



## THE 21<sup>st</sup> ASIA CONSTRUCT CONFERENCE

November, 2016

Japan

# SRI LANKA COUNTRY REPORT



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## 1.0 Executive Summary

Construction Sector continues to be the major value additor to the national Gross Domestic Product making a share of over 9% to the national Gross Domestic Product in the four consecutive years driving the economic growth of the economy.

In the construction sector growth rate which stood at 20.2 in the year 2014 has recorded a lower growth rate in the year 2015 due to the change of political environment.

The major infrastructure development projects being carried out by the previous regime have been put on hold due to procurement issues and environmental impacts which also dampen the emerging growth of the construction sector.

The sustainable growth of the construction sector has been hampered by many issues. Absence of consistent policies, lack of investment, shortage of skilled labour, scarcity of materials, lower productivity, high construction cost are some of the major factors which demand immediate attention for the sustainable development of the construction industry.

These issues lead to the creation of uncertainty in the minds of the investors creating sluggish construction market, jeopardizing the sustainable and inclusive growth of the Construction Industry.

The construction activities, which is the second largest industrial segment contracted by 0.9 % in 2015 against 6.6% growth recorded in 2014.

The comparative slow down in large scale infrastructure development projects was largely responsible for the witnessing of a lower growth rate.

The material consumption for the construction activities continued to rise in the year 2015. The availability of cement grew by 5.8% percent in 2015 recovering from stagnant performance in 2014. More over the building material import volume index also expanded by 9.7% in year 2015.

The labour wages continued to increase in the year 2015 due to the shortage of skilled labour. The skilled labour going overseas for higher wages continue to decrease due to more

opportunities in the local market. The continuous increase of labour and material prices leads to the continuous rising of the cost of construction making the construction cost of Sri Lanka one of the highest in the Asian region.

The credits to the private sector granted by licensed commercial banks for construction activities, increased significantly by 36.1% reflecting the increased participation of the private sector in the construction activities.

The credit granted to the personal housing construction activities by commercial banks also grew by 35.3% witnessing more investment in private residential activities.

## **2.0 Macro Economic Review and outlooks**

### **2.1 Overview of National Economy**

The real economic growth in Sri Lanka in 2015 is registered 5.7% as compared with 7.4% in 2014. A slowdown in the growth of traditional Sri Lankan markets had a negative impact on the export income.

Agricultural and service sectors grew by 4.8 % and 6.3% respectively while industrial sector recorded a growth of 4.8 % compared to the year 2014.

The contributions to the GDP by the agricultural forestry and fishing sectors continue to decline while the industrial and service sectors make strong contributions to the GDP.

The percentage share of the agricultural, forestry and fishing sectors remain to be in the region of 10% and the percentage share of the industry and services stood at 32% and 56% respectively.

Banks interest rate remains to be in the single digit although there is a very marginal rise in the interest rates compared to the previous year. The rupee has depreciated considerably against the US\$ recording a all time low rate of Rs. 145 US\$ per US\$.

The population recorded a very marginal growth of 0.9 % and lab our force also witnessed a very lower growth rate of 1.90%. The unemployed rate also recorded a marginal increase of 6% in year 2015 when compared with the previous year.

## 2.2 Main Economic Indicator

	2010	2011	2012	2014	2015
<b>GDP and Components (Rs. Million)</b>					
GDP at real Price	2,645,542	2,863,715	3,047,277	3,506,664	3,705,563
GDP at Current Market Prices	5,604,104	6,543,313	7,578,554	9,784,673	10,659,917
Real GDP growth (%)	8.0	8.2	6.3	7.4	5.7
Agriculture, Forestry and Fishery	717,910	791,761	833,477	964,766	1,079,755
Mining	89,226	112,386	152,113	214,235	236,567
Manufacturing	1,009,003	1,191,579	1,354,897	1,728,286	1,914,050
Services	3,236,926	3,794,893	4,356,837	5,511,568	6,043,596
Construction	423,414	511,220	712,272	1,150,010	1,215,350
Source : National Accounts of Sri Lanka 2015					
<b>Demographic Indicators (000 persons)</b>					
Population	20,675	20,869	20,424	20,771	20,966
Population Growth rate (%)	1.0	1.0	0.7	0.9	0.9
Total labor force	8,108	8,555	8,454	8,805	8,973
Labor force growth rate (%)	48.1	47.8	52.6	53.3	53.8
Unemployment rate (%)	4.9	4.2	4.0	4.3	4.6
Inflation rate (%)	6.22	6.74	7.53	3.29	0.93
Source : Central Bank Annual Report 2015					

Financial Indicators					
Interbank interest rate (%)	8.03	8.97	9.83	6.21	6.40
Short term interest rate (%)	9.27	10.49	14.29	6.49	7.32
Long term interest rate (%)	8.20	8.95	13.21	7.33	7.57
Exchange rate against US \$	113	110	128	133	145
Source : <a href="http://www.cbsl.gov.lk">www.cbsl.gov.lk</a> / <a href="http://www.customs.gov.lk">www.customs.gov.lk</a>					

GDP at Constant (2002) Prices

### 3.0 Overview of the Construction Industry

The Construction Industry is the backbone of the National Economy and its fluctuations in positive and negative directions always reflects where economy is heading for.

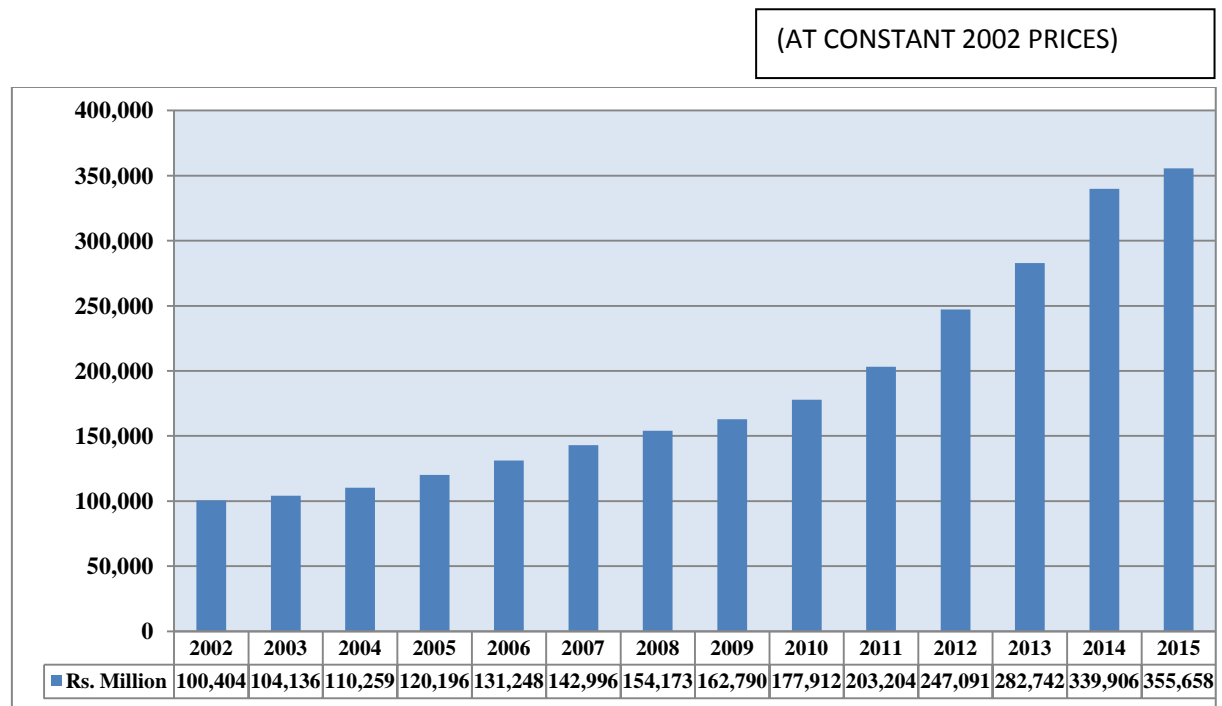
The cyclical variation in the Construction Industry is expected phenomenon and industry stakeholders must be able to absorb the shocks of this cyclical variations to diversify their operations specially during the lean periods.

The Construction sector has recorded a marginal growth of 4.6% in the year 2015 when compared to the growth rate of 14.2 recorded in the year 2014.

The Construction Industry continues to retain its position as a major value additor to the national economy contributing 9.6% to the national Gross Domestic Product. The slowness of the growth rate can be attributed to the political transition which took place in the beginning of year 2015. The major infrastructure development projects specially those funded through the external sources which have been carried out by the previous government were temporarily suspended, until real economic benefits of those projects in terms of backward linkages such as employment generation, technology transfer, environment factors are assessed by the various technical committees appointed by the new Government creating a lean period in construction in the year 2015.

The most of the mega infrastructure development projects are now being cleared with scope and cost modifications are expected to take-off creating signs of upward trend in the construction market.

### VALUE ADDITION BY THE CONSTRUCTION SECTOR TO GDP



Construction Sector has become major value additor to the GDP mainly due to the Implementation of major infrastructure development projects such as express ways, high ways, international ports and airports.

### 3.1 Construction Investment

The investment by the public sector recorded the positive growth of 19.36% in the year 2015 while the private sector also recorded a positive growth.

Public sector investment in infrastructure activities such as road projects, water supply scheme, ports and airports have created more works for the construction companies positively impacting economic growth.

## 3) -1. Breakdown of the Construction Investment

(Rs. Million)

Type of Investment	2010	2011	2012	2014	2015	2016
Private Residential	61,518	62,655	15,109	17,913	23,745	28,342
Private Non-Residential (including Civil Work)	271,222	310,985	64,368	84,390	111,868	133,526
Public (Residential & Non – Residential)	119,420 526,491	121,624 603,678	245,394 1,045,443	290,935 1,370,638	385,659 1,816,896	460,323 2,168,648
Repair & Maintenance (Private & Public)	17,532	19,687	30,054	38,685	51,102	61,210
<b>Total</b>	<b>996,183</b>	<b>1,118,629</b>	<b>1,400,368</b>	<b>1,802,561</b>	<b>2,389,270</b>	<b>2,852,049</b>
Source : National Accounts of Sri Lanka 2015 Survey of Construction Industries Final Report 2011/ 2013						

**3.2 Construction companies**

Construction Industry Development Authority plays a vital role of registration of construction companies operating in Sri Lanka evaluating their technical and financial capacities.

The CIDA registration is a mandatory requirements for being engaged in the construction activities in Sri Lanka. No contractor is allowed to bid without a valid registration at the time of bidding.

Although there are over 3000 registered contractors, there are only very few mega contractors with necessary in-house infrastructure such as machinery, equipments, human and financial capital and with the latest technology and systems of construction, handling large infrastructure projects. Due to this situation lot of major infrastructure development



projects are handled by the foreign contractors where Sri Lankan contractors play a role of sub contractors.

This situation also leads to creating less competition for the projects of higher value. The CIDA has recently introduced a programme called Continuous Competency Development (CCD) of contractors with the objectives of capacity building of the contractors, so that they can continuously upgrade their grading providing a solution to the issue of lack of contractors representing the higher grades.

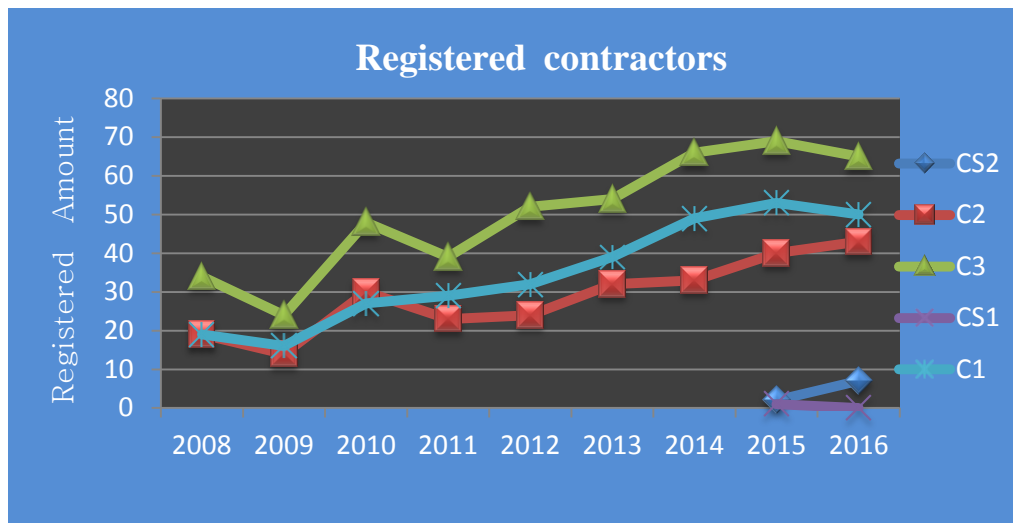
Each grade has been specified by the number of CCD points to be obtained in an annum and contractors who obtained a required number of points will only be eligible to renew their registration.

#### Number of registered Contractors according to their grading

	CS2	CS1	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Total
2008			19	19	34	71	81	157	545	151	71	20	1168
2009			16	14	24	55	116	182	784	303	96	41	1631
2010			27	30	48	103	173	293	1162	492	126	51	2505
2011			29	23	39	92	165	256	1151	446	114	53	2368
2012			32	24	52	101	183	271	1229	415	104	41	2452
2013			39	32	54	116	187	326	1180	310	84	20	2348
2014			49	33	66	146	217	477	1305	317	79	62	2751
2015	2	1	53	40	69	153	219	485	1239	316	74	13	2664
2016	7	0	50	43	65	171	209	513	1673	690	826	5	4252

Source : Construction Industry Development Authority (CIDA)

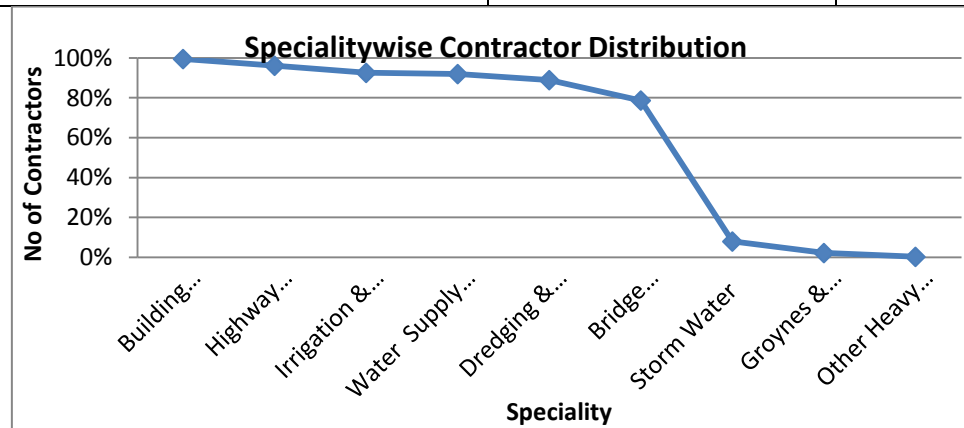
The chart reflects that majority of registered contractors fall into the category of medium and small scale creating very high competition in the projects ranging from Rs. 10 M Sri Lankan Rupees to 100 M Sri Lankan Rupees



Source : Construction Industry Development Authority (CIDA)

### 3.2.1 Speciality vs No of Contractors – 2015

Speciality	No of Contractors in 2015	% per Total Contractors
Building Construction	2650	99.47%
Highway Construction	2560	96.10%
Irrigation & Land Drain	2465	92.53%
Water Supply & Drainage	2449	91.93%
Dredging & Reclamation	2368	88.89%
Bridge Construction	2095	78.64%
Storm Water	210	7.88%
Groynes & Revetments	56	2.10%
Other Heavy Construction	5	0.19%
<b>Total Contractors</b>	<b>2664</b>	



Source : Construction Industry Development Authority (CIDA)

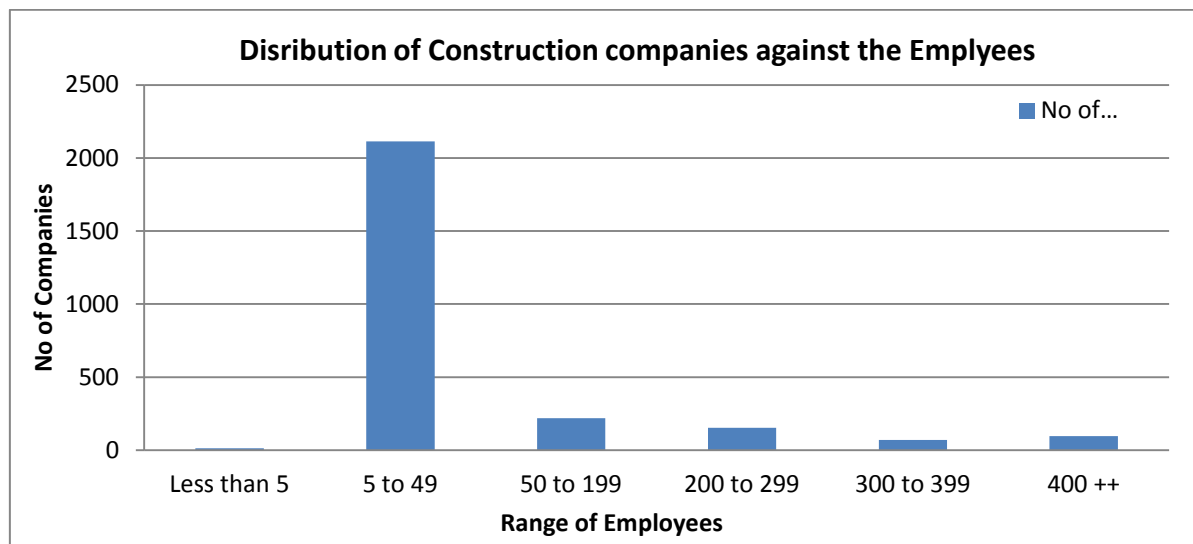
## 3.2.2 Distribution of Contractors by Employment Size

CATEGORY	Minimum no of Employees (Technical)			Total No of Contractors	% Distribution	No of Employees (Assumed)
	Professional Staff	Supervisory Staff	Total			
CS2	22	44	66	2	0.08%	3000
CS1	17	22	39	1	0.04%	2000
C1	8	14	22	53	1.99%	1400
C2	5	9	14	40	1.50%	400
C3	4	7	11	69	2.59%	300
C4	2	5	7	153	5.74%	200
C5	1	2	3	219	8.22%	125
C6	1	2	3	485	18.21%	40
C7	1	1	2	1239	46.51%	30
C8	0	1	1	316	11.86%	10
C9	0	1	1	74	2.78%	5
C10	0	1	1	13	0.49%	3
Total				2664	100.00%	

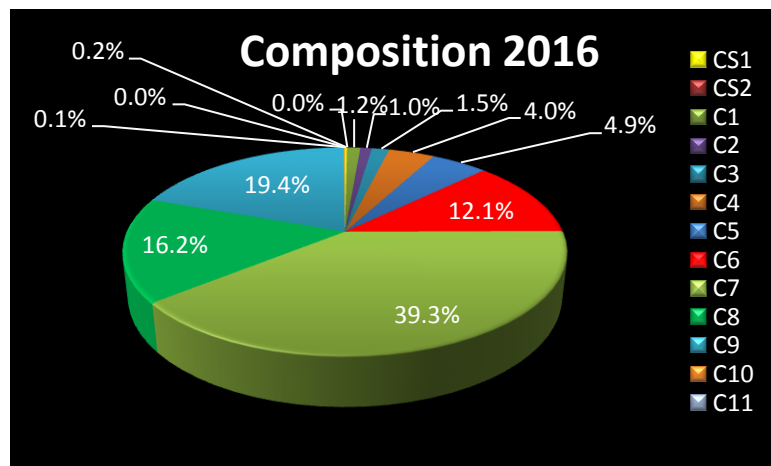
Source : Construction Industry Development Authority (CIDA)

Range of Employees	No of Companies
Less than 5	13
5 to 49	2114
50 to 199	219
200 to 299	153
300 to 399	69
400 ++	96
Total	2664

Source : Construction Industry Development Authority (CIDA)



Source : Construction Industry Development Authority (CIDA)

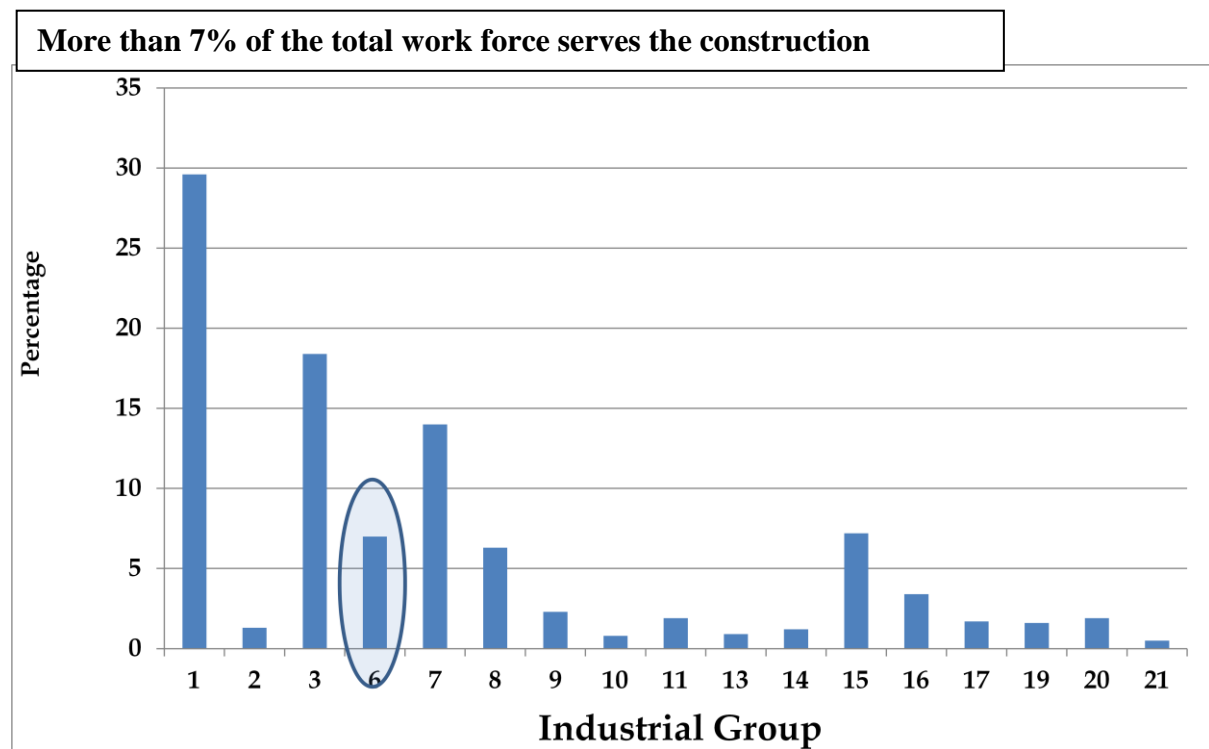


Source : Construction Industry Development Authority (CIDA)

### 3.3 Employees and Construction Labour

#### 3.3.1 Breakdown of Employers in terms of occupation

Current employment in the construction sector is 591,000 persons. The survey conducted revealed that about 11% of the total employees was in the professional grades, 12% in the technical grades, 71% in the craft grades and 6% in the operator grades. The construction sector has provided employment for over 7% of total employment.



Source : Labour force survey, Dept. of Census and Statistics

### 3.3.2 Demand for the occupations of the construction sector

The construction sector after lean period is ready to take off under the mega development plan of the new Government which came into power in 2015. The demand for the construction work force under different categories for the major development plan of the government including the megapolis are shown in the table below :

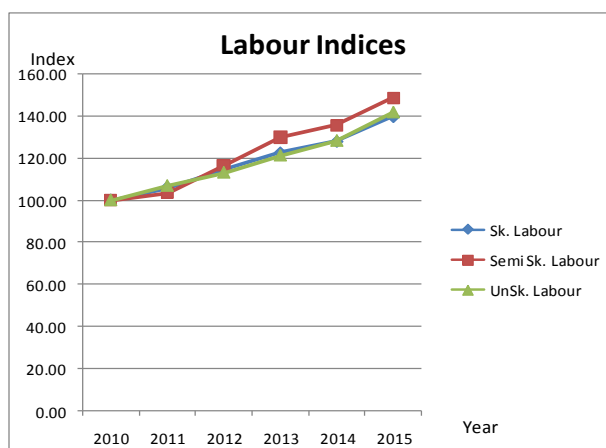
LABOUR PROJECTION FOR THE SRI LANKAN CONSTRUCTION INDUSTRY FOR  
NEXT FIVE YEARS  
(Upto 2020)

**Segregation of Labour**

NO.	DESCRIPTION			NUMBERS	
1	Unskilled			752,308	40.50%
2	Skilled Civil Masons Painters			460,115	24.77%
3	Carpenters & Fabricators			241,667	13.01%
4	Skilled MEP Plumbers Electricians			347,362	18.70%
5	Technical supportive staff			39,659	2.14%
6	Administrative support Staff			2,300	0.12%
7	Professionals (Approx, Projection)			14,139	0.76%
7.1	Project Managers	1,131	8%		
7.2	Architects	1,414	10%		
7.3	Civil Engineers	6,363	45%		
7.4	MEP Engineers	3,535	25%		
7.5	Quantity Surveyors	1,696	12%		
Total Human Resource Requirement				1,857,550.00	100%

**Note:** This is only a future prediction

Source : 2006 budget and megapolis development plan



Labour	2010	2011	2012	2013	2014	2015
Sk. Labour	100.00	106.08	114.80	122.71	128.12	140.03
Semi Sk. Labour	100.00	103.61	116.66	130.04	135.99	148.84
UnSk. Labour	100.00	106.85	113.14	121.31	128.30	141.84

Source : Construction Industry Development Authority (CIDA)

Prices of Labour							
Labour category	Average Price						
	2010	2011	2012	2013	2014	2015	unit
Skilled labour	911.00	966.35	1,045.82	1,117.92	1,234.00	1,352.00	Day
Semiskilled labour	858.00	888.99	1,000.83	1,115.55	1,215.00	1,342.00	Day
Unskilled labour	678.00	724.45	767.12	822.51	893.00	998.00	Day

Source : Construction Industry Development Authority (CIDA)

## 4.0 Productivity

### 4.1 Productivity of the Sri Lanka Construction Industry

In order to ensure proper economic benefits, it is required to increase the productivity for the construction sector.

Factors seriously impairing Construction productivity are related to project conditions, design and procurement construction management, government policy and training of industry personnel. Also such factors as weather variation, material shortage, lack of experienced design and project management personnel, many scope changes during construction, slow approvals and issues of permits also impair construction industry.

Continuous application of the traditional practices has prevented and delayed the use of technology innovations and created a stagnant environment.

The ICTAD as national body has made it compulsory that all the contractors falling in to the categories of C1 to C3 should have the ISO 9001 - 2008 and all the contractors have now fulfilled this mandatory requirement. The adherence to the international accepted processes improve the productivity of contractors making them globally competitive. The increased use of new technologies and IT based new tools for managing the process have also led to the increasing of productivity of the construction industry.

#### 4.2 Labour Productivity – Value added per employee

Labour productivity which is measured as output per employed person increased by 3.7% from Rs. 425.52 per hour in 2015 compared to Rs. 410.20 per hour in 2014. The service sector recorded the highest labour productivity levels of Rs. 525.64 per hour worked. The Industry sector productivity level was Rs. 470.34 per hour worked. Meanwhile agricultural sector recorded the lowest productivity level of Rs. 155.76 per hour during the year.

Labour Productivity by Major Economic Sectors		
	2014	2015 (a)
<b>Gross Value Added at Constant (2010) Prices, Rs.mn</b>	<b>7,470,465</b>	<b>7,817,394</b>
Agriculture	641,493	676,899
Industry	2,194,167	2,259,223
Services	4,634,805	4,881,273
<b>Labour Productivity, Rs. per Hour Worked (b)</b>	<b>410.20</b>	<b>425.52</b>
Agriculture	151.13	158.76
Industry	451.82	470.34
Services	508.71	524.64

(a) Provisional

(b) Data covers all districts

Sources: Department of Census and Statistics Central Bank of Sri Lanka



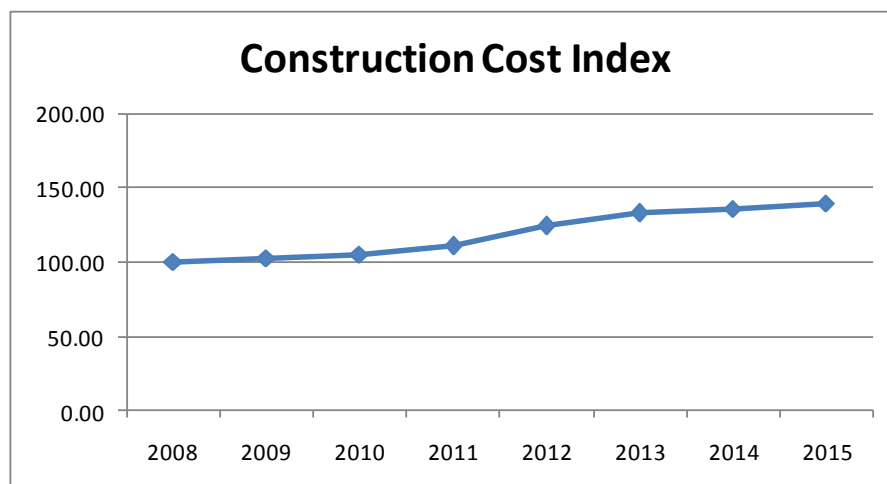
The labour productivity needs to be further enhanced with proper and suitable skill development programmes in order to accelerate the economic output.

Handling of the infrastructure development projects by foreign contractors has also made positive impact on the labour productivity due to the transferring of knowledge to the local counterparts.

## 5.0 Construction cost

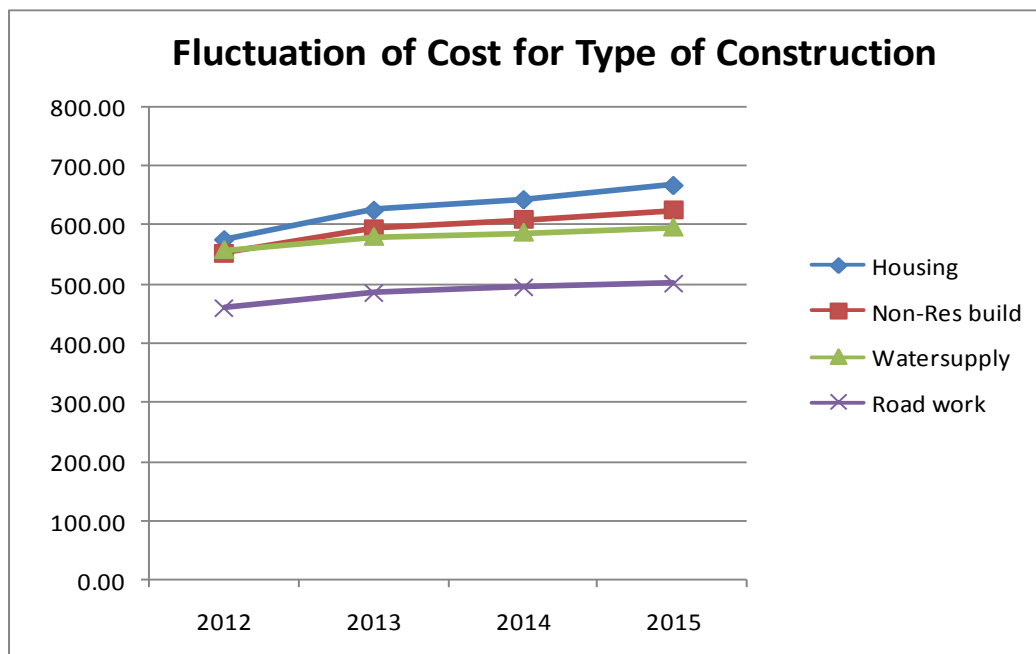
Fluctuation of cost for type of construction has been going up regularly. The unit cost has been escalating due to price increase in major construction materials, labour machinery and fuel.

	2008	2009	2010	2011	2012	2013	2014	2015
<b>Construction Cost Index</b>	100.00	102.59	104.76	110.38	123.86	132.75	135.99	139.68



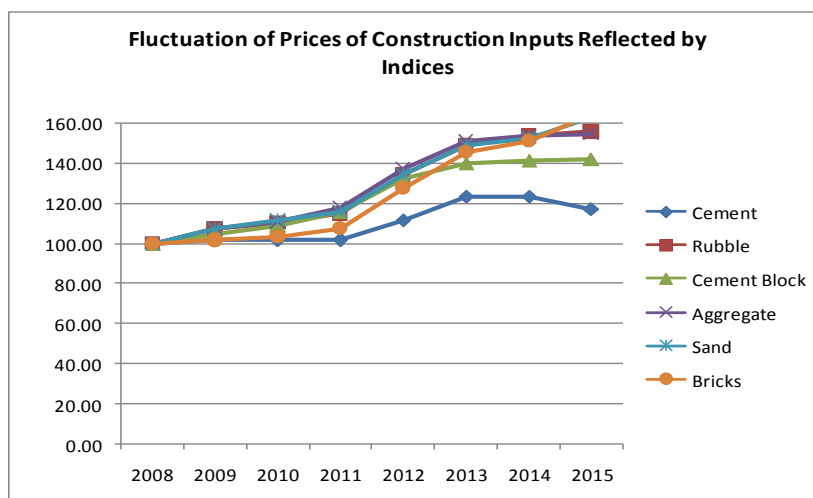
As these numbers appeared to be daunting, the most of the mega contractors are advocating the government that it should seriously consider the importation of foreign workforce under special conditions to ensure the smooth implementation of mega projects being launched. Labour indices maintained by the CIDA also reflects the continuous uprising of the labour prices due to the grave shortage of skilled labour in the market, making the escalation of the construction cost unavoidable.

### Fluctuation of cost for type of construction



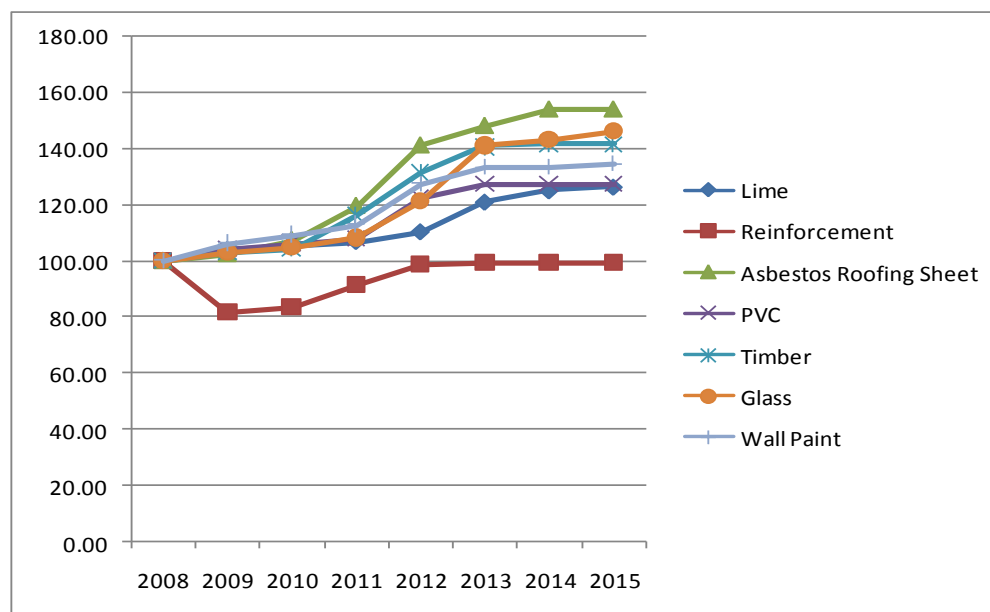
## 5.1 Construction material prices and indices

The price indices compiled by the CIDA reflects that material prices started climbing drastically with launching of the massive development drive by the government in the post war environment. The upward trend of the material prices commenced in the year 2010 remained to be so until year 2013. After the year 2013 material prices started to stabilize and remain to be high, making the construction cost one of the highest in the region.



Material	2008	2009	2010	2011	2012	2013	2014	2015
Cement	100.00	101.82	101.55	101.55	111.51	123.42	123.42	117.15
Rubble	100.00	107.02	110.16	114.81	134.28	149.12	153.69	155.72
Cement Block	100.00	104.76	108.73	115.83	132.48	140.03	141.53	142.24
Aggregate	100.00	107.38	110.52	118.04	137.19	150.79	153.66	154.47
Sand	100.00	107.14	111.86	115.87	134.42	149.29	152.58	163.13
Bricks	100.00	101.67	103.54	107.58	127.78	145.47	151.07	164.27

Source : Construction Industry Development Authority (CIDA)



Source : Construction Industry Development Authority (CIDA)

Material	2008	2009	2010	2011	2012	2013	2014	2015
Lime	100.00	103.94	105.36	106.85	110.35	121.10	125.20	126.54
Reinforcement	100.00	81.90	83.66	91.68	98.89	99.33	99.33	99.33
Asbestos Roofing Sheet	100.00	102.46	107.47	119.68	141.31	148.25	154.15	154.15
PVC	100.00	104.05	106.36	107.70	122.57	127.52	127.52	127.52
Timber	100.00	103.18	104.13	116.26	131.61	140.84	141.70	141.70
Glass	100.00	102.90	104.81	108.23	121.45	141.09	143.43	146.19
Wall Paint	100.00	106.31	109.32	112.96	127.53	133.40	133.39	134.56

Source : Construction Industry Development Authority (CIDA)

## 6.0 Import and Export of construction services

The Sri Lankan mega contractors have already ventured overseas as most of the contractors were able to develop their capacities and capabilities by working with foreign contractors forming joint ventures who undertook mega development projects such as highways, power projects, ports and airports.

Several Sri Lankan contractors have already undertaken projects overseas particularly the countries of Myanmar and Maldives. Government also facilitates the contractors going overseas as a policy measure since they generate valuable foreign exchange for the country's economy. There is a very high demand for the Sri Lankan skilled construction craftsmen in the overseas market and departures for foreign employment in construction related activities continue to decline due to the very high demand for the skilled workers in the local market. The number of opportunities available and number of departures shown in the below chart reflects that departures are on declining trend.

## Foreign Employment Placements for Selected craft and Related Workers

Job Category	2008	2009	2010	2011	2012	2013	2014	1st Half 2015
Electrician - General	2,963	2,011	1,927	1,170	522	621	654	516
Mason - General	2,932	1,872	2,339	1,014	602	564	816	596
Fitter - Plumber/Pipe	1,266	1,471	1,508	794	189	542	77	24
Welder - General	2,066	1,336	1,485	677	310	344	299	141
Carpenter - Junior	1,516	990	1,352	373	13	-	-	-
Fixer -Steel	274	887	535	358	259	254	503	634
Painter - General	1,392	677	518	335	186	296	372	89
Mason - Tile fixer	133	194	684	328	73	106	78	47
Mechanic - General	2,014	728	349	225	126	272	218	43
Electrician - Auto	133	88	57	195	73	71	43	16
Tailor	399	183	172	92	25	103	48	138
Painter-Spray	215	561	228	52	24	27	73	10
Carpenter-Furniture	1,067	585	340	47	79	23	18	3
Fabricator	146	24	86	34	99	27	11	2
Fitter-General	114	16	100	11	77	22	44	12
Bar bender	116	24	125	10	95	16	50	-
Tinker	220	84	10	10	13	9	5	5

Source : Labour Market Information Bulletin Vol 1/15



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## **1.0 Executive Summary**

### **The Construction Industry**

The Construction Industry plays a vital role in the Sri Lankan economy contributing 1/10<sup>th</sup> of the Gross Domestic Product (GDP). The construction sector has also been classified as a barometer of development considering its main role in the development of a country.

The Construction Industry has witnessed an unprecedented growth rate of 21.6% reflecting the massive investment in the infrastructure development in the post conflict scenario. The Construction Industry growth rate which had been witnessing the growth rate of over 14% in the three consecutive years has recorded a lower growth rate of 4.2% in the year 2015 due to the slow down of construction activities as a result of the political transition.

The present Government which came into power at the beginning of the year 2015 has now drawn up very ambitious and elaborate development plans to be implemented attracting the foreign direct investment envisioning the higher investment in the construction sector leading to the achieving of higher growth rate in G.D.P and construction sector. The development plan of the Western Megapolis is one of the major development plan of the new Government and value of the projects to be implemented under this massive development drive is estimated to be in the region of US\$ 40 billion. Most of the projects planned to be implemented have already been finalized and hive of construction activities are on the cards leading to a massive construction boom and industry players are now gearing up to take up this challenge playing an active role contributing to the development drive of the new Government.

The introduction of Policy, legal and institutional framework recently, will ensure continuous development and upliftment of the Construction Industry in a sustainable manner maintaining the transparency and accountability encouraging more investment in the construction sector creating more opportunities and market.



The establishment of the Construction Industry Development Fund and the Construction Industry Guarantee Fund have been instrumental in addressing the issue of lack of funds, which industry had been undergoing for decades.

The introduction of alternative materials and innovative and less labour intensive technologies as a result of research and development, will shift the traditional boundaries of the construction industry, creating fresh and more market opportunities for the stakeholders of the Construction Industry.

## **2.0 Main issues with the construction Industry**

The construction industry is presently ready to take off under the vision of the new Government. The issues which industry is presently undergoing need to be addressed sooner in order to ensure that industry will have a positive outlook catering to the need of the emerging development drive.

Shortage of skilled labour, materials, newer technology and expertise to meet the growing need is another challenging issue faced by the industry. Due to the shortage of labour, the labour wages are continuously rising, increasing the cost of construction. The low level of investment in research and development and low penetration of information technology in the industry have held back the positive growth of the industry. Delay in meeting project deadlines are also identified as a common issue. As majority of the large scale construction projects are Government initiated, many contractors face delay in payments. The issue is linked to lack of co-ordination between the Employers and the Contractors.

### **2.1 Lack of trained craftsmen**

Any industry needs trained and skilled manpower to achieve the development targets and construction industry is no exception. The Construction Industry is presently experiencing the huge shortage of manpower specially construction craftsmen creating a negative impact on the continuation of major projects being implemented at present.

This situation will be further aggravated once new Government will embark on its new development drive unless some innovative solutions are found to address this burning issues presently being experienced by the construction firms.

Human capital in the construction sector consists of professionals, technicians, skilled craftsmen and operators and they are supported by the unskilled workforce.

The supply of competent certified construction workforce to meet the needs of the Construction Industry and emerging development is a daunting task.

At present, the Vocational Education Courses being conducted are not properly oriented towards the needs of the labour market and there is a grave mismatch between the supply and demand. The skilled persons supplied to the market are not those required by the industries. The vocational educational courses have not responded positively sufficiently evolving responding to the changing composition of the G.D.P shifting from agriculture to higher value added industries and services which will require a highly skilled workforce.

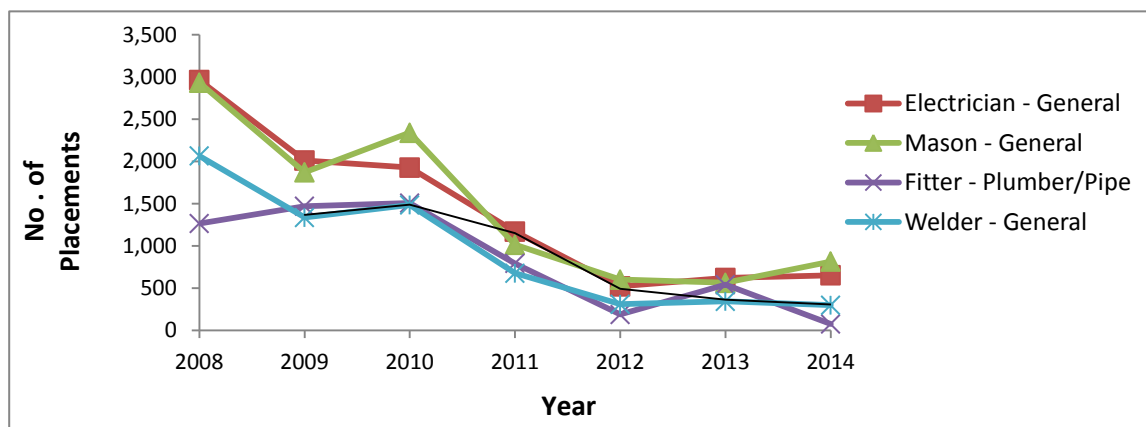
### 2.1.2 Foreign demand for skilled construction craftsmen

There is a big demand for skilled construction craftsmen in the foreign job market and number of job orders offered to Sri Lanka is on the rise. But Sri Lanka finds it increasingly difficult to cater to these job orders due to the shortage of craftsmen in the local construction industry. Due to the shortage of craftsmen, the craftsmen are now being offered very high wages by the local contractors, as a result of which craftsmen can now earn more than what foreign job agents offer to them, in a local market.

This trend is clearly reflected in the figures recently published by TVEC.

Foreign employment placement in two major craftsmen categories of masonry and carpentry trades have come down considerably recording more than 40% drop mainly due to the increased demand in the local scene.

**Trends in Selected Crafts & Related Workers Jobs**



Source – Labour Market Information Bulletin, Volume 01/15 – June 2015, TVEC

In the first half of the year 2016, foreign job placements for mason and carpenter were less than 25% of orders showing strong local demand

Data collected from Sri Lanka Foreign Employment Bureau on the vacancies received from foreign countries (demand) for Construction Industry craftsmen and departures to accept those vacancies (supply) show mix results during the past few years. In some cases demand for construction sector employees increased heavily while some segments decreased. However, the demand has not been met in any segments during the year mentioned.

The labour situation has aggravated to the extent that most of construction companies are now lobbying to the Government for the labour importation as a viable solution to the issue of the shortage of skilled labour.

#### Vacancies and Departures on Construction on Construction Craftsmen Abroad

Occupation	2013		2014		2015	
	V	D	V	D	V	D
Mason	2666	364	2505	816	1434	596
Carpenter	-	-	-	-	1309	516
Electrician	3548	621	3150	654	1437	-
Plumber	3126	342	3032	77	816	24
Welder	1341	344	1574	299	683	141
Painter	1028	296	1048	372	461	89

## 2.2 The scarcity in construction materials

Availability and prices of raw materials remain critical to the development of the industry. According to the annual survey of Construction Industry, expenditure on cement was the highest input while iron and steel followed closely. There was a continuous increase in prices of these materials due to the global demand and shortage.

The control of blasting powder due to security reasons severely constrains the production of coarse aggregate for concrete cement. With the restrictions being reduced and with the

improvement of security reasons, the supply side is expected to improve impacting on the prices.

The weakening of rupee against other major currencies has escalated prices of imported materials and components. Maintaining an adequate level of investment for generating construction work is challenging in the current situation in the country.

The construction materials shortage has also become one of the most burning issues for the achievement of sustainable Construction Industry.

The Sri Lanka Construction Industry still use the traditional materials of bricks, sand and lime creating negative environmental impacts. Several attempts to introduce alternative materials have not yielded the expected results as it is customary to resist the change.

The continuous usage of river sand as one of the main construction materials have already created many negative environmental impacts. Demand for sand will continue to rise with the emerging developments. Excessive mining to meet the demand may create severe stress on the ecological systems resulting following consequences :

- a. Lowering of river beds allowing sea water inclusion, polluting ground water sources
- b. The lowering of water table near rivers which in turn lowers water levels in wells
- c. The drying up of irrigation channels
- d. The increased instability of the banks and collapsing of river banks

The present sand supply for the building constructions within the country would appear to be more than 4.2 Million cubes according to the data published by Geological Survey and Mines Bureau.

Types of Sand	Annual availability Cu. (2014)
River sand	3,673,200
Off-shore sand	33,815
Land based sand and Dune	477,540
Manufactured sand	Not available in the market

The average rate of increasing demand is assumed as 10%. If this average rate of increase is assumed to continue the sand requirement for the coming years can be as shown in the following table :

Year	Sand requirement in cube '000
2013	8,192
2014	9,011
2015	9,912
2016	10,913

*Source –Recommendations for alternatives of river sand, A policy initiatives, Construction Industry Development Authority.*

### **2.3 Quality and productivity**

Quality and productivity are the two key aspects which need to be given very high priority in the construction process in order to ensure the process of sustainable construction, using minimum resources for the maximum output. Factors seriously impairing construction productivity are related to project conditions, market conditions, design and procurement, construction management, Government policy, education and training of industry personnel.

### **2.4 Lack of investment specially foreign direct investment in infrastructure development, creating a sluggish market**

Sri Lanka has been ranked 107 in the doing business index and several factors which are not much favourable from the point of investment have contributed to lower ranking in the index.

Lack of consistent policies, too many regulations, complex institutional structure, lengthy procedures and complicated tax structure with less transparency are the key factors which create unfavourable climate for the foreign direct investment.

The present Government which came in to power in the year 2015 has already introduced several policy and regulatory changes for the creation of a favourable climate for the foreign investors ironing out bottle necks which have hindered the attraction of investors shrinking the market.

Lot of infrastructure development projects have now been offered to be carried on the basis of public private partnership which will create more works creating a market for the local contractors, specially in the form of joint ventures ensuring their sustainability.

### **3.0 Efforts made according to the conditions surrounding the Construction Industry**

The Construction Industry has a very complex matrix as several stakeholders are involved in playing a different role creating forward and backward linkages. The Construction Industry is the one which creates the infrastructure required by other industries to carry out their functions and operations in a productive and efficient manner contributing to over 50% of Gross Domestic fixed capital formation.

Construction Industry needs to be developed in a coherent a integrated and holistic manner catering to national development needs, driving the economic growth. Therefore Sri Lankan Government has decided to introduce the Construction Industry Development Act covering the entire spectrum of the Construction Industry in order to have a proper legislation in place to regulate, register, finalize and standardize the activities of the Construction Industry, ensuring its sustainable development.

#### **3.1 Establishment of legal framework through the Enactment of Construction Industry Development Act No. 33 of 2014**

The Construction Industry Development Act. No. 33 of 2014 was enacted by the Sri Lanka Government making provisions for development of the Construction Industry in Sri Lanka publishing rules and regulations creating a environment where all stakeholders can play their respective roles in co-ordinated, integrated and inclusive manner ensuring its sustainable growth.

### **3.2 National Policy on Construction**

Absence of a coherent and integrated National Policy on Construction harmonizing with the other national policies had been a major drawback for the continuous upliftment and development of the Construction Industry.

Under the provisions of the Construction Industry Development Act, there is a provision for the formulation of the National Policy on construction covering all the areas relating to the construction Industry.

The Act also highlights the fact that the involvement of all the professionals within the Construction Industry including resource personnel in the field of traditional knowledge should be obtained in the formulation of National Policy on Construction.

The policy aiming at creating an efficient construction industry in Sri Lanka serving the national development needs through regulation, standardization, capacity building and facilitation have already been formulated with the involvement of all the professional bodies in construction and relevant Government Departments and Ministries. This National Policy will be submitted to the Cabinet of Ministers for approval in order to be published in the Gazette declaring the National Policy on Construction.

The Construction Industry has a very complex interactive matrix due to its role in the national economy with its span of influence in various sub sections of the economy, the various processes involved in the operations and participation of many stakeholders in its activities.

National Policy on Construction has been formulated setting eighteen policy elements to be implemented by the public and private sector ensuring the productive and efficient participation of all the stakeholders of the Construction Industry and policy elements are elaborated below :

NPC 1 - provide strategic leadership to stakeholders of the Construction Industry to stimulate sustainable growth, reforms and improvement of the Construction Industry.



- NPC 2 - regulate and monitor the activities of all stakeholders of the Construction Industry as may be prescribed from time to time.
- NPC 3 - Promote sustainable economical growth of the construction industry with special attention to the design and development of energy efficient and environmentally sustainable buildings, structures and construction practices
- NPC 4 - Promote innovation, dissemination and publication of research work on matters relating to the construction industry and its development.
- NPC 5 - Establish national standards and specifications for the construction Industry
- NPC 6 - Establish codes of conduct, practices, procedures, processes and documentations to promote good practices relating to construction industry
- NPC 7 - Enhance human capital, professionalism, efficiency and productivity of the human resource of the construction industry
- NPC 8 - Enhance occupational safety and health standards and practices in the Construction Industry
- NPC 9 - Enhance the use of Information Technology to improve efficiency and productivity of the construction industry processes
- NPC 10 - Promote access to overseas markets for Construction Companies and personnel
- NPC11 - Create an enabling environment for local and foreign investment in the construction Industry
- NPC 12 - Establish a monitoring and evaluation procedure to ensure compliance of industry practices with the National Construction Policy
- NPC13 - Promote domestic participation in foreign funded construction projects implemented by foreign contractors and consultants
- NPC 14 - Encourage private sector participation in policy development
- NPC 15 - Encourage effective management of construction projects by the industry
- NPC 16 - Establish Codes of Conduct among partners of the industry

NPC 17 - Encourage Human Resource Development in the Construction Industry

NPC 18 - Establish appropriate procurement practices in the Construction Industry

The policy was formulated in a manner, that it will establish synergy by the national policy on construction with the following related policies such as ; Educational Policy, National Housing Policy, Roads and Highway Sector Policy, Urban Development Policy, Physical Planning Policies, Power Sector Policy, Irrigation and Land Drainage Policies, Coast Conservation and Environmental Policies, Water Supply Policy / Water Shed Management Policy, Sanitation Policy, Vocational Training Policies, National Labour Policies, Disaster Management Policy, Local Government Policy, Occupational Health & Safety Policy, Investments Policy/ Economic Policy, and all other related Policies which are either presently established or shall be established at a future date.

National Policy on construction was formulated giving an emphasis on the fact that efficient Construction Industry characterized by fair play, cost effectiveness, timely delivery and quality is a critical need at present to achieve the objectives of national development in Sri Lanka.

### **3.3 Establishment of National Advisory Council on Construction**

The Act has also made provisions for the establishment of a very high level council on construction comprising of all the ministries relevant to the subject of construction and professional bodies representing the Construction Industry.

The council is comprised of seven ex-officio members representing the ministries and fifteen members appointed by the Minister which include the 11 members representing the professional bodies and four members who have achieved eminence in the fields of construction, environmental science, labour relations and public health or occupational health.

The Ministries which are represented in the Advisory Council are as follows :

- a. Ministry of Construction
- b. Ministry of Urban Development
- c. Ministry of Highways

- d. Ministry of Water Supply and Drainage
- e. Ministry of Irrigation
- f. Ministry of Housing
- g. Ministry of Vocational and Technical Training

The professional bodies represented in the council including the appointees of the Hon Minister

- a. Construction Industry Development Authority
- b. Institution of Engineers, Sri Lanka
- c. Sri Lanka Institute of Architects
- d. Institute of Quantity Surveyors
- e. Institute of Town Planners
- f. Association of Consulting Engineers
- g. Institution of Incorporated Engineers
- h. National Construction Association of Sri Lanka
- i. Chamber of Construction Industry
- j. Institution of Engineers
- k. Four members appointed by the Minister

The objectives for which the Advisory Council is setup are mentioned below :

- a. Formulate and amend the national policy on construction and its implementation mechanism
- b. Make representations to the Minister on any need for the development of the construction industry;
- c. Advise the Minister and make recommendations on any regulation to be made under this Act;
- d. Advise and make recommendations to the Authority on strategic issues, policies and legislative proposals that may affect or which is incidental or connected with the construction industry; and
- e. Propose measures to the Authority which are necessary for the development and sustenance of the construction industry.

### **3.4 Establishment of a Construction Industry Development Authority (CIDA)**

It was strongly felt the need of a proper institutional structure with proper powers and authority in order to facilitate and regulate all the activities relating to the Construction Industry.

The Institute for Construction Training and Development which had been functioning as a regulatory body in the Construction Industry has been transformed into a Authority giving wider mandate covering the entire spectrum of the Construction Industry.

The wider objectives for which the Authority is setup are as follows :

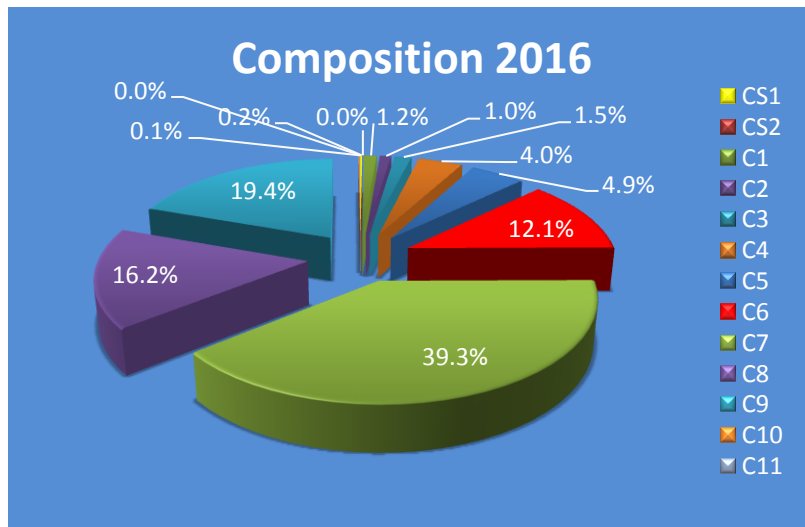
- a) To ensure the implementation of the National Policy on Construction in keeping with the directions issued by the Minister in that regard under section 3;
- b) To provide strategic leadership to the stakeholders of the construction industry to stimulate sustainable growth, reform and improvement of the construction sector;
- c) To register and renew such registration of the stakeholders of the construction industry as may be prescribed from time to time;
- d) To promote sustainable growth of the construction industry with special attention to the design and development of energy efficient buildings and structures;
- e) To promote appropriate research and dissemination and publication of research work on any matter relating to the construction industry and its development.
- f) To formulate, in consultation with other relevant authorities, the standards in construction industry and categorize such standards as compulsory and voluntary standards; and
- g) To implement the codes of conduct, practices, procedures and processes and documentations relating to construction industry as being formulated by the Authority.

### **3.5 Establishment of a dedicated fund for the Construction Industry**

The lack of funds for the capacity building of human capital, research and development and social well being of the craftsmen with the provisions of insurance and pension has been a major issue for the sustainable development of the Construction Industry.

The capacity building specially in relation to the small scale contractors who represent more than 60% of the registered contractors and construction craftsmen representing 70% of the construction workforce are extremely vital to ensure the completion of construction projects maintaining the targets in relation to the time, cost and quality.

#### Composition of registered Contractors



Source – Construction Industry Development Authority

#### Distribution of employers in the Construction Industry

Employment Category	Estimated Ratio
Professionals <sup>1</sup>	11.3
Technical <sup>2</sup>	11.9
Crafts and related fields <sup>3</sup>	70.8
Machine Operator <sup>4</sup>	6.0
<b>Total</b>	<b>100.0</b>

<sup>1.</sup> Includes Contractors, Administrators and Managers and all other professionals, Such as Engineers, Architects, Quantity Surveyors and Accountants

2. *Includes Technical Officers, Work Supervisors and Accountants, Draftsmen and Landscapers, Bookkeepers, etc*
3. *Includes Masons, Carpenters, Plumbers, Electricians, Steel Workers, Aluminium Workers etc.*
4. *Includes Heavy and Light Machine Operators and Mechanics*

*Source : Survey of Construction Industry Enterprises, December 2006*

For the purpose of establishing this fund, Act has made provisions for the imposition of the levy of cess to be called the Construction Industry Development Levy.

The levy is charged based on the value of the construction project. It is the responsibility of the client organizations to deduct the levy according to the value of construction project and remit it to Construction Industry Development Authority to be deposited in the Construction Industry Development Fund.

The fund will be dedicated to the following functions :

- a. Well being of the small scale contractors and self employed registered craftsmen
- b. Research and publication in field of related to Construction Industry
- c. Rewarding and encouraging the inventions, applications and propagation of environmentally friendly and cost efficient construction technologies
- d. Arranging long term insurance with pension benefits for craftsmen registered with the Authority who are not entitled to any other form of retirement benefits under any other law

### **3.6 Establishment of Construction Guarantee Fund**

One of the Major issues that contractors have been experiencing is the inadequate system of financing of contractors.

Small and medium contractors always find it difficult to submit the required bonds and guarantees as per the conditions of contracts as commercial banks which normally cater to this request often issue these bonds and guarantees only against large cash margins or against collateral in the form of immovable properties considering the construction as a very high

risk activity. In order to overcome this issue of small and medium scale contractors, Government has established a “Construction Guarantee Fund” allocating a seed money of 100 million.

The Construction Guarantee Fund is presently catering to the domestic construction industry by providing necessary bonds and guarantees and other financial facilities to the construction contractors without obtaining collateral relieving the small and medium contracts of the burden of submitting a collateral for obtaining of bonds and guarantees.

The fund is managed by a trust comprising of members representing the Government and Public Sector.

The unique arrangement of the Construction Guarantee Fund is not to take collateral but treat the project as a security and stringent measures are taken to maintain the financial discipline of the project and ensure/guarantee the employer the total project performance.

The Construction Guarantee Fund charge a nominal fee as percentage of a bond value ranging from 1% - 1.75% depending on the type of bond. This system has become a great relief to the contractors specially those falling into the category of medium and small scale.

### **3.7 Establishment of sector council on construction**

The Tertiary and Vocational Education Commission has established a sector council for different sectors comprising of leading experts who are potentially engaged in the sector, experiencing the real labour issues being experienced by the each industry. The sector council which is comprised of public sector officials and private entrepreneurs, identifies the type and number of skilled persons required and draw plans to achieve it in the form of a public private partnership in a shorter frame work.

The development of curriculum is also being carried out jointly catering to the type of skills required by the market and training programmes will also be conducted in the form of a public private partnership. In this approach, industry has to take a lead role for developing the skills required and numbers for the sustainability of the each sector.

The National Policy on Construction also spells out some policy directives on the enhancement of human capital, professionalism, efficiency and productivity of the human resources of the Construction Industry.

The major policy directives in relation to the development of human capital includes :

- i. prepare programmes to cater to manpower shortage in the industry,
- ii. improve the quality of performance of the professionals, technical officers and tradesmen,
- iii. promoting the IT use in the industry
- iv. recognition and image building of industry personnel
- v. encourage good practices and standards through codes of conduct.

The word “bass” being used in the native language for the mason and carpenter has connotation creating a social stigma which keep away the younger generation from becoming a mason or a carpenter fuelling the death of skilled manpower presently being experienced by the construction sector jeopardizing its growth momentum.

According to the Tertiary and Vocational Education Commission (TVEC) 2015 labour market information bulletin (LMIB), 65% of the unemployed population is without any vocational training. In numbers it amounted to 270,436 in that year.

### **3.8 Introduction of web based monitoring system of contractors to avoid cost and time overruns**

The time and cost overrun of the construction projects have become very common phenomenon in the Construction Industry due to several factors. The CIDA which is mandated for the registration of construction contractors has always been criticized for the lack of performance of the contractors.

For the completion of projects according to the cost and time targets, there should be a proper understanding and co-ordination between the three main parties to the contracts, namely client, consultant and contractor.



CIDA has recently introduced a mechanism called Web Based Monitoring System and it has already delivered a positive result creating a platform for enhancing interaction among the parties concerned. The web monitoring system being operated at present will immediately surface the issues relating to the project under construction, which enable respective party to act quickly and diligently ensuring the completion of the project sticking to the original cost and time target.

#### **4.0 Future Development for Construction Policy and Market**

The Government has introduced several major long term and short term measures in order to ensure the sustainable development of the construction industry identifying its huge potential for augmenting the economic growth uplifting the lives of the people.

As global market have since shown signs of revival, private housing construction segment in Sri Lanka could rebound strongly over the next five years. Many high rise luxury apartment complex which are already under construction will be added to the residential property market within the next 5 years. The hotel and travel industry is expected to perform well in the coming years resulting in increased hotel construction opportunities. Consulting and construction companies can expect higher workload with these projects coming on stream. The main supplies of materials such as cement, aggregate, steel, ceramic product, water supply pipes, electrical cables and fittings and other materials and equipments will benefit from this workload.

The industry stakeholders, while having those opportunities will also need to gear up to meet this new demands in the short term.

The Sri Lankan economy is ready to takeoff under the new Government creating a more market opportunities for the investors and suppliers. Several mega development projects including port city and Western megapolis development are in the offing creating a market for more investment opportunities in the forms of Design and Built and Build Operate and Transfer (BOT)

A new innovations in the field of construction have pushed the boundaries of the Construction Industry creating more opportunities shifting the traditional markets.

Advocating for new building materials and technologies which exceed the requirement of sustainability are more apparent and audible. The less labour intensive technologies are getting increasingly popular as a shortage of skilled labour threatens the sustainability of the Construction Industry.

## **5.0 Conclusion**

The Construction Industry is rapidly transforming due to the technological innovations and advancements making the future predictions very challenging and blurred.

The use of information technology in design and process development has elevated the Construction Industry into new heights increasing the productivity and efficiency.

The technological innovations may lead to the finding of solutions for the issues which industry has been facing for many decades retarding its sustainable development and growth.

The technological innovations revolutionize the Construction Industry pushing its boundaries creating more market opportunities for investors and developers.

The issues that most Asian Countries are experiencing at present are somewhat similar as world is becoming increasingly shrunk due to unprecedented advancements of science and information technology.

The boundaries separating the countries which were once very dominant are becoming unclear making a whole Asia, one community.

The Construct Asia which creates a platform for sharing of knowledge and experience will ensure building up of networks facilitating continuous and increased dialogue, leading to the creation of sustainable construction industry for Asia and globe.

# **The 21<sup>st</sup> Asia Construct Conference**

## **Country Presentation**

### **Sri Lanka**

**23 - 25 November, 2016**  
**Tokyo, Japan**

**Arch. H K Balachandra**  
**Director General**

**Construction Industry Development Authority**



# Sri Lanka

Located at the southern tip of India  
South Asia

Income level Lower middle income



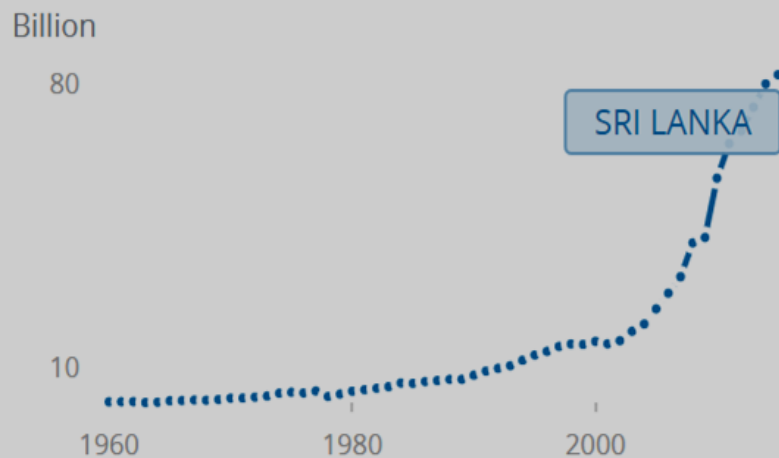
**GDP (current US\$)**  
**\$82..32 billion 2015**

**Population total**  
**20.97 million 2015**

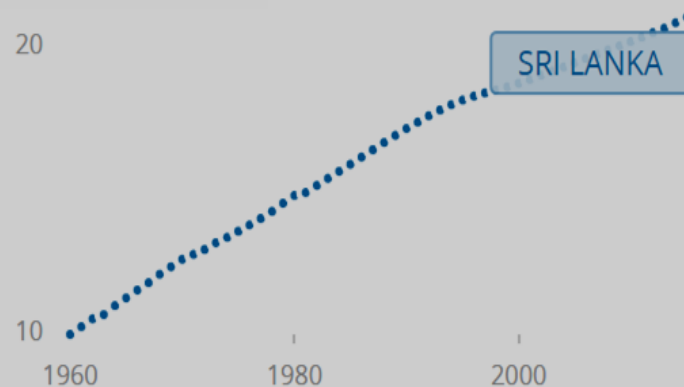
**Land area**  
**65,610 square km**  
**(sq.km)**

# Sri Lanka - Development Indicators

**GDP – current 2015 (US\$)**  
**82.316 Billion**

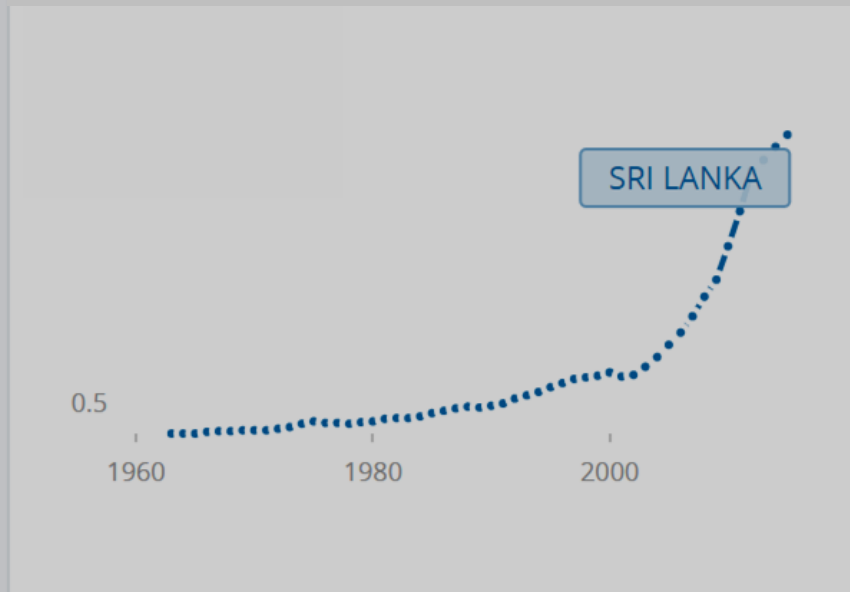


**Population 2015**  
**20,966 Million**

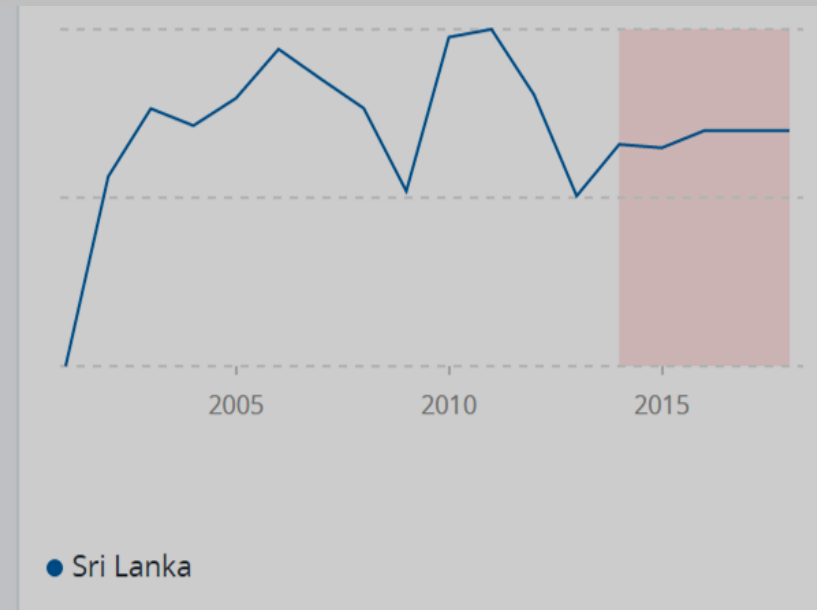


# Sri Lanka - Development Indicators

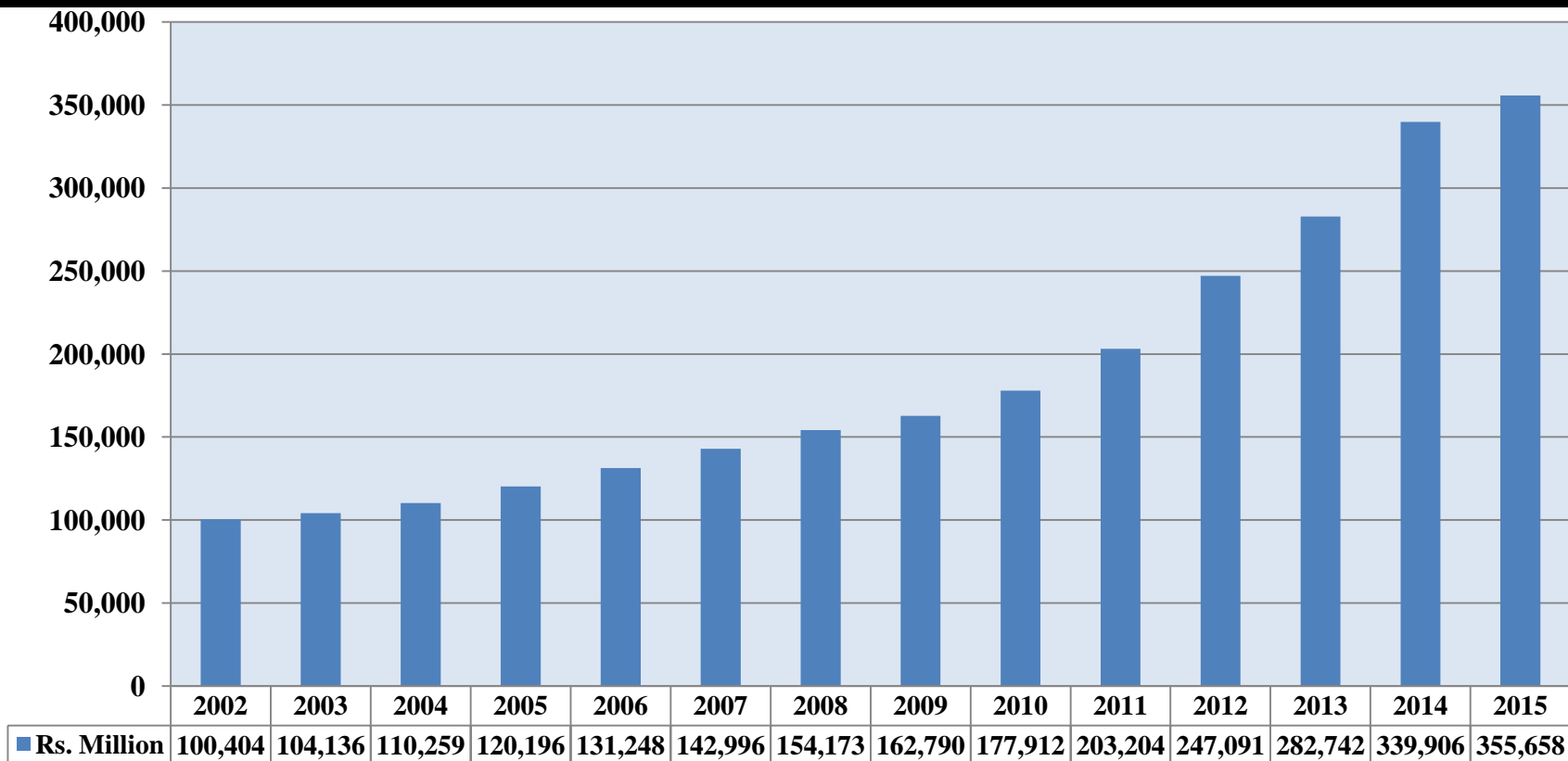
**GDP per capita – 2015 (US\$)**  
**3,800 thousands**



**Annual GDP – 2018**  
**5.3%**



# VALUE ADDITION BY THE CONSTRUCTION SECTOR TO GDP



Construction Sector has become a major value additor to the GDP mainly due to the implication of major infrastructure development projects such as expressways, highways, international ports and airports and housing schemes under the Janasevana Programme.





Multi purpose tower

Southern highway

**This massive growth was underpinned by the mega infrastructure development projects implemented by the Government and the increased investments by the private sector developers, particularly on hotel and housing construction**



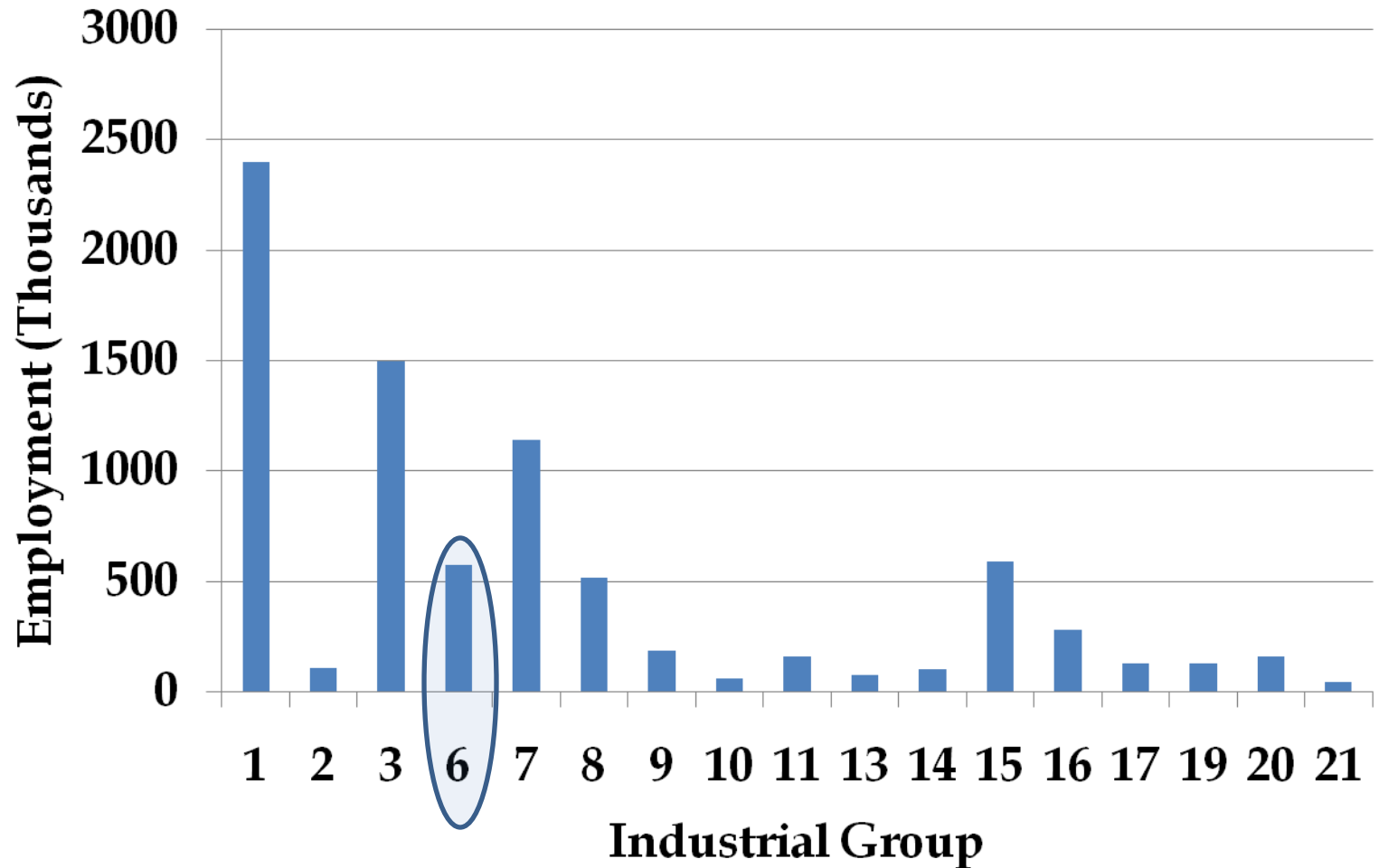
Mattala air port

Katunayake expressway

Hambantota port



# Employment by Selected Industrial Groups



Construction sector generates employment for over six hundred thousand people

## **Main issues with the construction industry**

- **Shortage of skilled labour :**

The scarcity of skilled craftsmen in the sector is one of the main challenges faced by local contractors. Less than five percent of construction workers in the country have been systematically trained and carry certificates that are indicative of their skill. Therefore, it is imperative that the government and the industry join hands and initiate an island-wide construction worker skill development programme via technical colleges to develop a strong structural base for the Sri Lankan Construction Industry through manpower training and development.

## **Shortage of skilled labour :**

- The composition of the GDP has shifted from agriculture to industry and services sector.
- Agriculture share of GDP declined from 20% to 11%.
- Share of the industry has increased from 27% to 33%.
- School curriculum technical education and vocational training programmes have not evolved adequately to meet changing demands, resulting in a large skill gap and mismatch in the local labour force.
- Lack of adequate skill is one of the major constraints in operating and growing business, third only to tax and regulation.

# COLOMBO PORT CITY



Colombo port city – massive development drive will transform the colombo creating more investment opportunities driving the economic growth of the metro polis





Availability of skilled work force will be the one of the most vital factors which Investors will take into consideration when making their investment decisions



# WESTERN MEGAPOLS DEVELOPMENT



Labour shortage presently being experienced will be further aggravated unless necessary policy reforms is introduced to over come the shortage of resources

# LABOUR PROJECTION FOR THE SRI LANKAN CONSTRUCTION INDUSTRY FOR NEXT FIVE YEARS

(Upto 2020)

## Segregation of Labour

NO.	DESCRIPTION			NUMBERS	
1	Unskilled			752,308	40.50%
2	Skilled Civil Masons Painters			460,115	24.77%
3	Carpenters & Fabricators			241,667	13.01%
4	Skilled MEP Plumbers Electricians			347,362	18.70%
5	Technical supportive staff			39,659	2.14%
6	Administrative support Staff			2,300	0.12%
7	Professionals (Approx, Projection)			14,139	0.76%
7.1	Project Managers	1,131	8%		
7.2	Architects	1,414	10%		
7.3	Civil Engineers	6,363	45%		
7.4	MEP Engineers	3,535	25%		
7.5	Quantity Surveyors	1,696	12%		
Total Human Resource Requirement				1,857,550.00	100%

**Note: This is only a future prediction**

*Source : 2006 budget and megapolis development plan*



Almost 97% of total persons employed were males with 75% falling in the 25-45 age-group. 52% were with experience of less than five years.

Modernize their training to acceptable levels to meet these emerging requirements.

Foreign employment placements in two major craftsmen categories of Masonry Technician and Electrical Technician have come down considerably recording more than a 40% drop.





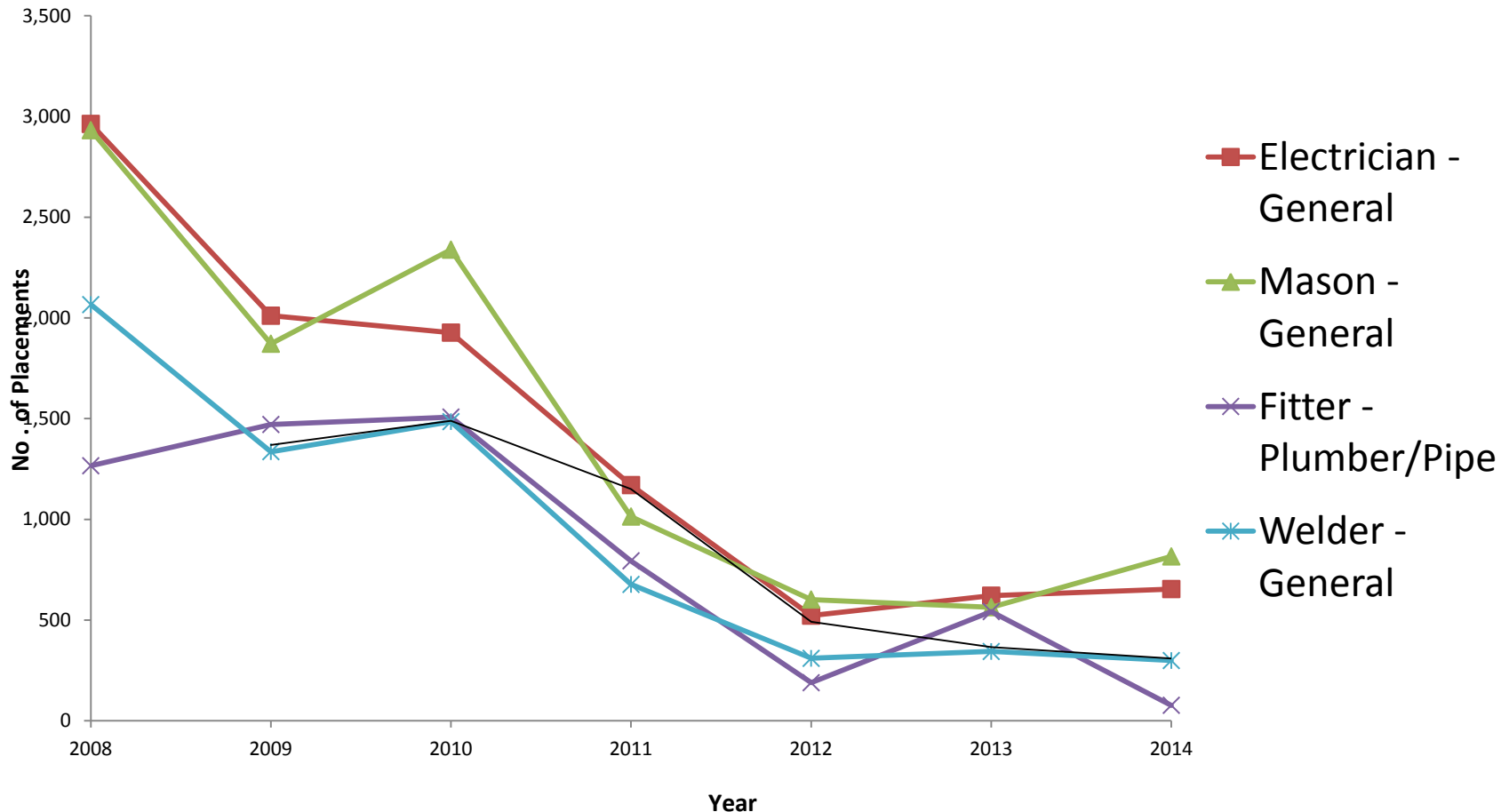
# Foreign Demand for Skill Construction Craftsmen

## Vacancies and Departure on Construction Craftsmen Abroad

Occupation	2013		2014		2015	
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Mason	2666	364	2505	816	1434	596
Carpenter	-	-	-	-	1309	516
Electrician	3548	621	3150	654	1437	-
Plumber	3126	342	3032	77	816	24
Welder	1341	344	1574	299	683	141
Painter	1028	296	1048	372	461	89

To satisfy the new and further training needs, public and private institutions should work hard and achieve expected goals. In addition to the local requirement, there is a foreign demand for construction workers, which amounts to an average of 15,000 annually.

# Trends in Selected Crafts & Related Worker Jobs



Considerable decline can be observed in foreign employment placement due to the employment opportunities created by the massive emerging growth in the construction sector .

# Do we spend enough on Skills Education ?

Ministry	Expenditure as % of GDP				
	2009	2010	2011	2015	2016
<b>Education</b>	1.65% (Rs. 80 Bn.)	1.53% (Rs. 86 Bn)	1.34% (Rs. 87.4 Bn)	0.55% (Rs. 62 Bn)	2.21% (Rs. 250 Bn)
<b>Higher Education</b>	0.37 % (Rs. 18.1 Bn)	0.32% (Rs. 18 Bn)	0.28% (Rs. 18.8 Bn)	0.39% (Rs. 45 Bn)	0.53% (Rs. 60 Bn)
<b>YA &amp; SD and other skills dev. Agencies</b>	0.1% (Rs. 7.9 Bn)	0.1% (Rs. 7.9 Bn)	0.13% (Rs. 11.5 Bn)	0.09% (Rs. 10 Bn)	0.18% (Rs. 20 Bn)

# Reluctance of young generation to join the Construction Industry

## The image of industry :

The construction industry has been classified as a 3D industry (Dirty, Difficult, Dangerous)

It is required to transform the industry image from 3D to 3P. (Professional, Productivity and Progressive industry)

## Recognition and rewarding of construction craftsmen “

It was started with the goal of promoting youth from island wide to enter into the industry and encourage skills enhancement among construction workers, who are already in the trades.

## Assessment of Craftsmen for national Awards



**More than 6000 craftsmen participated enthusiastically for craftsmen assessment programme conducted island-wide**

# Scarcity of construction Materials

Construction Industry depends on mainly materials, equipment, labour, finance and time constraints.

The Sri Lanka Construction Industry still use the traditional materials of bricks, sand and lime creating negative environmental impacts. Several attempts to introduce alternative materials have not yielded the expected results as it is customary to resist the change.

The continuous usage of river sand as one of the main construction materials have already created many negative environmental impacts. Demand for sand will continue to rise with the emerging developments. Excessive mining to meet the demand may create severe stress on the ecological systems resulting following consequences :

- Lowering of river beds allowing sea water inclusion, polluting ground water sources
- The lowering of water table near rivers which in turn lowers water levels in wells
- The drying up of irrigation channels
- The increased instability of the banks and collapsing of river banks

Types of Sand	Annual availability Cu. (2014)
River sand	3,673,200
Off-shore sand	33,815
Land based sand and Dune	477,540
Manufactured sand	Not available in the market

## **Quality of Materials**

There are many numbers of forged, poor quality construction materials and components in the market. There is a national need of formulating a quality controlled construction material manufacturing/import industry and building codes, in order to develop and improve quality standards of construction sector in Sri Lanka. For this, building codes covering all the aspects of the industry such as design, construction, maintenance etc. would be much useful in achieving the desired results in the act of building.

## **Lack of investment specially foreign direct investment in infrastructure development, creating a sluggish market**

Sri Lanka has been ranked 107 in the doing business index and several factors which are not much favourable from the point of investment have contributed to lower ranking in the index.

Lack of consistent policies, too many regulations, complex institutional structure, lengthy procedures and complicated tax structure with less transparency are the key factors which create unfavourable climate for the foreign direct investment.

The present Government which came in to power in the year 2015 has already introduced several policy and regulatory changes for the creation of a favourable climate for the foreign investors ironing out bottle necks which have hindered the attraction of investors shrinking the market.

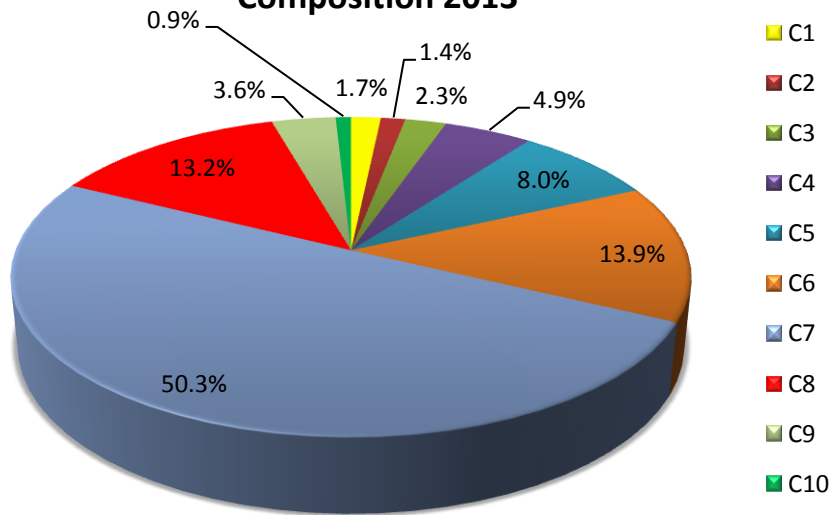
## Specialty vs No. of Contractors - 2015

Specialty	No of Contractors in 2015	% per Total Contractors
Building Construction	2650	99.47%
Highway Construction	2560	96.10%
Irrigation & Land Drain	2465	92.53%
Water Supply & Drainage	2449	91.93%
Dredging & Reclamation	2368	88.89%
Bridge Construction	2095	78.64%
Storm Water	210	7.88%
Groynes & Revetments	56	2.10%
Other Heavy Construction	5	0.19%
<b>Total Contractors</b>	<b>2664</b>	



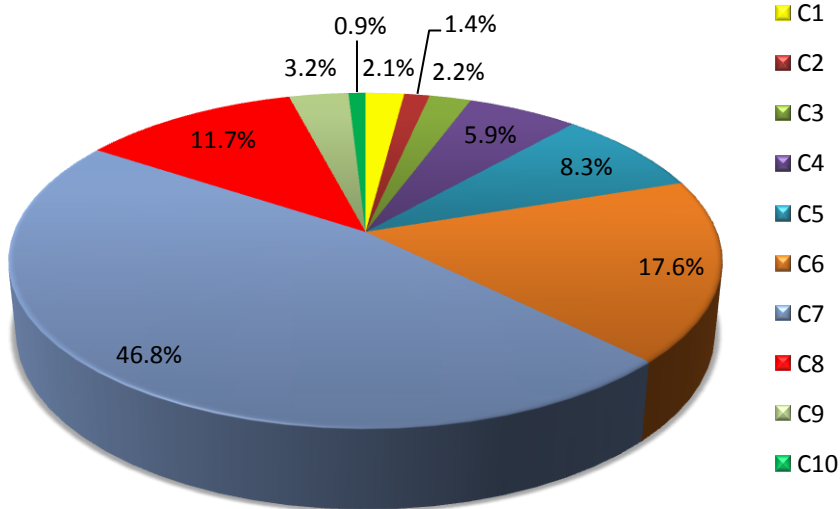
# Inadequate access to the financial resources

**Composition 2013**



Most of the contractors falling in to the category of small and medium scale have very limited access to the loans and other financial requirements due to their incapacity to submit the elaborative securities and guaranties required by the financial institutions.

**Composition 2014**



This is because many of the large scale construction projects are Government initiated and many contractors often face delays in receiving payment from such projects. As a result, the sub contractors and other entities face financial difficulties, which adversely impacts suppliers of materials and ability to scale up. Payment concerns need to be addressed by arranging specialized financial assistance aiming at development of the industry.

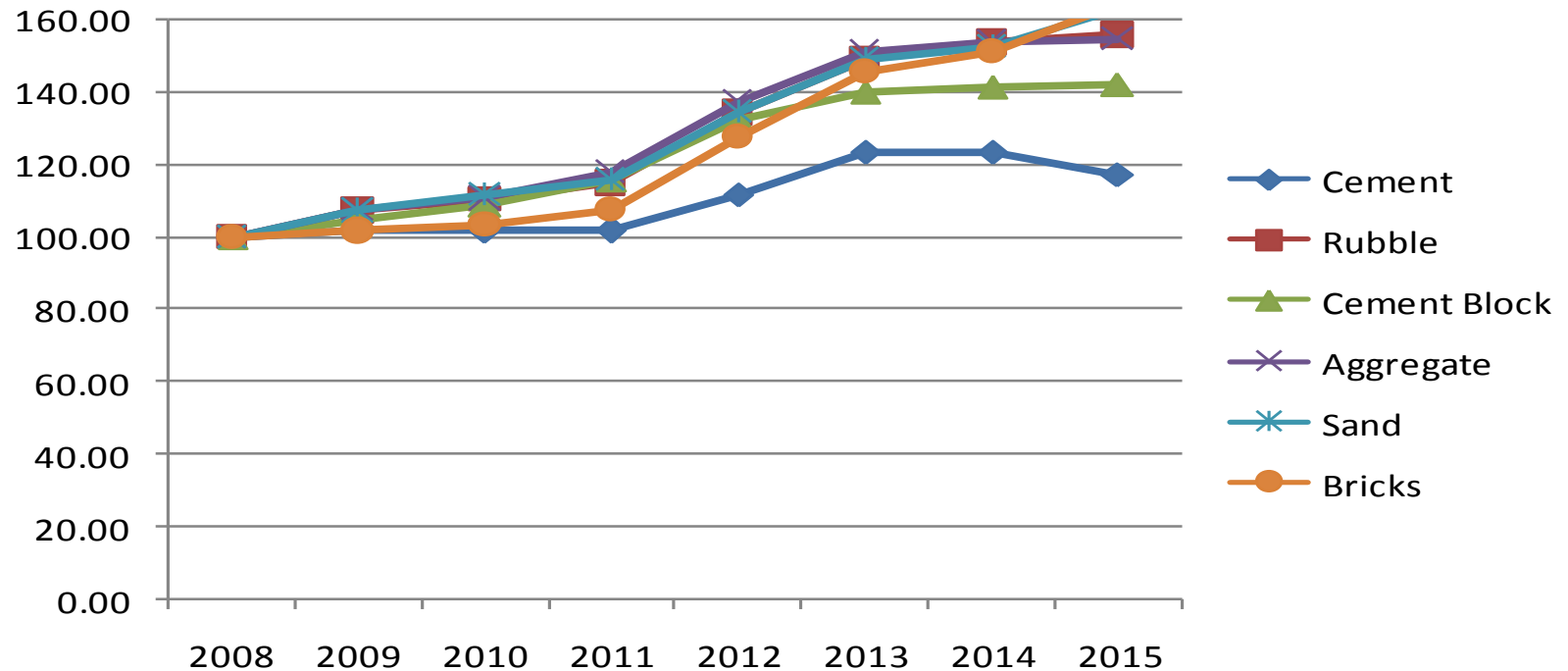
# Construction material prices and indices

Material price indices compiled by the ICTAD reflect that the material prices have increased at a moderate pace from the year 2008 to 2011. But with the launching of massive development drive by the Government in the post war environment, the material prices have gone up dramatically due to the robust increased in demand.

Material	2008	2009	2010	2011	2012	2013	2014	2015
Lime	100.00	103.94	105.36	106.85	110.35	121.10	125.20	126.54
Reinforcement	100.00	81.90	83.66	91.68	98.89	99.33	99.33	99.33
Asbestos Roofing Sheet	100.00	102.46	107.47	119.68	141.31	148.25	154.15	154.15
PVC	100.00	104.05	106.36	107.70	122.57	127.52	127.52	127.52
Timber	100.00	103.18	104.13	116.26	131.61	140.84	141.70	141.70
Glass	100.00	102.90	104.81	108.23	121.45	141.09	143.43	146.19
Wall Paint	100.00	106.31	109.32	112.96	127.53	133.40	133.39	134.56

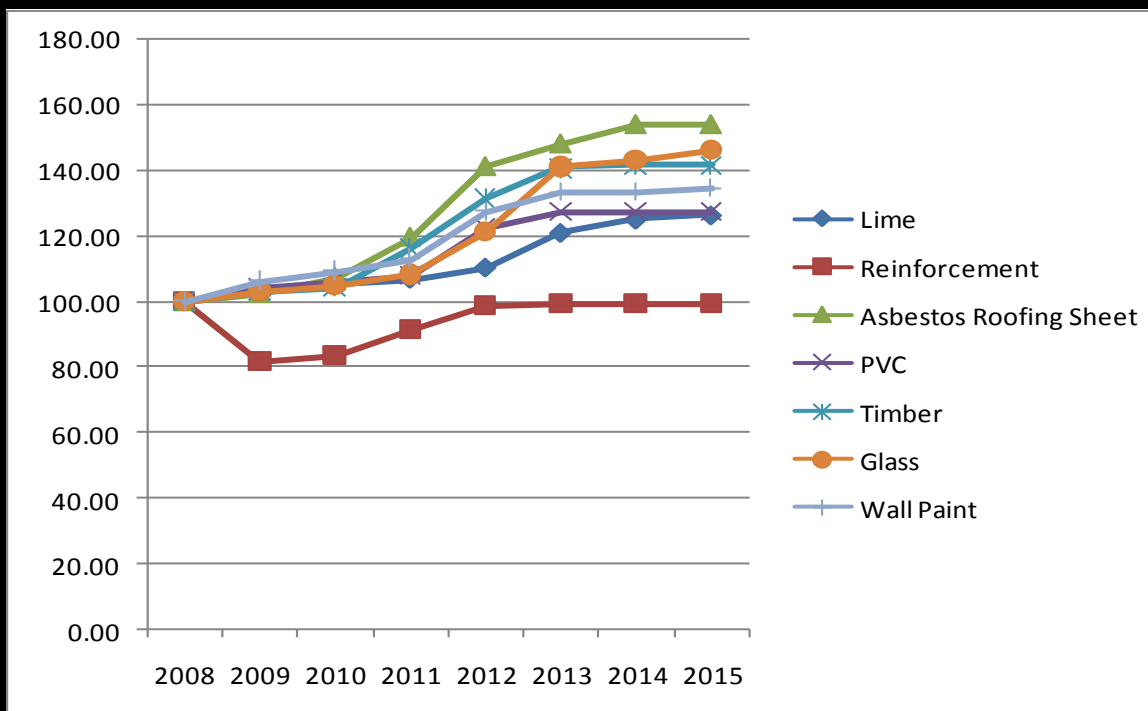
# Fluctuation of Prices of Construction Inputs Reflected by Indices

**Fluctuation of Prices of Construction Inputs Reflected by Indices**



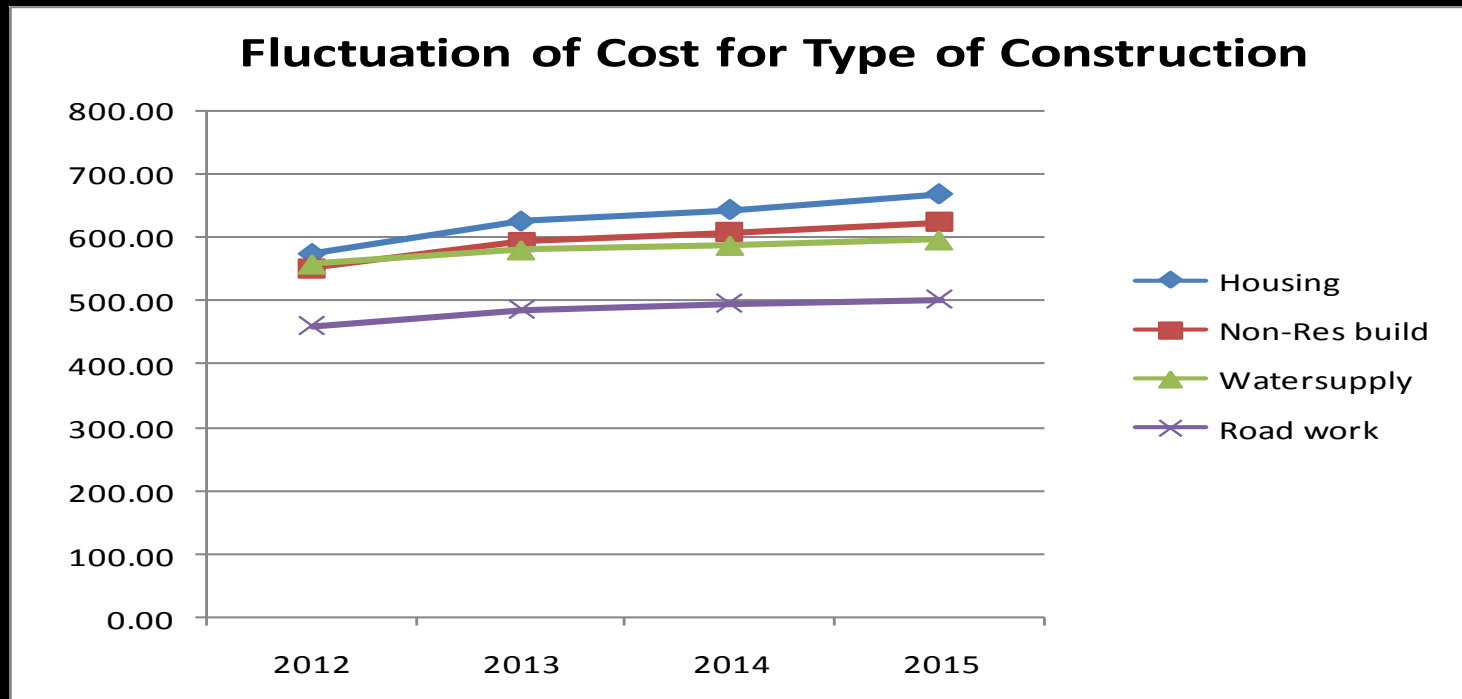
Material	2008	2009	2010	2011	2012	2013	2014	2015
Cement	100.00	101.82	101.55	101.55	111.51	123.42	123.42	117.15
Rubble	100.00	107.02	110.16	114.81	134.28	149.12	153.69	155.72
Cement Block	100.00	104.76	108.73	115.83	132.48	140.03	141.53	142.24
Aggregate	100.00	107.38	110.52	118.04	137.19	150.79	153.66	154.47
Sand	100.00	107.14	111.86	115.87	134.42	149.29	152.58	163.13
Bricks	100.00	101.67	103.54	107.58	127.78	145.47	151.07	164.27

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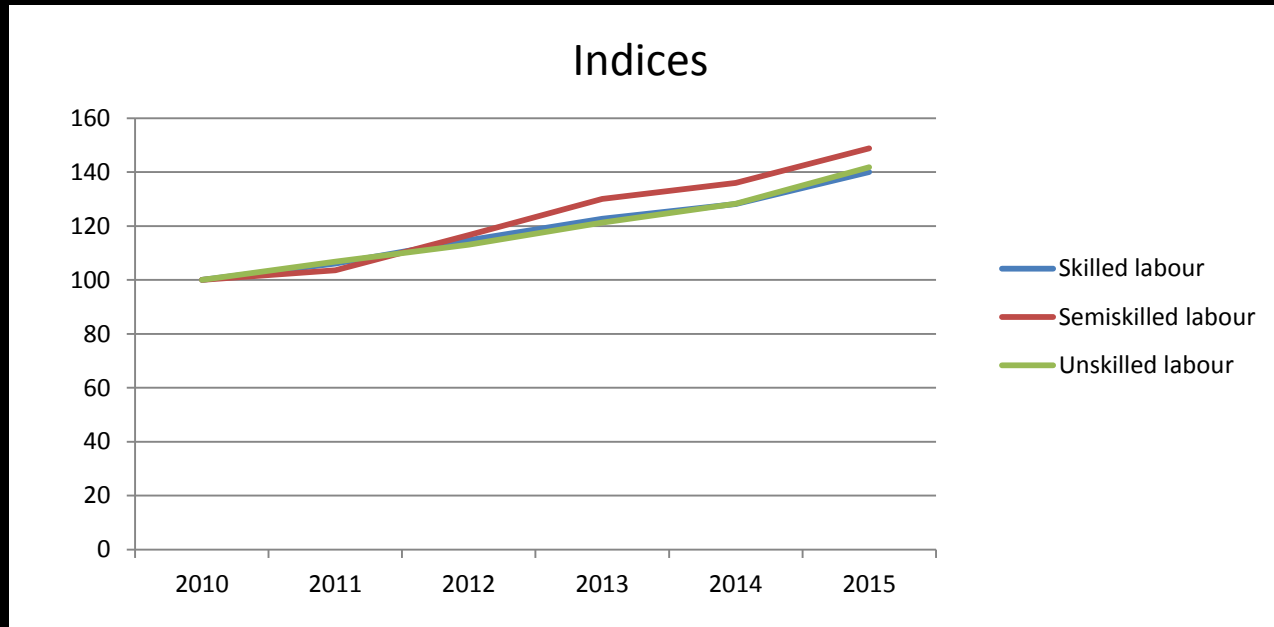
# Continuous increase of labour wages due to scarcity of skilled craftsmen



## Labour wages

Daily wages of the construction sector employees increased by an average rate of 10.2% during the year 2013. Daily wages for carpenters and masons in the construction sector increased by 8.0% and 8.1% respectively, compared to an increase of 12.4% and 11.9% respectively in 2012.

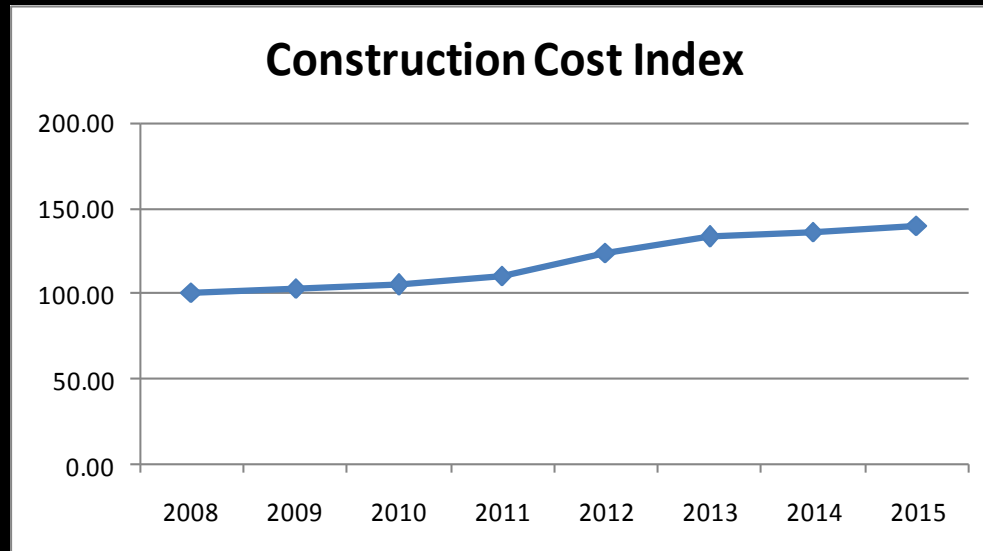
# Labour wages are increasing at a rapid pace making the project cost escalated



Labour category	Indices		
	Skilled labour	Semiskilled labour	Unskilled labour
2010	100.00	100.00	100.00
2011	106.08	103.61	106.85
2012	114.80	116.65	113.14
2013	122.71	130.02	121.31
2014	128.12	135.99	128.30
2015	140.03	148.84	141.84

# Construction cost

The cost of construction is going up continuously. This is evident in the construction cost index compiled by the ICTAD. The unit cost has been escalating due to price increase in major construction materials, labour, machinery and fuel.



	2008	2009	2010	2011	2012	2013	2014	2015
Construction Cost Index	100.00	102.59	104.76	110.38	123.86	132.75	135.99	139.68

Due to the escalation of material and labour prices resulting the increase of construction cost, has made the recently built condominium less affordable to the lower middle income categories .

# **Inadequate system for financing of contractors**

## **Fiscal measures to be extended to contractors**

Small and medium Contractors and entrepreneurs in the construction sector is treated in a low priority by most of the financiers in Sri Lanka. Presently 95% of Construction Contractor population is represented by these S & M categories.

Due to the risks associated with the industry and frequently reported delays in payments by the clientele has been a bane to the expected growth in this sector.

Commercial banks should take meaningful steps for equip themselves to be able to efficiently apprise the need to finance construction contracts in respect of project financing, re-scheduling of outstanding loans and reduction of interest to comparable rates.



# Quite slow nature of introduction of innovative materials and construction methods

The supply of energy to the increasing demand is becoming more and more serious

The building sector consumes 40% of energy emitting 30% of green house gases

It is increasingly required to introduce environmentally friendly technologies encouraging the use of renewable energy sources leading to the substantial reduction in energy usage and demand

Sharing of knowledge and transferring of technologies in the field of energy conservation and use of renewable energy is very appropriate at this juncture

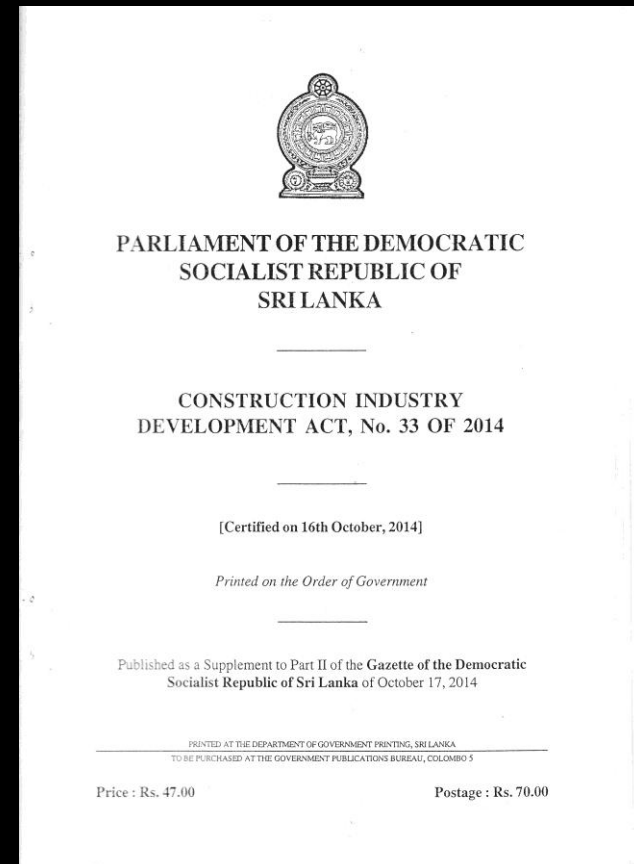
Slow growth in technology transfers in FDIs and other Donor Funded projects has reduced equitable sharing of global technological advances and their applications in raising the standards of the industry.

# Efforts made according to the conditions surrounding the construction Industry

Establishment of the legal frame work ,policy frame work and institutional frame work are the major reforms introduced for the achievement of a sustainable construction industry

## Establishment of legal framework through the Enactment of Construction Industry Development Act No. 33 of 2014

The Construction Industry Development Act. No. 33 of 2014 was enacted by the Sri Lanka Government making provisions for development of the Construction Industry in Sri Lanka publishing rules and regulations creating a environment where all stakeholders can play their respective roles in co-ordinated, integrated and inclusive manner ensuring its sustainable growth.



# National Policy on Construction

- ❖ National Policy on Construction has been formulated setting eighteen policy elements to be implemented by the public and private sector ensuring the productive and efficient participation of all the stakeholders of the Construction Industry.
- ❖ Policy will provide the strategic direction and integrated and cohesive approach ensuring the increased participation of all stake holders ensuring inclusive growth of the Construction Industry.
- ❖ Policy consists of eighteen policy elements which cover the entire spectrum of the construction industry.

# Establishment of the Construction Industry Development Authority

It was strongly felt the need of a proper institutional structure with proper powers and authority in order to facilitate and regulate all the activities relating to the Construction Industry.

Authority has been given wider powers to regulate , standardize and uplift the construction industry covering all aspect of construction ensuring its sustainable growth

## Establishment of a dedicated fund for the Construction Industry

- ❖ The act has made provisions for the imposition of the levy to be called construction industry Development Levy
- ❖ The levy is based on the value of the construction projects and client will deduct it at the time of settling the bills and send it to the Authority
- ❖ The fund so collected will be invested for the development of the Industry and the main areas where fund will be spent is also elaborated in the Act

# Establishment of the National Advisory Council on Construction

Powerful body comprising of all the Ministries involved in construction and Professional bodies representing the construction industry

The objectives for which the Advisory Council is setup are mentioned below :

- ❖ Formulate and amend the national policy on construction and its implementation mechanism
- ❖ Make representations to the Minister on any need for the development of the construction industry
- ❖ Advise the Minister and make recommendations on any regulation to be made under this Act
- ❖ Advise and make recommendations to the Authority on strategic issues, policies and legislative proposals that may affect or which is incidental or connected with the construction industry

# Construction Industry Development Fund will facilitate the implementation of following :

- ❖ Well being of the small scale contractors and self employed registered craftsmen
- ❖ Research and publication in field of related to Construction Industry
- ❖ Rewarding and encouraging the inventions, applications and propagation of environmentally friendly and cost efficient construction technologies
- ❖ Arranging long term insurance with pension benefits for craftsmen registered with the Authority who are not entitled to any other form of retirement benefits under any other law

# Establishment of sector council on Construction



The sector council which is comprised of public sector officials and private entrepreneurs, identifies the type and number of skilled persons required and draw plans to achieve it in the form of a public private partnership in a shorter frame work.

In this approach Industry has to take a lead role for developing the skill and numbers required for the sustainable construction Industry

Driven more by the private sector identifying the type and level of skills required to implement the projects ensuring the productivity enhancement and efficient delivery meeting the targets relation to cost time and quality

# **Recommendations to develop Human Resource Capabilities and Capacities in the Construction Industry**

## **Promote and Enforce Use of Skilled Labour**

- The Government of Sri Lanka has recently enacted a new Act of Construction Industry Development.
- Under the provisions of this Act all the construction craftsmen working in the field of construction should have the Identity Cards indicating their levels of competency and skills.
- Those Craftsmen who have been in the field without any formal vocational training, obtain these Identity Cards proving their skills at the assessment conducted by the Construction Industry Development Authority (CIDA) under the RPL assessment system.
- NVQ qualifications will be made mandatory for the craftsmen going abroad to work as construction craftsmen.



# Training of Craftsmen (Mason ) on site to bridge gap between supply and demand





## Technology & Research Promotion

- **As Per CID Act part III, 13 (30)**
- Sri Lankan Construction Industry, for many years has been relying on traditional technologies comprised of conservative construction methods and materials. However, it is required to develop and innovate new technologies to obtain higher productivity, while mitigating negative environmental impacts and reducing high construction costs.
- Development of policy recommendation document on Alternative for River Sand;  
  
Task force established by the Ministry to ensure the speedy implementation of the recommendations .  
Report of the Task force is being prepared.
- **Promoting of Research**
- Research Council was established, with members of NSF, NBRO,NERDC,NCASL,CCI,IDB,SLIA,IESL,IQSL,UOM, UOP, UOR, UOJ, COSTI.
- Two Brain Storming sessions were conducted & research requirements of Construction Industry were identified.
- A decision taken to collect available research papers already published for converting into commercial viable products /processes.



#### 4. Registration of Construction Materials & Component Suppliers

##### Documents Prepared (Materials & Component Suppliers)

Complete set of documents require for commencing Material Suppliers registration has been compiled, as per Act part VI,43)

Registration of Construction Material and Suppliers programme will commence soon ensuring the quality of materials at market as the market is flooded with low quality materials

Initially registration will be done for identified set of materials.

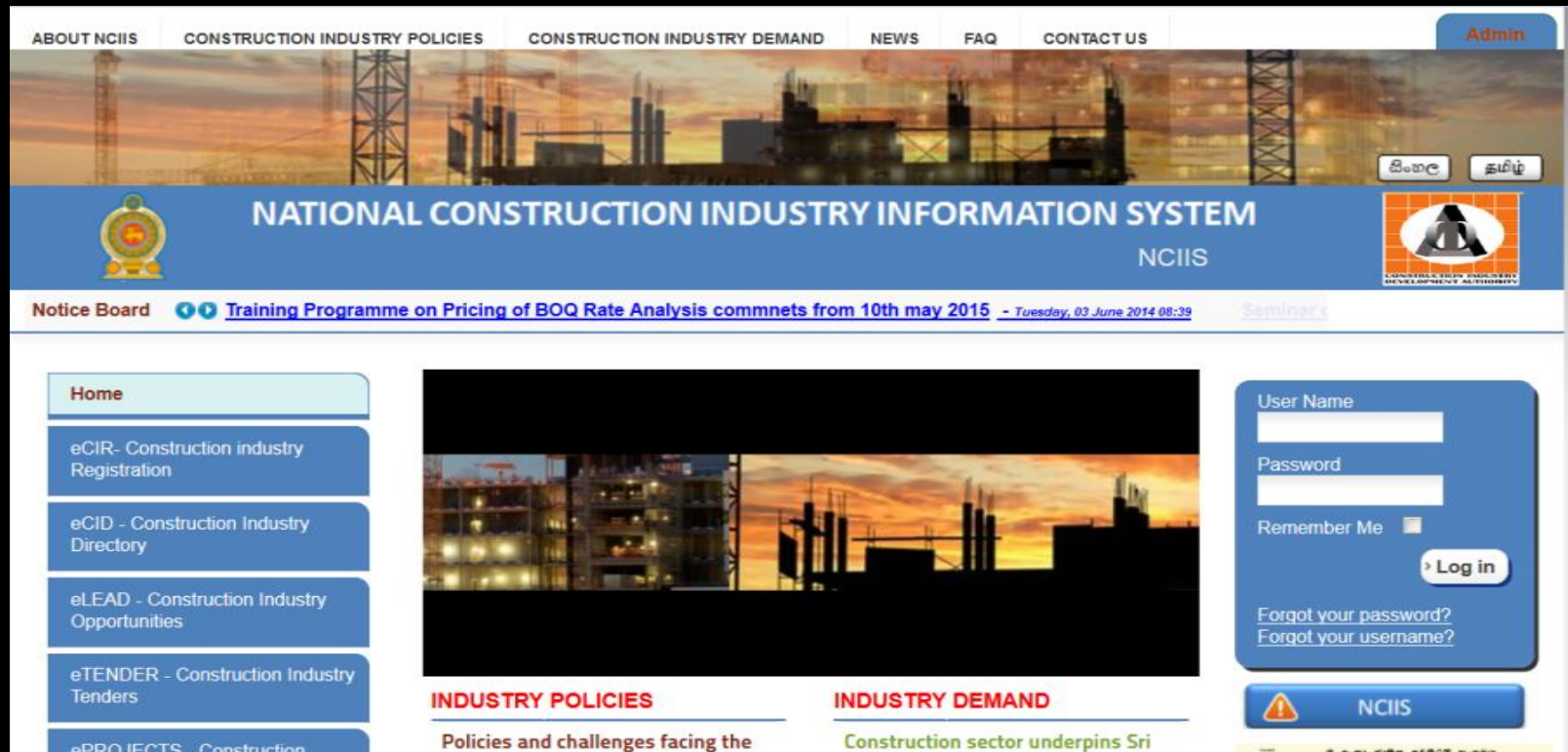


## 2. National Construction Industry Information System (NCIIS)

(web portal of Information Secretariat established or per the CID Act. Part XI- 55)

Completed the process of design NCIIS

- To establish Collecting data mechanism for processing/ to publish gazette notification.



# Future Development for Construction Policy and Market

The Sri Lankan economy is ready to takeoff under the new Government creating a more market opportunities for the investors and suppliers. Several mega development projects including port city and Western megapolis development are in the offing creating a market for more investment opportunities in the forms of Design and Built and Build Operate and Transfer (BOT)

The technological innovations revolutionize the Construction Industry pushing its boundaries creating more market opportunities for investors and developers

The issues that most Asian Countries are experiencing at present are somewhat similar as world is becoming increasingly shrunk due to unprecedented advancements of science and information technology.

The boundaries separating the countries which were once very dominant are becoming blurred making a whole Asia, one community.

The Construct Asia which creates a platform for sharing of knowledge and experience will ensure building up of networks facilitating continuous and increased dialogue, leading to the creation of sustainable construction industry for Asia and globe.

Thank you.