



2016/17
FINAL REPORT

**SURVEY OF CONSTRUCTION
INDUSTRIES**



**DEPARTMENT OF CENSUS AND STATISTICS
MINISTRY OF ECONOMIC REFORMS
AND PUBLIC DISTRIBUTION**

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PREFACE

In 1993, the Department of Census and Statistics (DCS) conducted its first Survey on Construction Industries at the request of Institute for Construction Training and Development (ICTAD). The output of the survey revealed that this survey to be continued to produce important economic and labor related indicators of construction sector in the country. Therefore, it became a regular survey in the Department.

DCS has been conducting this survey annually with some exception where this was conducted biennially. This is the 18th survey on construction industry which was conducted by the DCS. It gives data on input, output, value added, labor engaged in the sector etc.; which are very important for economic policy makers as well as construction industries itself. Moreover the information of this survey provide valuable information to formulation the Gross Domestic Product for the country. The contribution of construction sector to the GDP is an important indicator which is estimated using this survey. According to the Survey of Construction Industries 2017, the total estimated Value Added by all type of construction activities in Sri Lanka was Rs. 231,257 million.

This report gives estimates only for the construction activities registered under CIDA which gives information of the sector for the reference year 2016. Hope the findings of this report would be very useful to make evidence based decisions for the country.



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The report was prepared by Mrs. G.D.N. Munasinghe, Statistician of Industry, Construction, Trade & Services Division with the support of the division staff. The computer assisted data processing using the software package C Sharp was done by Mr. R.M.P. Dharmapriya, ICTA and the statistical tables were obtained using SPSS by Mrs. G.D.N. Munasinghe, Statistician. The computation and data processing were done by Ms. U.H. Elpitiya, Ms. R.G. Indika, Development Officers & Mr. S. Rajesh Kanna, Coding Clerk. The cover page was designed by Ms. M.A.F. Nusrath, Coding Clerk.

Data collection was done by the District Statistical Officers/ Statistical Assistants under the supervision of District Senior Statisticians/ Statisticians. Follow up data collection was carried out by the staff of Industry, Construction, Trade & Services Division under the supervision of Senior Statisticians and Statisticians of the Division. Printing of the report was done by the staff of printing Division, under the supervision of Mr. M.L.K.P. Kumara, Statistician.

The respondents of the construction establishments selected for this survey who extended their co-operation to DCS in collecting data are also very much appreciated.

Content

	Page No.
Preface.....	i
Acknowledgement.....	iii
List of Tables.....	vii
List of Figures.....	viii
1. Introduction	1
Background	1
Scope and Coverage	1
2. Methodology	2
Frame, coverage, information collected,	
Method of data collection	2
Concepts and Definitions	3
3. Survey Results	4-8
4. Statistical Appendix	10-16

List of Tables

	Page no.
Table 3.1: Distribution of Value of work done by type of construction activity – 2016	4
Table 3.2: Distribution of Total Contract Value by type of construction activity – 2016	5
Table 3.3 : Share of Value of Work Done for the Total Value of Contract by type of construction activity – 2016	6
Table 3.4 : Value of Raw Materials consumed of All Construction activities – 2016	7
Table 3.5 : Some Selected Indicators of All Construction Activities – 2016	8
Table 4.1 :Some Selected Indicators of Construction Activities Classified by Type of Construction activity – 2016	11-13
Table 4.2 : Average No. of Employees & Salaries Classified by type of Employee Category – 2016	14
Table 4.3 : Number of Establishments by Type of Legal Organization – 2016	15
Table 4.4 : Number of Establishments by Persons engaged size category – 2016	15
Table 4.5 : Average number of employees by Persons engaged size category – 2016	15
Table 4.6 : Number of Activities by Type of Construction Activity & Value of Work Done Size Category – 2016	16

List of Figures

	Page no.
Figure 3.1: Distribution of Value of work done by type of construction activity – 2016	5
Figure 3.2: Distribution of Total Contract Value by type of construction activity – 2016	6
Table 3.3 : Share of Value of Work Done for the Total Value of Contract by type of construction activity – 2016	7
Figure 3.4 : Value of Raw Materials consumed of All Construction activities – 2016	8



1. INTRODUCTION

BACKGROUND

A survey on construction industries was conducted in 1993 for the first time in Sri Lanka by the Department of Census and Statistics (DCS) on the request of ICTAD (Institute for Construction Training and Development) presently CIDA (Construction Industry Development Authority). Since then the DCS has been conducting this survey annually but in some instances once in two years for providing important statistical indicators related to the construction sector of the country.

Though it is expected to give indicators that represent the country this survey has some limitations in coverage. The practical difficulties in obtaining a frame of construction activities carried out in the country has resulted to use the list of contractors registered in the CIDA to be used as the sample frame.

The construction activities carried out through foreign companies may not be in the CIDA registration list. But, the sub contracts given by foreign projects to contractors registered in the CIDA are

covered. Collecting data by differentiation the projects expenditure from the sub contracts was not met in this survey. Therefore for giving an unbiased estimate the of CIDA was used.

The objective of this survey is to provide present statistical indicators related to value added and employment in the construction sector in the country.

This Construction Survey (2016) is the 18th in the series of surveys the Department has conducted so far.

SCOPE AND COVERAGE

All construction activities undertaken by the private, government and semi-government contractors who were registered with CIDA.

For the data collection process the activities were categorized according to the following classification.

1. Construction of buildings
2. Construction of roads and railways
3. Construction of utility projects
4. Construction of other civil engineering projects
5. Demolition and site preparation
6. Electrical, plumbing and other construction installation activities

- 7. Building completion and finishing
- 8. Other specialized construction activities

The construction activities done in their own by the householders and the construction activities were not in function during 2016 were not covered in this survey.

2. METHODOLOGY

Frame

This survey was done covering the establishments registered with CIDA for the year 2016 by two ways a full enumeration of large contractors and a sample drawn from others for enumeration. The number of establishments considered for full enumeration was 730 and the sample was 470.

Coverage

The data were collected according to the different construction activities mentioned above. It was observed that the contractors were not able to provide information such as intermediate consumption to calculate value added for different type of activities they carried out during the reference year 2016. Therefore the questionnaire was

simplified to collect data required, for the survey to avoid the burden of the respondents and to get the maximum information from the establishments for data analysis.

Information collected

Following information was collected through the questionnaire, for this survey.

- Total value of contract
- Value of work done
- Value of raw materials consumed
- Employment and salaries
- Expenditure for other services
- Receipts for other services
- Own account capital formation

Method of data collection

The questionnaire was mailed to the industries and a reminder was posted to the non-responding establishments after the deadline of submitting the completed questionnaire. The response rate of this survey was very low and several attempts were taken to improve this situation. For instance officers of the DCS were sent to the establishment to collect information with their assistance. It was a tedious



3. SURVEY RESULTS

It should be mentioned that the frame of the survey included the construction industries registered with CIDA in 2016. The results may be excluding the construction industries recently commenced if they are not registered with the CIDA.

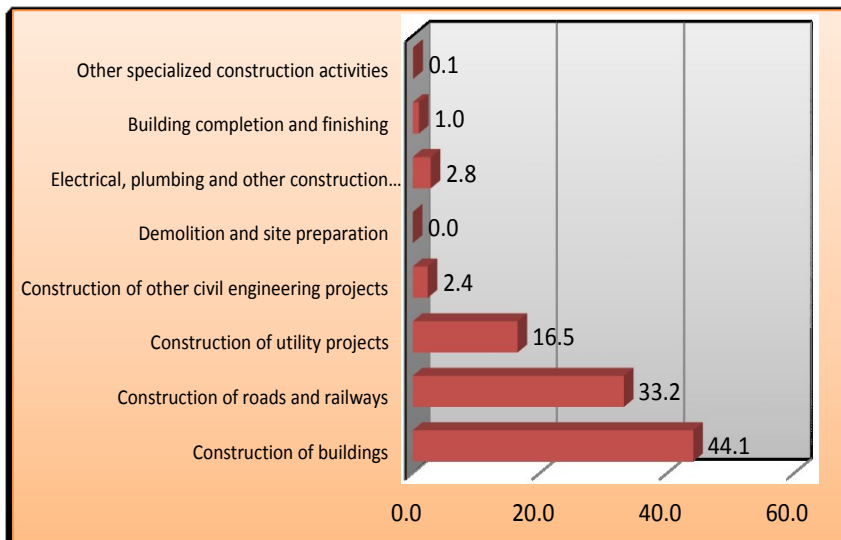
The data analysis reveals the performance of the construction industry during the year 2016. The economic related indicators compiled from this survey are described below.

- ❖ Total estimated value of work done by all type of construction activities in Sri Lanka was Rs. 319,632 Million.
- ❖ The highest contribution (44.1%) to this total value has been made by the building construction activities, which was Rs. 140,900 Million.
- ❖ The value of work done for construction of roads and railways was Rs. 106,030 Mn., the percentage of which to the total is around 33%.

- ❖ Construction of utility projects contributed outstanding rate (16.5%) to the total work done during the year 2016.

Table 3.1 : Distribution of Value of work done by type of construction activity - 2016

Type of Construction Activity	Value of work done (Rs. Mn)	%
Construction of buildings	140,900	44.1
Construction of roads and railways	106,030	33.2
Construction of utility projects	52,642	16.5
Construction of other civil engineering projects	7,520	2.4
Demolition and site preparation	73	0.0
Electrical, plumbing and other construction installation activities	9,064	2.8
Building completion and finishing	3,089	1.0
Other specialized construction activities	314	0.1
Total	319,632	100.0

Figure 3.1: Distribution of Value of work done by type of construction activity - 2016

In 2016, construction of buildings, roads & railways and utility projects contributed around 94 percent of the value of total work done.

Total Value of contract : The total value of the project is termed as the value of contract as the data collection is done from the contractors. This contract may take more than one year. The value of work done during the reference year is a part of the total value of the contract in some projects which lasts for more than one year.

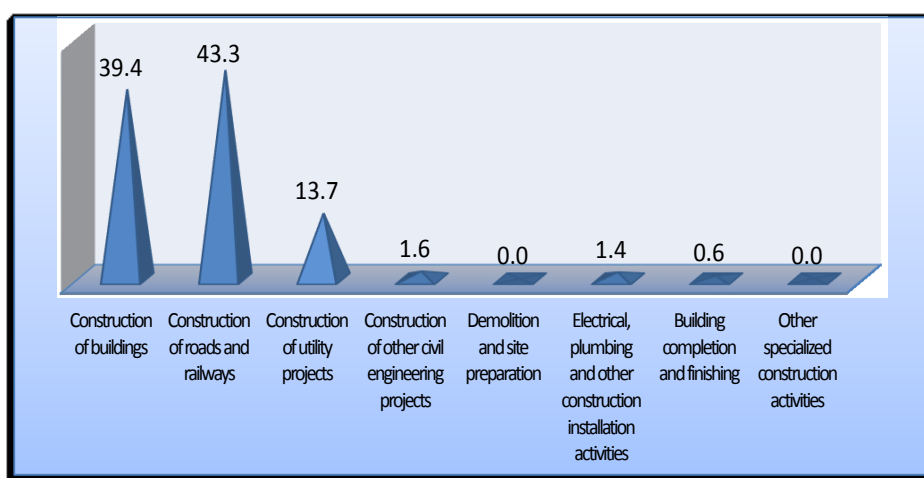
Table 3.2 : Distribution of Total Contract Value by type of construction Activity - 2016

Type of Construction Activity	Value of Contract (Rs. Mn)	%
Construction of buildings	281,205	39.4
Construction of roads and railways	309,539	43.3
Construction of utility projects	97,554	13.7
Construction of other civil engineering projects	11,266	1.6
Demolition and site preparation	83	0.0
Electrical, plumbing and other construction installation activities	9,935	1.4
Building completion and finishing	4,299	0.6
Other specialized construction activities	314	0.0
Total	714,195	100.0

Table 3.2 presents the distribution of total contract value by type of construction activity in the year 2016. Construction of roads & railways records the highest value of contracts (Rs. Mn. 309,539) which is 43.3

percentage to the total contract value followed by construction of buildings activity (39.4%). The value of this activity reported as Rs. Mn. 281,205.

Figure 3.2: Distribution of Total Contract Value by type of construction activity - 2016



Among the all construction activities Demolition & site preparation and other specialized construction activities recorded lowest value of total contract value.

Table 3.3 : Share of Value of Work Done for the Total Value of Contract by type of construction activity - 2016

Type of Construction Activity	Value of Contract (Rs. Mn)	Value of work done (Rs. Mn)	%
Construction of buildings	281,205	140,900	50.1
Construction of roads and railways	309,539	106,030	34.3
Construction of utility projects	97,554	52,642	54.0
Construction of other civil engineering projects	11,266	7,520	66.7
Demolition and site preparation	83	73	88.0
Electrical, plumbing and other construction installation activities	9,935	9,064	91.2
Building completion and finishing	4,299	3,089	71.9
Other specialized construction activities	314	314	100.0
Total	714,195	319,632	44.8

Table 3.3 further revealed the share of value of work done to the total contract value during the year 2016. It reveals that the roads & railways construction activities which is the largest value of contract Rs. 309,539 Mn. is contributed the lowest percentage of work done which accounted for 34.3 percent.

Sectors of Building construction has been completed 50 percent of the activity

(project) and all other activities have been completed more than 50 percent of the activity during the reference period.

The contracts related to the other specialized construction activities were 100% complete. Activity of electrical, plumbing and other construction installation was 91.2 percent completed.

Figure 3.3 : Share of Value of Work Done for the Total Value of Contract by type of construction activity - 2016

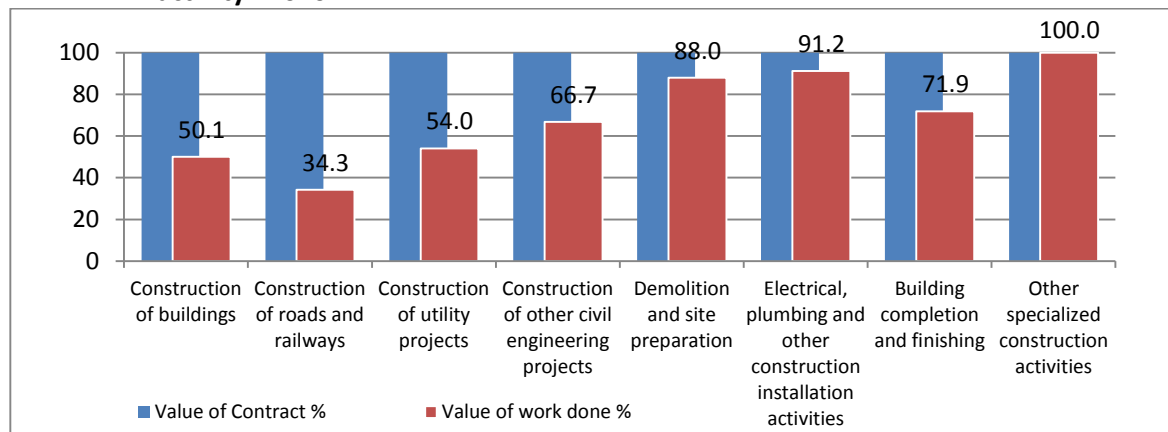
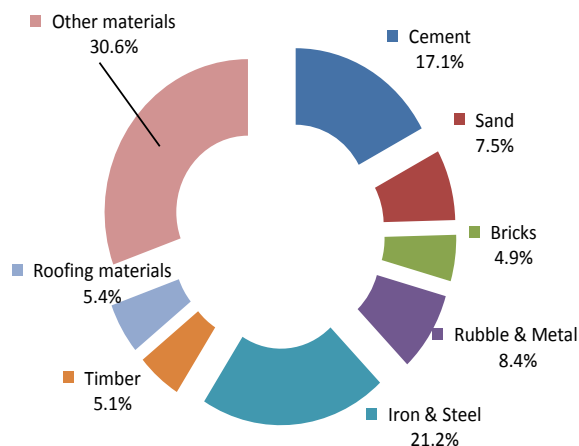


Table 3.4 : Value of Raw Materials consumed of All construction activities - 2016

Type of raw material	Value (Rs. Mn)	%
Cement	14,036	17.1
Sand	6,131	7.5
Bricks	4,016	4.9
Rubble & Metal	6,876	8.4
Iron & Steel	17,372	21.2
Timber	4,175	5.1
Roofing materials	4,403	5.4
Other materials	25,088	30.6
Total	82,097	100.0

Table 3.4 shows the value of raw materials consumed of all construction activities during the year 2016. The highest percentage (30.6%) recorded from other materials, such as aluminium, glass, tiles, pipe fittings, electrical items,.....etc. Mostly those materials have been consumed for all the other construction activities except construction of buildings, roads & railways.

Figure 3.4 : Value of Raw Materials consumed of all construction activities - 2016



The percentage value of Iron & Steel consumed to the construction activities was 21.2 while the percentage of cement consumed was 17.1%.

Table 3.5 : Some selected Indicators of all construction activities – 2016

Indicator	All construction activities (Rs. Mn)
Value of Contract	714,195
Value of Work Done	319,632
Intermediate Consumption	144,994
Value Added	231,257
Raw Materials	82,097
Wages & Salaries	28,692

- The total value of contract of all construction activities throughout the year 2016 was Rs. Mn. 714,195. Thereof the value of work done during the year was Rs. Mn. 319,632 (nearly 45 percent).
- To generate Rs. Mn. 231,257 Value Addition, a value of Rs. Mn. 144,994 for Intermediate Consumption was used.
- It has been reported that the total Wages & Salaries paid to workers engaged in all types construction activities is Rs. Mn. 28,692.

According to the Annual Survey of Construction Industries, the total estimated Value Added by all type of construction activities in Sri Lanka was Rs. 231,257 million in 2016.

4. STATISTICAL APPENDIX

Table 4.1 : Some Selected Indicators of Construction Activities Classified by Type of Construction Activity - 2016

Type of Construction Activity		No. of Activities	Total Value of Contract (Rs.)	Value of work done (Rs.)
410 - Construction of buildings	41001 : Residential buildings	201	14,403,194,021	11,996,697,997
	41002 : Non residential buildings	1,197	119,922,560,321	81,375,838,559
	41003 : Both residential & non residential buildings	382	138,066,769,308	40,181,851,098
	41004 : Remodeling or renovating existing residential structures	814	8,812,802,664	7,346,012,990
	Group total	2,594	281,205,326,314	140,900,400,644
421 - Construction of Roads & Railways	42101 : Construction of roads	1,818	282,221,325,725	93,901,878,816
	42103 : Construction of bridges, tunnels	143	27,259,098,435	12,069,988,943
	42109 : Other construction related to roads & railways	94	58,243,490	58,243,490
	Group total	2,055	309,538,667,651	106,030,111,250
422 - Construction of utility projects	42201 : Construction of pipelines, power lines & communication lines	468	20,373,730,722	6,609,058,887
	42202 : Construction of irrigation systems (canals) & reservoirs	356	44,885,477,775	18,318,322,666
	42203 : Construction of sewer systems, including repair	147	30,914,443,777	27,017,795,930
	42205 : Construction of power plants	3	1,039,885,781	408,437,784
	42206 : Construction of communication towers	3	238,809,146	213,787,781
	42207 : Drilling/ construction water wells	37	101,400,692	74,588,408
	Group total	1,014	97,553,747,893	52,641,991,456
429 - Construction of other civil engineering projects	42901 : Construction of industrial facilities, except buildings, such as refineries, chemical plants	10	444,990,217	354,112,234
	42902 : Construction of waterways, harbour & river works, pleasure ports (marinas), locks, etc.	116	438,735,528	426,017,944
	42903 : Dredging of waterways	23	285,786,950	256,406,211
	42904 : Construction work of outdoor sports facilities	15	19,360,384	19,360,384
	42905 : Land subdivision with land improvement (e.g. adding of roads, utility infrastructure etc.)	15	13,053,611	13,053,611
	42909 : Construction of other civil engineering n.e.c	90	10,064,331,285	6,450,581,068
	Group total	269	11,266,257,975	7,519,531,452

Table 4.1 : Some Selected Indicators of Construction Activities Classified by Type of Construction Activity - 2016

Type of Construction Activity	No. of Activities	Total Value of Contract (Rs.)	Value of work done (Rs.)
431 - Demolition and site preparation	43	80,223,239	69,615,000
43121 : Site preparation for buildings			
43122 : Site preparation for other construction, site preparation for mining and for drainage	3	3,105,023	3,105,023
Group total	46	83,328,262	72,720,023
432 - Electrical, plumbing and other construction installation activities	38	4,313,937,429	4,305,398,967
43211 : Installation of electrical wiring & fittings			
43219 : Other electrical installation (including alarm systems) n.e.c	3	4,196,731	4,196,731
43221 : Installation of plumbing & sanitary equipment	10	27,558,245	27,558,245
43222 : Installation of ventilation, refrigeration or air-conditioning equipment, non-electric solar energy collectors & ducts			
43223 : Installation of heating systems (electric, gas & oil)	34	3,624,414,165	3,394,056,662
43224 : Installation of fire extinguishers	1	333,494	333,494
43229 : Other installation related to plumbing, heat & air conditioning n.e.c	5	701,701,108	70,170,111
43291 : Installation of elevators, escalators	14	578,091,376	578,091,376
43293 : Installation of lightning conductors	3	48,714,902	48,714,902
43299 : Other construction installation n.e.c	18	538,334,451	538,334,451
Group total	16	97,369,729	97,369,729
	142	9,934,651,628	9,064,224,667

Table 4.1 : Some Selected Indicators of Construction Activities Classified by Type of Construction Activity - 2016

Type of Construction Activity		No. of Activities	Total Value of Contract (Rs.)	Value of work done (Rs.)	
433 - Building completion and finishing	43301 : Installation of wooden fittings of buildings (doors, windows, door & window frames, pantry cupboards, ceilings, partitions etc.)	85	505,105,678	505,105,678	
	43302 : Installation of aluminium & other steel fittings of buildings (doors, windows, door & window frames, ceilings, partitions etc.)	74	1,192,051,449	957,992,489	
	43303 : Installation of amano fittings for the buildings (gutters etc.)	20	20,884,505	20,884,505	
	43304 : Tiling; laying terrazzos, mables, granite etc.	9	55,553,434	55,553,434	
	43306 : Painting of buildings & civil engineering structures	167	702,837,107	309,272,676	
	43307 : Installation of fittings of steel, stainless steel (staircase frames, balcony fences etc.)	60	313,118,909	236,805,171	
	43309 : Other building completion work n.e.c (installations of glass mirrors, furniture, cleaning of buildings after construction etc.)	73	1,509,097,099	1,003,386,943	
	Group total	488	4,298,648,179	3,089,000,895	
	439 - Other specialized construction activities	43901 : Construction of foundations, including pile driving	3	117,985,493	117,985,493
		43902 : Damp proofing and water proofing works	8	148,475,829	148,475,829
43909 : Other specialized construction activities n.e.c.		11	47,706,715	47,706,715	
Group total		22	314,168,036	314,168,036	
Total		6,630	714,194,795,938	319,632,148,422	

Table 4.2 : Average No. of Employees & Salaries Classified by type of Employee Category - 2016

Employee Categories		Male	Female	Total	Wages & Salaries
Working Proprietors/ Active Partners		2,766	316	3,082	**
Unpaid Family Workers		1,109	474	1,583	**
Operators		128,700	571	129,271	15,618,314,974
Other Employees	Administrative/Managerial	5,028	822	5,850	3,478,761,357
	Technical/ Supervisory	13,130	1,236	14,366	4,078,892,073
	Clerical & related	5,072	3,151	8,223	2,018,686,028
	Other	18,458	1,706	20,164	3,572,247,701
Total	174,263	8,276	182,539	28,766,902,133	

** not relevant

Table 4.3 : Number of Establishments by Type of Legal Organization - 2016

Type of Legal Organization	No. of Establishments
sole Ownership	3,389
Partnership	284
Private Limited Liability Co.	450
Public Limited Liability Co.	39
Co-operative Society	5
Government	22
Semi Government	3
Other	18
Total	4,208

Table 4.5 : Average number of employees by Persons engaged size category - 2016

Persons engaged size category	Average No. of Employees		
	Male	Female	Total
Less than 10	8,704	838	9,542
10 - 19	14,581	443	15,024
20 - 49	23,223	991	24,214
50 - 99	16,336	554	16,890
100 & above	111,419	5,450	116,869
Total	174,263	8,276	182,539

Table 4.4 : Number of Establishments by Persons engaged size category - 2016

Persons engaged size category	No. of establishments
Less than 10	1,845
10 - 19	1,096
20 - 49	799
50 - 99	235
100 & above	233
Total	4,208

Table 4.6 : Number of Activities by Type of Construction Activity & Value of Work Done Size Category - 2016

Value of Work Done Size Category (Rs.)	All Activities	No. of Activities								
		410 - Construction of buildings	421 - Construction of roads & railways	422 - Construction of utility projects	429 - Construction of other civil engineering projects	431 - Demolition & site preparation	432 - Electrical, plumbing & other construction installation activities	433 - Building completion & finishing	439 - Other specialized construction activities	
Less than 100,000	40	-	20	-	20	-	-	-	-	-
100,000 - 999,999	1,139	355	432	132	69	34	10	100	7	
1,000,000 - 9,999,999	3,929	1,437	1,331	621	111	12	58	352	7	
10,000,000 - 99,999,999	1,235	692	190	205	58	-	51	31	7	
100,000,000 - 499,000,000	213	87	62	29	8	-	23	4	-	
500,000,000 & above	74	33	20	11	3	-	6	-	-	
Total	6,630	2,604	2,055	998	269	46	148	487	21	