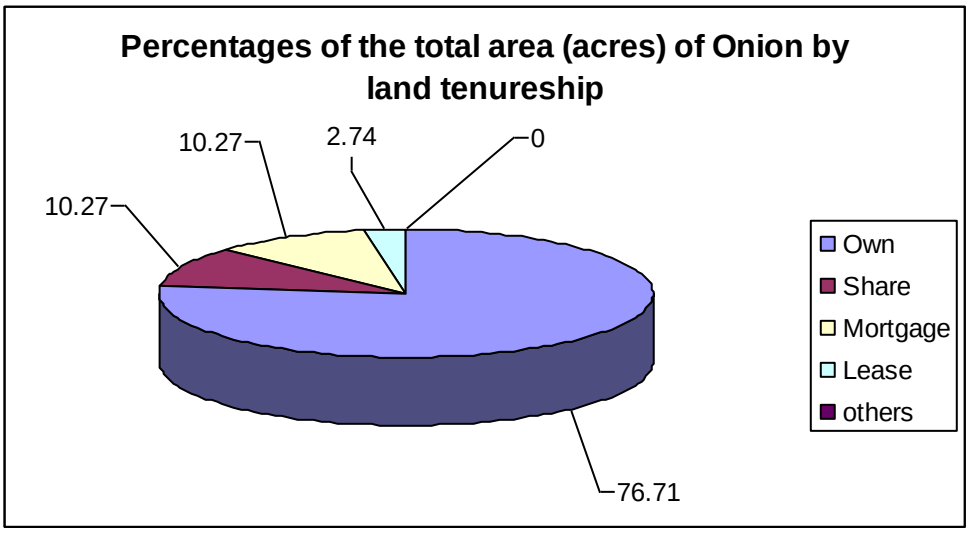

Table-3.6. Number of Plots by division and by size of land planted.

Size of land planted (acres)	Division						Total
	Barisal	Chittagang	Dhaka	Khulna	Rajshahi	Sylhet	
<= 0.04	2	4	32	2	27	1	68
0.05 - 0.49	3	19	203	93	117	2	437
0.50 - 0.99	0	1	20	11	9	0	41
1.00 - 1.49	0	0	13	0	2	0	15
1.50 - 2.49	0	0	9	0	0	0	9
2.50 - 4.99	0	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0	0
Total	5	24	278	106	155	3	570

Total number of plots under Onion cultivation has been recorded 570 irrespective of size. Maximum number of plots are seen in Dhaka division(278), followed by Rajshahi division (155) and Khulna (106). The highest number of plots(76.7%) in all the divisions are noticed in the size of land planted 0.05-0.49 acres.

3.7. Land preparation:

Land is prepared first by tilling either by power tiller or by country plough for the sowing of seeds. The costs involved in it are displayed in the table below.

Table-3.7. Per acre land preparation cost of Onion crop by size of land planted and by means.

(Fig in Tk)

Size of land planted (acres)	Plough	Power tiller	Others	Total
<= 0.04	-	1860	413	2616
0.05 - 0.49	-	1996	388	2657
0.50 - 0.99	343	1986	224	2421
1.00 - 1.49	273	1868	401	2372
1.50 - 2.49	211	1879	289	2168
2.50 - 4.99	103	-	-	-
5.00 - 7.49	-	-	-	-
7.50 +	-	-	-	-
Total	311	1860	348	2519

The table discloses that per acre total land preparation cost is Tk. 2519. The cost varies from Tk. 2168 to Tk. 2657. Maximum cost is found in case of smaller size of land planted i.e <=0.04 and 0.05-0.49 acres. Here other means sometimes farmers prepare their lands by spades.

Maximum land preparation cost is found in power tiller (Tk 1860) others and plough cost for less.

3.8. Seeds:

Seeds are sown after the preparation of lands.

Per acre cost of seeds, seed bed, Plucking, Planting & others are furnished in the table below by size of land planted.

Table-3.8. Per acre seed, seed bed, Plucking Planting & others. cost by size of land planted of Onion,2009

(Fig in Tk)

Size of land planted(acres)	Seed	Seed bed	Plucking	Planting	Others	Total
<= 0.04	11183	400	750	3208	328	15870
0.05 - 0.49	10234	575	675	3541	352	15376
0.50 - 0.99	10204	590	888	3720	339	15742
1.00 - 1.49	10549	500	735	3716	349	15849
1.50 - 2.49	10856	502	715	3587	340	16000
2.50 - 4.99	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0
Total	10569	574	701	3563	350	15757

Onions are sown in 3 ways. Sometimes small Onions are directly planted; sometimes Onion seeds are broadcast and sometimes seed beds are prepared and small seedlings are transplanted in other lands.

It is observed from the table that total cost of seeds, seed-bed preparation, plucking, planting and others for one acre plantation of Onion crop stands at Tk. 15757. Onion seeds are very much expensive and per acre cost is Tk. 10569.Planting of seedlings needs labourers and wages of labourers for this purpose is recorded as Tk. 3563. Wages of labourers for seed-bed preparation and plucking are Tk.574 and Tk. 701 respectively. Some additional helping labourers are required for these purposes in different stages and its cost is included in others column (Tk.350).

3.9. Fertilizer:

For well growth of the crop both organic and inorganic fertilizers are used. The table shown below is the per acre cost of fertilizer used.

Table-3.9. Per acre quantity of fertilizer used (K.G.) and value of Onion by size of land planted crop

Size of land planted (acres)	Urea		TSP		MP		Others TK	Total TK
	Qty (Kg)	value Tk	Qty (Kg)	value Tk	Qty (Kg)	value Tk		
<= 0.04	81	1049	43	2630	39	1273	315	5267
0.05 - 0.49	81	1090	43	2344	39	1497	316	5247
0.50 - 0.99	83	1106	45	2408	38	1390	308	5211
1.00 - 1.49	84	1015	44	2207	35	1056	311	4589
1.50 - 2.49	79	1032	43	2163	37	1118	368	4682
2.50 - 4.99	0	0	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0	0	0
Total	81	1080	43	2329	38	1397	319	5125

The table shows that per acre expenditure of fertilizer in Tk. 5125 (Urea-Tk.1080, TSP-Tk. 2329, MP-Tk. 1317 and others Tk.319). The table further discloses that per acre quantity of fertilizer used are-Urea-81 Kg.,TSP-43 Kg. and MoP 38 Kg.. For smaller size of land planted, the cost is found to be higher which is approximately Tk. 5300.

3.10. Weeding, Insecticide/ Pesticides and Irrigation:

During the growth of the plants weeding and intercultural practices are done. At the growing stage of the crop the plants demands irrigation. Green plants are sometimes attacked by insects/pests. Per acre costs of these components are shown below.

Table-3.10. Per acre weeding, insecticide and irrigation cost by size of land planted of Onion.

(Fig in Tk)

Size 0f land planted(acres)	Weeding	Insecticide	Irrigation	Total
<= 0.04	3581	517	1506	5605
0.05 - 0.49	3372	597	1719	5689
0.50 - 0.99	3239	592	1628	5458
1.00 - 1.49	3259	508	1564	5331
1.50 - 2.49	3392	598	0	3989
2.50 - 4.99	0	0	0	0
5.00 - 7.49	0	0	0	0
7.50 +	0	0	0	0
Total	3342	587	1522	5451

Weeding with intercultural practices is needed for well growth of the crop. Per acre cost of weeding is registered Tk. 3342. Weeding cost is noticed to be high (Tk. 3581) for the size of land planted <=0.04 acres, comparing to national figure. Weeding cost varies from Tk 3239 to Tk 3581.Sometimes the crop is attacked by pest and naturally pesticides is applied. Per acre cost of pesticides applied is recorded as Tk. 587.To get a good harvest irrigation is required and per acre cost of irrigation for the crop is registered as Tk. 1522.

3.11. Labourer:

Table-3.11. Per acre different types of number of labourers engaged in kolly (Flower) cutting of Onion crop by size of land planted.

Size of land planted(acres)	Number of labourer			Total cost (Tk)
	Family	Hired	Total	
<= 0.04	6	0	6	279
0.05 - 0.49	2	1	3	269
0.50 - 0.99	1	1	2	274
1.00 - 1.49	1	1	2	283
1.50 - 2.49	1	1	2	277
2.50 - 4.99	0	0	0	0
5.00 - 7.49	0	0	0	0
7.50 +	0	0	0	0
Total	2	1	3	272

Onion kolly is used as vegetables. Total cost of kolly cutting per acre is seen to be Tk. 272. For all sizes of land planted the figure varies from Tk. 269 to Tk. 283. Total number of labourers for this purpose is 3 (Family 2, hired 1).

Table-3.12: Per acre different type of labourers engaged in harvesting by size of land planted.

Size of land Planted (acres)	Harvesting				Others cost (Tk)	Total (TK)
	Labour			Cost (Tk)		
	Family	Hired	Total			
<= 0.04	20	2	22	2209	250	4530
0.05 - 0.49	10	11	21	2316	260	4545
0.50 - 0.99	6	12	18	2135	222	4282
1.00 - 1.49	7	14	21	2157	244	4403
1.50 - 2.49	6	10	16	2119	217	4404
2.50 - 4.99	0	0	0	0	0	0
5.00 - 7.49	0	0	0	0	0	0
7.50 +	0	0	0	0	0	0
Total	9	11	20	2249	248	4472

Per acre expenditure of harvesting of the crop is Tk. 4472. Number of labourers required for harvesting one acre crop is recorded as 20 (Family 9 and hired 11) and its cost is Tk. 2249. Others cost is Tk. 248. Here others mean some additional helping labourers needed for cutting of kolly, leaves and harvesting.

Table-3.13: Per acre different type of labourers engaged in leaf cutting by size of land Planted

Size of land planted (acres)	Number of labourer			Total cost (TK)
	Family	Hired	Total	
<= 0.04	16	1	17	1792
0.05 - 0.49	10	5	15	1700
0.50 - 0.99	7	7	14	1651
1.00 - 1.49	7	5	12	1719
1.50 - 2.49	5	9	14	1791
2.50 - 4.99	0	0	0	0
5.00 - 7.49	0	0	0	0
7.50 +	0	0	0	0
Total	9	5	14	1703

Just after harvesting leaves are cut and cleaned. Total cost of leaf cutting per acre is observed Tk. 1703 and it ranges from Tk. 1651 to Tk. 1792. Per acre number of labourers engaged in leaf cutting is 14 (Family 9, hired 5).

3.14. Per acre production (in kilograms):

Per acre production (in kilograms) of Kolly (Flower) and Onion by size of land planted are shown as under.

Table-3.14. Per acre production by size of land planted of Onion

Size of land planted (acres)	Kolly(Flower)		Onion		Total
	Kilograms	Value(TK)	Kilograms	Value(TK)	TK
<= 0.04	40	184	2727	56109	56293
0.05 – 0.49	32	169	2828	55515	55684
0.50 – 0.99	32	153	2842	57707	57860
1.00 – 1.49	36	145	2725	60898	61043
1.50 – 2.49	39	155	2782	58664	58819
2.50 – 4.99	0	0	0	0	0
5.00 – 7.49	0	0	0	0	0
7.50 +	0	0	0	0	0
Total	38	163	2815	56714	56877

It reveals from the table that per acre production of kolly and Onion are 38. and 2815 Kg. respectively. At farmgate per acre production price of kolly is Tk.. 163 and of Onion Tk. 56714. Combined per acre production value of kolly and Onion is Tk.56877.

3.15. Production cost:

Per acre production cost is the sum total of the costs of all inputs and all labourers involved/ engaged in different stages of the crop. It is to be mentioned here that due to non-response from the most farmers about the leasing value of the land (land rental value) for the cultivation of Onion, it has not been possible to show per acre leasing value. In the table shown under per acre production cost of Onion is furnished.

Table-3.15. Per acre production cost of Onion crop by component and by size of land planted

Size of land planted (acres)	Per acre production cost(in Tk)								
	Land preparation	Seed related	Irrigation	Insecticide	weeding	fertilizer	Kolly & leaf cutting	Harvesting & others	Total
<= 0.04	2616	15870	2317	517	3581	5267	1071	4530	35769
0.05 - 0.49	2657	15376	2725	597	3372	5247	1969	4545	36488
0.50 - 0.99	2421	15742	2568	592	3239	5211	1925	4282	35980
1.00 - 1.49	2372	15849	2304	508	3259	4589	2002	4403	35286
1.50 - 2.49	2168	16000	2000	598	3392	4682	2068	4404	35312
2.50 - 4.99	-	-	-	-	-	-	-	-	-
5.00 - 7.49	-	-	-	-	-	-	-	-	-
7.50 +	-	-	-	-	-	-	-	-	-
Total	2519	15757	2620	587	3342	5125	1977	4472	36399
Percentage	6.92	43.29	7.20	1.61	9.18	14.08	5.43	12.29	100

Per acre production cost of Onion is recorded Tk. 36399. The costs are almost same for all 8 sizes of land planted and variations in costs are found minimam. Maximum cost is spent for seeds(43.29%) followed by fertilizer (14.08%) and harvesting (12.29%). Percentages of per acre major head wise production cost (in Tk) of Onion are shown in the Pi-chart below.

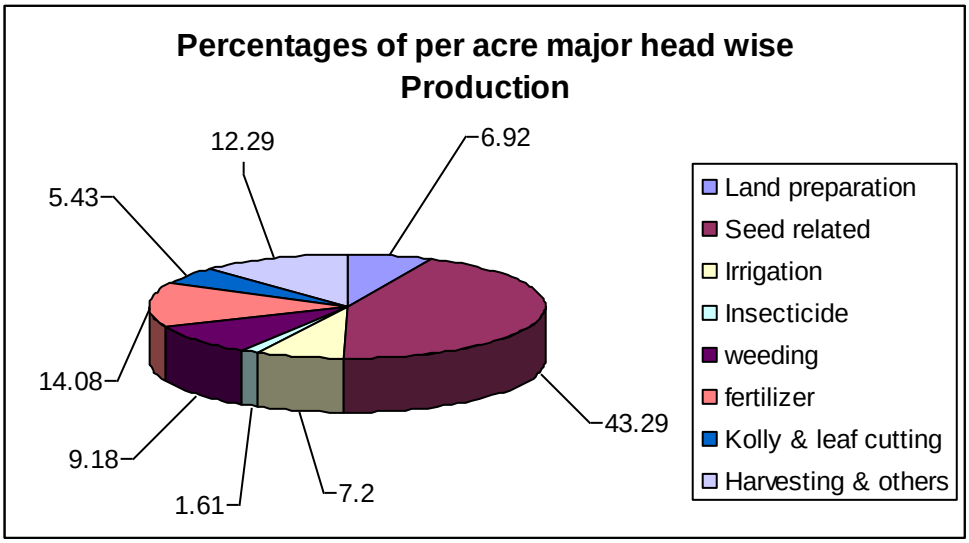

Table-3.16. Per acre production value of kolly and Onion by size of land planted.

Size of land planted	Per acre production value		
	Kolly(Flower)	Onion	Total
<= 0.04	184	56109	56293
0.05 - 0.49	169	55515	55684
0.50 - 0.99	153	57707	57860
1.00 - 1.49	145	60898	61043
1.50 - 2.49	155	58664	58819
2.50 - 4.99	0	0	0
5.00 - 7.49	0	0	0
7.50 +	0	0	0
Total	163	56714	56877

Table-3.17: Per kilogram(Kg.) production cost and production value of Onion.

Crop	Per Kg.	
	Production cost (in Tk.)	Production value (in Tk.)
Onion	12.93	20.20

3.18. Productivity:

Where production value is higher than production cost it means the producer gets some profit from the produce and being encouraged the producer will continue to produce the item. Sometimes opposite picture is seen and the producer will stop to produce the item. Here a complete positive picture is exposed which is displayed below.

Table:-3.18: Per acre productivity of Onion

Crop	Per acre		Productivity
	Production cost (in Tk)	Production value (in Tk)	
Onion	36399	56877	1.56

The table discloses that per acre productivity of Onion is 1.56 which means production value is more than production cost. Productivity exposes that farmers get profit in producing the crop.

3.19 Sampling error and data reliability

Using the random group method the estimated variance of R has the following form

$$\text{Var®} = \frac{\sum_{g=1} (R_g - R)^2}{K(K-1)}$$

Where: R= the estimated average cost (land preparation /Seed, pesticide, weeding & irrigation /fertilizer/harvesting & others)

R_g= the estimated mean for the g^{th} random group

K = the number of random group

Table-3.19(a): Estimated average production cost (excluding leasing) per kg for the 2008-09 onion and their standard errors.

Items	Total		Land preparation		Seed, pesticide, weeding & irrigation		Fertilizer		Harvesting & others	
	Cost	S.E	Cost	S.E	Cost	S.E	Cost	S.E	Cost	S.E
Kg	12.93	0.03864	0.89	0.00657	8.63	0.03980	1.82	0.01595	1.59	0.01121
Decimal	364	1.42772	25	0.59753	243	1.25149	51	0.74980	45	0.56447

From the above table the average production cost per kg for onion is 12.93 taka and their standard error is 0.03864. Similarly the average production cost per decimal for onion is 364 taka and their standard error is 1.42772. The standard error of onion per decimal is 1.42772 due to low representation in the sample.

Annexure-A

Concepts and Definitions

Mauza:

Mauza is the demarcated lowest administrative territorial unit having separate jurisdiction list number (J.L.No.) in the revenue records. Every mauza has its well demarcated cadastral map. Mauza should be distinguished from local village since a mauza may consist of one or more villages or part of a village.

Primary Sampling Units (PSUs):

100 Upzilas which have been selected at random from 64 districts are said to be PSUs.

Secondary Sampling Units (SSUs):

100 Mauzas which have been selected from 100 PSUs are said to be SSUs.

Ultimate Sampling Units (USUs):

250 households which have been selected from SSUs following the method of choosing the first one from the south-west corner of the SSU and then moving forwards following serpentine method until having 250 households are said to be USUs.

Enumeration Areas (EAs):

EAs are nothing but the SSUs.

Household (HH):

A household means a group of persons normally living together and eating in one mess (i.e. with common arrangement of cooking) with their dependents, relatives, servants etc. A household may be a one person household or a multi-person household. In other words, when a group of persons living together generally maintain a family or family like relations and take meals from the same kitchen is termed as a household. Popularly, it is descried as “Khana”. In some cases there may be more than

one household in a single house or in one dwelling arrangement. Similarly, a household may have more than one house or structure or shed.

The household must be distinguished from a family which consists of blood related members who may live in different places but members of the household must share the same kitchen and live together.

Owned land:

Owned land means the area of the land owned by the holder including members of his family having a title of land with the right to determine the nature and extent of its use and to transfer the same. Moreover, there might be some land over which the holder or any member of his households has owner-like possession. This type of land was included in the area of owned land. The land held by the holder in owner like possession, can be operated by him in the same way as owned land although the holder does not possess a title of ownership.

Share Cropping:

Land under share cropping is treated as the land which is cultivated under the condition of sharing the crops between land owner and the cultivator. The ratio of share cropping might vary from place to place. It might be one third (1/3) or half (1/2) or one two-thirds (2/3) between owner and cultivator.

Mortgage:

The land which is taken in exchange of money paid by the mortgagee to the land owner for a fixed period of time under the condition that land would be released upon refunding the money to the mortgagee by the owner is considered as the land under mortgage.

Lease:

The land which is taken by the cultivator from the owner in exchange of a certain amount of money for one year or for any period of time for the purpose of cultivating crop is treated as land under lease. Under this criterion, land will automatically be released from the occupancy of the cultivator after the certain period of time.

Others:

The land which does not satisfy any of the four criterions mentioned earlier is treated as the land under others.

Plot:

Usually land is divided into many pieces for the purposes of cultivation or distributions among the owners of land or making houses. These pieces are commonly called plots. A plot might comprise of land under many identification numbers (Dag Number) or there might have many plots under the land of single identification number. Even a household has many plots which are situated in different mauzas. It is mentionable that under this survey plot means the land in which Onion has been cultivated during the survey year.

Annexure- B

Statement-I

Crop	2005Cropped area (acres)	Cropping percent (p)	Minimum Sample size (n)	All farmers in the Mouza(n1)
Amon (4)	10488754	35.00	612	9625
Boro (3)	9272497	30.90	575	8498
Aus (2)	2670787	8.90	220	2448
Wheat	897403	2.99	78	823
Maize	217060	0.72	19	198
Pulses (10)	700651	2.34	60	644
Oil Seeds (12)	1217233	4.06	103	1116
Jute (3)	1117109	3.72	96	1023
Potato	811061	2.70	71	742
Onion	265136	0.88	23	242
Total			1857	25358

Gross cropped area – 2,99,90,170 acres

Annexure- c

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
বাংলাদেশ পরিসংখ্যান ব্যুরো
কৃষি দাগগুচ্ছ হালনাগাদকরণ ও সম্প্রসারণ এবং উৎপাদন খরচ জরিপ প্রকল্প
পরিসংখ্যান ভবন (৭ম তলা, ব- ক-২)
ই-২৭/এ, আগারগাঁও, ঢাকা-১২০৭।

পেঁয়াজ উৎপাদন খরচ জরিপ, ২০০৯

প্রথম অংশ

খানার পরিচিতি

খানার ক্রমিক নম্বর ঃ ☐☐☐

খানা প্রধানের নাম ঃ ----------পিতা/স্বামীর নাম ঃ ----------

জেলা _____ কোড ☐☐ উপজেলা _____ কোড ☐☐

ইউনিয়ন _____ কোড ☐☐ মৌজা/গ্রাম _____ কোড ☐☐☐

দ্বিতীয় অংশ

১। পেঁয়াজের প্রকার ভেদে জমির খন্ডের পরিমাণ, মালিকানা, চাষের ধরন এবং খরচ (টাকা)

খন্ড	পেঁয়াজের প্রকার (কোড)	জমির পরিমাণ (একর)	জমির মালিকানা (কোড)	লীজ নেয়া হলে বাৎসরিক কত টাকা দিতে হয়	চাষের ধরন (নিজস্ব হলে বাজার দরে লিখতে হবে)					
					লাঙ্গল		যান্ত্রিক		অন্যান্য	মোট (টাকা)
					সংখ্যা	খরচ (টাকা)	সংখ্যা	খরচ (টাকা)	খরচ (টাকা)	
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১
১ম										
২য়										
৩য়										
৪র্থ										
৫ম										

পেঁয়াজের প্রকারের কোড ঃ দেশী-১, উফশী-২ মালিকানা কোডঃ নিজস্ব-১, বর্গা-২, বন্ধক-৩, লীজ-৪ এবং অন্যান্য-৫

২। বীজ, বীজতলা প্রস্তুত, চারা উত্তোলন ও চারা রোপণ এবং সেচ খরচ (টাকা)

খন্ড	বীজ, বীজতলা প্রস্তুতকরন, চারা উত্তোলন ও চারা রোপণ									সেচ খরচ (টাকা)	মোট খরচ (টাকা)
	বীজ		বীজতলা প্রস্তুতকরন		চারা উত্তোলন		চারা রোপণ		অন্যান্য		
	পরিমাণ (কেজি)	খরচ (টাকা)	সংখ্যা	খরচ (টাকা)	সংখ্যা	খরচ (টাকা)	সংখ্যা	খরচ (টাকা)	খরচ (টাকা)		
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১	১২
দেশী-১											
উফশী-২											

(পারিবারিক কর্মী হলে মজুরী বাজার দরে লিখতে হবে)

৩। সার নিড়ানি/আগাছা পরিস্কার এবং কীটনাশক ব্যবহার এবং খরচ

খন্ড	সার							নিড়ানি/আগাছা পরিস্কার		কীটনাশক খরচ (টাকা)	মোট খরচ (টাকা)
	ইউরিয়া		টিএসপি		পটাশ (এমওপি)		অন্যান্য				
	পরিমাণ কেজি	মূল্য (টাকা)	পরিমাণ কেজি	মূল্য (টাকা)	পরিমাণ কেজি	মূল্য (টাকা)	মূল্য (টাকা)	সংখ্যা	মূল্য (টাকা)		
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১	১২
১ম											
২য়											
৩য়											
৪র্থ											
৫ম											

৪। পেঁয়াজের কলি কাটা, পেঁয়াজ উত্তোলন এবং পেঁয়াজ পাতা কাটা শ্রমিকের সংখ্যা ও খরচ (টাকা)

খন্ড	পেঁয়াজের কলি কাটা			উত্তোলন			পেঁয়াজ পাতা কাটা			অন্যান্য খরচ (টাকা)	মোট খরচ (টাকা)
	শ্রমিকের সংখ্যা		খরচ (টাকা)	শ্রমিকের সংখ্যা		খরচ (টাকা)	শ্রমিকের সংখ্যা		খরচ (টাকা)		
	পারিবারিক	ভাড়া		পারিবারিক	ভাড়া		পারিবারিক	ভাড়া			
১	২	৩	৪	৫	৬	৭	৮	৯	১০	১১	১২
১ম											
২য়											
৩য়											
৪র্থ											
৫ম											

(পারিবারিক কর্মী হলে মজুরী বাজার দরে লিখতে হবে)

৫। পেঁয়াজের কলি (কেজি) এবং পেঁয়াজ উৎপাদনের পরিমাণ (কেজি) ও মূল্য (টাকা)

খন্ড	পেঁয়াজের কলি		পেঁয়াজ		মোট মূল্য (টাকা)
	পরিমাণ (কেজি)	মূল্য (টাকা)	পরিমাণ (কেজি)	মূল্য (টাকা)	
১	২	৩	৪	৫	৬
১ম					
২য়					
৩য়					
৪র্থ					
৫ম					

৬। পেঁয়াজ চাষের মৌসুমে পেঁয়াজ চাষের জন্য এক একর জমি লীজ নিতে মালিককে কত টাকা দিতে হয়। ----------

তথ্য সংগ্রহকারীর নাম ---------- সুপারভাইজারের নাম ----------

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তারিখ ---------- তারিখ ----------

Reference:

1. **Statistical Year Book of Bangladesh, 2006**
   - Bangladesh Bureau of Statistics
2. **Statistical Year Book of Bangladesh, 2008**
   - Bangladesh Bureau of Statistics
3. **Preliminary Report on Agriculture Census, 2008**
   - Bangladesh Bureau of Statistics
4. **Census of Agriculture, 1996**
   - Bangladesh Bureau of Statistics
5. **Year Book of Agriculture Statistics of Bangladesh, 2007**
   - Bangladesh Bureau of Statistics
6. **Foreign Trade Statistics of Bangladesh, 2007-08**
   - Bangladesh Bureau of Statistics