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# CONSTRUCTION SECTOR IN INDIA: RATIONALE BEHIND PHENOMENAL INCREASE IN EMPLOYMENT DURING FIRST DECADE OF THE 21ST CENTURY

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## ABSTRACT

*The construction industry is the second largest industry of the country after agriculture. It makes a significant contribution to the national economy and provides employment to large number of people. Indian Construction has accounted for around 40 per cent of the development investment during the past 50 years. At present around 10 per cent of the nation's working population depends on construction for its livelihood. The Indian construction industry employs around 44 million people. Construction sector witnessed a massive increase in employment. During 1999-2000 there was 17.54 million workers were employed in this sector, which increased to 26.02 million in 2004-05. Employment has increased 8.48 million workers at the rate of 6.80 per cent. But during 2004-05 to 2009-10 employment has increased 18.06 million at the growth rate of 12.29 per cent in spite of recession period of 2008. The paper has discussed the decadal change in construction sector growth and employment during 1999-2000 to 2009-10 and to find out the possible reasons for increase the growth and employment in construction sector in India. Data on Employment in different sectors shows that after industry and manufacturing sector, construction sector occupies third place in total employment. Now the question is why the employment is increasing. What are possible reasons/factors for it? The entire study is dwelling around to answer this question "Why". With literature survey, secondary data and consultations with associations, & experts in this sectors and enterprises/contractors, officials of the Government departments, the study traced out the possible reasons and factors for increase in employment in construction sector.*

**Key words: Construction, Employment, Growth, Housing, Infrastructure, Sectors**

## 1. Background

The Indian construction industry is one of the big industrial sectors which give livelihoods many semi-skilled and unskilled labourers. The construction industry is the second largest industry of the country after agriculture in terms of volume of employment opportunity. The sector makes a significant contribution to the national economy and provides direct and in-direct employment to large number of people. Recent years the sector has moved towards the use of various new technologies and deployment of project management strategies which lead to undertake projects of mega scale. In its path of advancement, the industry has to overcome a number of challenges. However, the industry is still faced with some major challenges, including housing, disaster resistant construction, water management and mass transportation. Recent experiences of several new mega-projects are clear indicators that the industry is poised for a bright future (Laskar and Murthy, 2004).

Indian Construction has accounted for around 40 per cent of the development investment during the past 50 years. At present around 10 per cent of the nation's working population depends on construction for its livelihood. The Indian construction industry employs around 44 million people. The total market value of under-construction projects in India has crossed the $100-billion mark for the first time in 2010. The industry is expected to become 120 billion dollars in size by 2012. In the latter part of the decade (2000s), the working force moved away from agriculture was absorbed as unskilled ones in construction sector (Wikipedia, 2015)

Construction accounts for nearly 65 per cent of the total investment in infrastructure and is expected to be the biggest beneficiary of the surge in infrastructure investment over the next five years. Investment in construction accounts for nearly 11 per cent of India’s Gross Domestic Product (GDP). €239.68 billion is likely to be invested in the infrastructure sector over the next five to 10 years – in power, roads, bridges, city infrastructure, ports, airports, telecommunications, which would provide a huge boost to the construction industry as a whole.

Investment into this sector could go up to €93.36 billion by 2010 (Indo –Italian Chamber of Industry, 2008).

The Indian economy was, on the whole, largely unaffected by the global economic slowdown. It has been riding a high growth curve, relying primarily on domestic consumption and services growth. Gross Domestic Product (GDP) is forecast to increase by 8.6 percent in 2011 compared to 7.4 percent in 2010 and the expectation is that the Indian economy will see double digit growth. Construction sector alongside telecommunications, infrastructure and financial services contributed for this growth of the economy (Warburton, 2011)

## 2. Objectives

1. The study has been conducted in view of following broad objectives:
2. To study the decadal change in construction sector growth and employment during 1999-2000 to 2009-10 in India;
3. To find out the possible reasons for increase the growth and employment in construction sector in India.

## 3. Methodology

The study is mainly based upon the secondary data from NSSO; CSO; Ministries/Departments; Industry associations like FICCI, ASSOCHAM, CII; Sector specific associations; etc. In addition to it, various reports/documents pertaining to labour regulations, industrial policy, sectoral lending pattern of banks/financial institutions, also examined.

The decade of 1999-2000 to 2009-10 is especially chosen for the analytical study as during this period the world economy as well as Indian economy was undergone a recession. The growth of the all sectors of the Indian economy has slowed but the growth in the construction sector was registered a significant increase in both terms of output and employment

## 4. Growth of Employment in Construction Sector in India.

Data on Employment in different sectors shows that after industry and manufacturing sector, construction sector occupies third place in total employment. During 2009-10 Industry sector

employed 100.7 million persons (21.9 per cent) followed by manufacturing sector 52.4 million (11.4 per cent) and construction sector 44.2 million (9.6 per cent). Employment has increased in all sectors and share in GDP has also increased except mining and electricity (Table 1).

**Table 1**

**Employment in the Industrial Sector**

| Sectors | Persons employed (million) | | | Share in employment (%) | | | Share in GDP (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1999-2000 | 2004-05 | 2009-2010 | 1999-2000 | 2004-2005 | 2009-2010 | 1999-2000 | 2004-05 | 2009-2010 |
| Mining | 2.3 | 2.6 | 2.9 | 0.6 | 0.6 | 0.6 | 3.0 | 2.9 | 2.3 |
| Manufacturing | 43.8 | 56.1 | 52.4 | 11.0 | 12.2 | 11.4 | 15.1 | 15.3 | 16.0 |
| Electricity | 1.0 | 1.2 | 1.3 | 0.3 | 0.3 | 0.3 | 2.3 | 2.1 | 2.0 |
| Construction | 17.5 | 26.1 | 44.2 | 4.4 | 5.7 | 9.6 | 6.5 | 7.7 | 7.9 |
| Industry | 64.6 | 85.9 | 100.7 | 16.2 | 18.7 | 21.9 | 26.9 | 27.9 | 28.1 |

Source: Economic Survey 2011-12

Note: 1.The number has been derived applying NSSO segment-wise workers population ratios and Labour force participation rates to the population.

1. Employment as per usual principal and subsidiary status (UPSS) basis

Construction sector witnessed a massive increase in employment. During 1999-2000 there was 17.54 million workers were employed in this sector, which increased to 26.02 million in 2004-05. Employment has increased 8.48 million workers at the rate of 6.80 per cent. But during 2004-05 to 2009-10 employment has increased 18.06 million at the growth rate of 12.29 per cent in spite of recession period of 2008.

Analysis of data further revealed that share of total employment in organized and unorganized sector was 26.34 per cent and 77.66 per cent respectively in 1999-2000. Percentage share of employment in organized construction has been decreased from 26.34 per cent to 24.44 per cent during 1999-2000 to 2004-05 while employment in organized sector has increased from 24.44 to 33.85 per cent during 2004-05 to 2009-10. During 2009-10 difference between employment in organized and unorganized has been reduced substantially. It indicates that construction activities in organized sector have been increased massively in spite of recession period (Table 2).

**Table 2**

**Number of workers (millions) in construction activities in India by Sector**

| Sl. No. | Sector | Year | | |
|---|---|---|---|---|
| | | **1999-2000** | **2004-05** | **2009-10** |
| 1. | Organised | 4.62<br>(26.34) | 6.36<br>(24.44) | 14.92<br>(33.85) |
| 2. | Unorganised | 12.92<br>(77.66) | 19.66<br>(75.56) | **29.16**<br>(66.15) |
| 3. | **Total** | **17.54**<br>**(100.00)** | **26.02**<br>**(100.00)** | **44.08**<br>**(100.00)** |
| 4. | **Total Workers in all sectors** | 396.76<br>(100.00) | 457.46<br>(100.00) | 460.22<br>(100.00) |
| 5. | Organised | 54.12<br>(13.64) | 62.56<br>(13.68) | 72.88<br>(15.84) |
| 6. | Unorganised | 342.64<br>(86.36) | 394.90<br>(86.32) | 387.34<br>(84.16) |

Source: Report on "Working Group on creating employment in the 12th Plan", Planning Commission, 2011, New Delhi.
Note: Figures within parenthesis shows percentage to total.

Table 3 shows that employment elasticity has been increased from 0.78 to 1.19 from the period 1999-2000 – 2004-05 to 2004-05 – 2009-10. Growth rate of employment has also increased from 8.21 per cent to 11.12 per cent during the period 1999-00 – 2004-05 to 2004-05 – 2009-10. But in spite of double increase in growth rate of employment and employment elasticity, Compound Average Growth Rate (CAGR) of Gross Value Added (GVA) in this sector has not been increased but decreased during the period 1999-00 – 2004-05 to 2004-05 – 2009-10. CAGR of GVA was 8.90 per cent during 1999-00 – 2004-05 while it decreased to 7.64 per cent during 2004-05 – 2009-10 periods.

**Table 3**

**Employment Elasticity and Sectoral Share of Employment & GVA in Construction Sector in India**

| Sl. No. | Items | Year | | |
|---|---|---|---|---|
| | | 1999-2000 | 2004-05 | 2009-10 |
| 1. | Employment (Millions) | 17.54 | 26.02 | 44.08 |
| 2. | Employment Elasticity | - | 0.78 (1999-00 – 2004-05) | 1.19 (2004-05 – 2009-10) |
| 3. | Growth Rate of Employment (CAGR) | - | 8.21 (1999-00 – 2004-05) | 11.12 (2004-05 – 2009-10) |
| 4. | Growth Rate of GVA (CAGR) | - | 8.90 (1999-00 – 2004-05) | 7.64 (2004-05 – 2009-10) |
| 5. | Sectoral Share Employment 2.GVA | - | 4.4 6.4 | 9.58 7.7 |

Source: Report on "Working Group on Creating Employment in the 12th Plan", Planning Commission, 2011, New Delhi.

As per the industry classification of National Accounts Statistics, Indian economy broadly comprises of six sectors. These are: Agriculture, forestry and fishing; Mining and Quarrying; Manufacturing; Electricity, gas and water supply; Construction and Services. Based on the NSSO employment-unemployment survey 2009-10 it has been analyzed that growth rate (both in terms of employment and GVA) of the six sectors are negative in the second half of this decade (2004-05 to 2009-10) excepting construction and mining and quarrying. Table 4 presents the descriptive analysis of the sectors in terms of their Gross Value Added (GVA) growth, employment growth and employment elasticity between 1999-00 and 2009-10.

**Table 4**

**GVA growth, employment growth and employment Elasticity by sectors**

| Sectors | CAGR between 1999-00 and 2009-10 | | |
|---|---|---|---|
| | Employment | GVA | Employment Elasticity of Output |
| Agriculture | 0.23 | 2.55 | 0.09 |
| Manufacturing | 0.98 | 7.96 | 0.12 |
| Mining & quarrying | 2.41 | 4.49 | 0.54 |
| Electricity, gas & water supply | 0.42 | 6.17 | 0.07 |
| ***Construction*** | ***11.52*** | ***10.00*** | ***1.15*** |
| Services | 1.78 | 9.41 | 0.19 |

Source: Computed from NSSO and CSO data for different periods.

Construction sector has high employment and GVA growth during the decade 1999-00 to 2009-10 and accounts for the highest employment elasticity, while electricity, gas and water supply accounts for lowest in the non-agricultural economy. Since construction sector shows its employment elasticity greater than one (1.15), it is an employment generating sector with labour intensive growth.

**Table 5**

**Sectoral Shares in Employment and GVA (Percentage)**

| Sectors | 1999-00 | | 2009-10 | |
|---|---|---|---|---|
| | Share in Employment | Share in GVA | Share in Employment | Share in GVA |
| Agriculture | 59.9 | 23.8 | 52.9 | 14.62 |
| Manufacturing | 11.1 | 15.5 | 10.5 | 15.88 |
| Mining & quarrying | 0.5 | 3.1 | 0.6 | 2.31 |
| Electricity, gas & water supply | 0.3 | 2.3 | 0.3 | 1.97 |
| Construction | 4.4 | 6.4 | 11.3 | 7.92 |
| Services | 23.7 | 48.9 | 24.4 | 57.30 |

Source: Computed from NSSO and CSO data for different periods

Table 5 indicates that electricity, gas and water supply has lowest share in country's total employment and GVA. Moreover, mining and quarrying contributes very minimal amount in terms of its percentage share in employment and GVA, and it stands just above electricity, gas and water supply. However, whilst construction sector has improved its rank in employment share, manufacturing shows its rank downstream. Thus, a study on both construction and manufacturing sectors may provide the dynamism of growth across sectors. Specifically, it will help us to understand the reasons of why one sector is emerging in terms of employment while another is not.

## 5. Reasons for Increase of Growth and Employment in India

It is evident from the literature survey and data that employment has increased in construction sector since 1999-2000 to 2009-10. Growth rate of employment in construction sector is much higher than other sectors of economy such as mining, manufacturing, electricity and industry. Total employment in construction sector as per NSSO Surveys was 17.5 million during 1999-2000 which has increased to 26.1 million during 2004-05. But share of GDP was not increasing as fast as share of employment. During 1999-2000 percentage share of employment was only 4.4 per cent while the GDP share was 6.5 per cent. During 2004-05 share of employment was 5.7 per cent while the share in GDP was 7.7 percent. During 2009-10 share of employment was 9.6 per cent but share in GDP was only 7.9 per cent. Analyses of data revealed that construction sector is an employment generating sector. Investment in this sector will generate more employment than other sectors.

Now the question is why the employment is increasing. What are possible reasons/factors for it? The entire study is dwelling around to answer this question "Why". With literature survey, secondary data and consultations with associations, & experts in this sectors and enterprises/contractors, officials of the Government departments, the study traced out the possible reasons and factors for increase in employment in construction sector. Employment increased due to following reasons:

### 5.1 Increases in Plan Outlay

During 1999-2000 total annual plan outlay was Rs.160, 608 crore which has increased to Rs.263, 665 crore in 2004-05 and Rs.762, 465 crore in 2009-10. From 1999-2000 to 2004-05, outlay has increased 1.64 times while it increased 2.89 times from 2004-05 to 2009-10. Emphasis was also given to housing and urban development. Outlay in housing and urban development has been increasing during the decade. Analyses of plan outlay data indicates that during the first half of decade plan outlay has increased at lower rate than second half. Thus employment growth was higher in second half of decade.

### 5.2 Gross and Net Domestic Savings

Data indicates that gross and net domestic savings has been increasing since 1999-2000. Gross domestic saving was Rs.4, 84,256 crore, which has increased to Rs.1, 000,424 crore during 2004-05, further increased to Rs.2182970, crore during 2009-10. Gross domestic savings increased about two times from 1999-2000 to 2004-05 while it increased 2.18 times from 2004-05 to 2010-11 (Table 6).

## Table 6

### Sector-wise Domestic Savings with Percentage to GDP (At Current Prices)

(Values in Rs. Crore)

| Year | Household sector | | | Private Corporate Sector | Public Sector | Gross Domestic Savings (4+5+6) | Consumption of Fixed Capital | Net Domestic Savings |
|---|---|---|---|---|---|---|---|---|
| | Financial savings | Physical | Total (2+3) | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| ***New Series (Base : 1999-2000)*** | | | | | | | | |
| 1999-00 | 206602 (10.6) | 205914 (10.5) | 412516 (21.1) | 87234 (4.5) | -15494 (-0.8) | 484256 (24.8) | 181422 (9.3) | 302835 (15.5) |
| 2000-01 | 215219 (10.2) | 239634 (11.4) | 454853 (21.6) | 81062 (3.9) | -36882 (-1.8) | 499033 (23.7) | 201817 (9.6) | 297215 (14.1) |
| 2001-02 | 247476 (10.9) | 256689 (11.3) | 504165 (22.1) | 76906 (3.4) | -46186 (-2.0) | 534885 (23.5) | 228298 (10.0) | 306588 (13.5) |
| 2002-03 | 253255 (10.3) | 315879 (12.9) | 569134 (23.2) | 94772 (3.9) | -15936 (-0.6) | 647970 (26.4) | 250477 (10.2) | 397493 (16.2) |
| 2003-04 | 313260 (11.4) | 357516 (13.0) | 670776 (24.4) | 120730 (4.4) | 29521 (1.1) | 821026 (29.8) | 279982 (10.2) | 541046 (19.6) |
| 2004-05 | 318264 (10.1) | 406846 (12.9) | 725110 (23.0) | 206363 (6.6) | 68951 (2.2) | 1000424 (31.8) | 328923 (10.4) | 671501 (21.3) |
| 2005-06 | 420841 (11.8) | 445915 (12.5) | 866756 (24.2) | 268329 (7.5) | 92263 (2.6) | 1227348 (34.3) | 378804 (10.6) | 848544 (23.7) |
| 2006-07 | 467985 (11.3) | 517837 (12.5) | 985822 (23.8) | 322242 (7.8) | 133359 (3.2) | 1441423 (34.8) | 434468 (10.5) | 1006959 (24.3) |
| ***At Current Prices*** | | | | | | | | |
| 2007-08 | 5,80,210 | 5,38,137 | 11,18,347 | 469,023 | 2,48,962 | 1,836,332 | 484,695 | 1,351,637 |
| 2008-09 | 5,71,026 | 7,59,846 | 13,30,873 | 417,467 | 54,280 | 1,802,620 | 565,198 | 1,237,422 |
| 2009-10 | 8,35,558 | 8,03,481 | 16,39,038 | 532,136 | 11,796 | 2,182,970 | 657,897 | 15,255,073 |
| 2010-11 | 7,67,691 | 9,81,620 | 17,49,311 | 602,464 | 1,30,155 | 2,481,931 | 753,473 | 1,728,458 |

Source: Central Statistical Organization.
Note: Figures within parenthesis shows percentage to GDP

It is assumed that in Indian system, savings are mainly used for purchasing or construction of houses and property for living and investment purpose. Increase in savings ultimately positively affects the construction activities which in turn increase in construction sector employment.

### 5.3 Gross Domestic Capital Formation

Gross Domestic Capital Formation has also increased during the decade. Gross Domestic Capital Formation (GDCF) at current prices was Rs.506244 crore in 1999-2000 which increased to 1,013,761 crore in 2004-05, further increased to 2,332,380 crore in 2009-10. GDCF increased 2.00 times from 1999-2000 to 2004-05 and 2.30 times from 2004-05 to 2009-10. While GDCG at constant prices has increased 1.57 times from 1999-00 to 2004-05 and 2.28 times from 2004-05 to 2009-10 (Table 7).

**Table 7**

**Gross/Net Domestic Capital Formations with Percentage to GDP**

(Values in Rs. Crore)

| Year | GFCF | | Change in stocks | | GDCF | |
|---|---|---|---|---|---|---|
| | At current prices | At constant prices | At current prices | At constant prices | At current prices | At constant prices |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ***New Series (Base year : 1999-2000)*** | | | | | | |
| 1999-00 | 456416 (23.4) | 456416 (23.4) | 37583 (1.9) | 37583 (1.9) | 506244 (25.9) | 506244 (25.9) |
| 2000-01 | 477818 (22.7) | 456380 (22.5) | 15467 (0.7) | 14413 (0.7) | 511788 (24.3) | 488658 (24.1) |
| 2001-02 | 538179 (23.6) | 4900009 (22.9) | -1325 (-0.1) | -1383 (-0.1) | 520655 (22.8) | 474448 (22.2) |
| 2002-03 | 584242 (23.8) | 522592 (23.6) | 21291 (0.9) | 19769 (0.9) | 619485 (25.2) | 555287 (25.0) |
| 2003-04 | 687016 (24.9) | 593964 (24.7) | 25884 (0.9) | 17116 (0.7) | 775647 (28.2) | 665625 (27.7) |
| 2004-05 | 894674 (28.4) | 705945 (27.1) | 60215 (1.9) | 41765 (1.6) | 1013761 (32.2) | 795642 (30.6) |
| 2005-06 | 1109160 (31.0) | 828986 (29.2) | 86248 (2.4) | 61702 (2.2) | 1271953 (35.5) | 950102 (33.4) |
| 2006-07 | 1346501 (32.5) | 954350 (30.6) | 96103 (2.3) | 64091 (2.1) | 1487786 (35.9) | 1053323 (33.8) |
| 2007-08 | 1598078 (33.9) | 1085618 (31.9) | 109321 (2.3) | 68541 (2.0) | - | - |
| 2008-09 | 1,821,099 | 1,480,943 | NA | NA | 2,000,103 | 1,626,220 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2009-10 | 2,041,758 | 1,580,944 | NA | NA | 2,332,380 | 1,814,641 |
| 2010-11 | 2,331,382 | 169,387 | NA | NA | 2,749,189 | 2,015,837 |

Source: Central Statistical Organization
Note: Figures within Parentheses indicate percentage of GDP
GFCF = Gross Fixed Capital Formation
GDCF = Gross Domestic Capital Formation

Capital formation in construction was Rs.5504 crore during 1999-2000 which was 1.1 percent of total capital formation in all sectors and 0.3 percent of total GDP in all sectors. Capital formation increased to Rs.25818 crore during 2004-05 which was 3.5 percent of total capital formation and 1.1 percent of total GDP in all sectors. During 2009-10 capital formation in construction sector further increased to Rs.8, 62,910 crore.

Data indicates that there is a massive increase observed in the decade in capital formation in construction sector which is very high among sectors. This increase in capital formation in all sectors and especially in construction sector leads to increase in construction activities and hence employment in construction sector.

### 5.4 Increase share of Construction Sector in Gross Domestic Product

Share of construction sector GDP in all sectors during 1999-2000 was 6.5 percent which has increased to 7.7 percent in 2004-05 and7.9 percent in 2009-10. Percentage share of construction sector GDP to total GDP has also increased from 7.7 percent in 2004-05 to 8.2 percent in 2009-10. Increase in total GDP of all sectors as well as construction sector GDP itself an indications of increase in construction sector activities which leads to increase in employment in construction sector (Table 8).

**Table 8**

**Gross Domestic Products at Factor Cost in Construction Sector**

| | Items | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009 | 2010-11 |
|---|---|---|---|---|---|---|---|---|
| A | ***Gross Domestic Product*** | | | | | | | |
| | At current Prices | 228,855 | 268,634 | 322,429 | 388,908 | 451,034 | 502,190 | 585,265 |
| | At Constant Prices | 228,855 | 258,129 | 284,806 | 315,495 | 332,329 | 355,717 | 384,199 |
| B | ***Annual Growth Rate of GDP*** | | | | | | | |
| | At current Prices | - | 17.4 | 20.0 | 20.6 | 16.0 | 11.3 | 16.5 |
| | At Constant Prices | - | 12.8 | 10.3 | 10.8 | 5.3 | 7.0 | 8.0 |
| C | ***Percentage Distribution of GDP*** | | | | | | | |
| | At current Prices | 7.7 | 7.9 | 8.2 | 8.5 | 8.5 | 8.2 | 8.2 |
| | At Constant Prices | 7.7 | 7.9 | 8.0 | 8.1 | 8.0 | 7.9 | 7.9 |

Source: Central Statistical Organisation, different periods

### 5.5 Foreign Direct Investment (FDI) in Construction Sector

The Government of India in March 2005 amended existing norms to allow 100 per cent FDI in the construction business. This liberalization act cleared the path for foreign investment to meet the demand into development of the commercial and residential real estate sectors. It has also encouraged several large financial firms and private equity funds to launch exclusive funds targeting the Indian real estate sector.

Out of total FDI received so far in housing and real estate and construction, 51.37 per cent was in housing and real estate and 48.63 per cent was in construction. In 2010-11 FDI was 52.94 per cent and 47.06 per cent respectively in both sectors. But during 2005-06, 20.52 per cent FDI was in Housing and Real estate and 79.48 per cent was in construction. Share of Housing & retail and construction sector in total FDI has been drastically increased from 1.27 per cent in 2001-02 to 4.15 per cent in 2005-06 and 11.95 per cent in 2010-11(Table 9).

**Table 9**

**FDI in Housing & Real Estate and Construction Activities**

(in Rs. Crore)

| Sl. No. | Sector | Year | | | |
|---|---|---|---|---|---|
| | | **2001-02** | **2005-06** | **2010-11** | **Cumulative Inflow of FDI (2000-12)** |
| 1. | Housing and Real Estate | 120.62 (0.65) | 209.79 (0.85) | 5600.31 (6.33) | 48818.51 (6.85) |
| 2. | Construction Activities | 113.66 (0.61) | 812.50 (3.30) | 4978.75 (5.62) | 46215.77 (6.47) |
| 3. | FDI in Real Estate & Construction Sector | 234.28 (1.27) | 1022.29 (4.15) | 10579.06 (11.95) | 95034.28 (13.32) |
| **Total FDI in all sectors** | | **18486.28 (100.00)** | **24584.37 (100.00)** | **88519.53 (100.00)** | **712545.92 (100.00)** |

Source: Department of Industrial Policy and Promotion, Ministry of Industries, New Delhi
Note: Figures within parentheses shows the percentage to total.

Data indicates that there is a huge influx of FDI in India in all sectors specially in construction & Housing & Real Estate sectors which leads to increase in construction activities which creates employment in organized and unorganized both sectors of construction.

FDI distribution among various sub-sectors of construction sector indicates that majority of FDI received in Construction (others) (88.58 per cent) followed by Roads and highways (10.80 per cent) and warehouses (0.62 per cent) (Table 10)

**Table 10**

**Sub Sectors wise FDI Equity Inflows in Construction Activities in India from January 2000 to December 2010**

| Sub Sectors | Amount of FDI inflows | | % with total FDI Inflows |
|---|---|---|---|
| | Rupees in Crores | US $ in million | |
| Roads & highways | 4,070.87 | 912.25 | 0.72 |
| Warehouses | 235.83 | 54.52 | 0.04 |
| Construction (others) | 33,395.80 | 7,476.52 | 5.89 |
| Total of above | 37,702.50 | 8,443.29 | 6.65 |

Source: Department of Industrial Policy and Promotion, Ministry of Industry, Govt. of India, New Delhi.

### 5.6 Bank Loans

Data Indicates that out of total loan given by banks, highest was given for housing. Though during 2003-04 personal loan was given maximum followed by housing loan but during subsequent years maximum loan was given for housing. Percentage of housing loan to Gross Domestic product has been increasing from 2003-04 to 2006-07. Housing loans were 3.2 per cent of total GDP during 2003-04 which increased to 5.4 per cent during 2006-07. Increase in housing loan itself an indication of demand of housing. This leads to construction of more and more houses which ultimately leads to increase in employment in construction sector (Table 11)

**Table 11**

**Retail Credit from Banks**

| Sl. No | Item | Per cent to GDP at Current Market Prices | | | |
|---|---|---|---|---|---|
| | | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
| 1. | Housing Loans | 3.2 | 4.3 | 5.0 | 5.4 |
| 2. | Consumer Durables | 0.2 | 0.1 | 0.1 | 0.2 |
| 3. | Credit Card Receivables | 0.2 | 0.3 | 0.3 | 0.4 |
| 4. | Auto Loans | 3.2 | 1.1 | 1.7 | 2.0 |
| 5. | Other Personal Loans | 6.8 | 2.7 | 3.3 | 3.7 |
| Total Retail Loans | | 13.7 | 8.5 | 10.5 | 11.8 |

Source: Report on Trends and Progress on Banking in India, RBI

### *5.7 Increases in Housing Constructions*

As per 2001 census, the total number of houses in India was 25, 90, 95,869 of which only 23, 32, 84,677 were occupied; the rest were found vacant. According to 2011 Census there are 33, 08, 35,767 total houses in India, out of which 2, 46, 72,968 (7.5 per cent)

were vacant and 30, 61, 62,799 (92.5 per cent) were occupied. During 2001 and 2011 census there is an increase of 7, 17, 39,898 houses which is 27.68 per cent growth in number of houses between two censuses. Rural urban break up of houses indicates that 67 per cent of houses are in rural area and remaining 33 per cent are in urban area (Table 12).

**Table 12**

**Total Numbers of Houses in 2001 and 2011 Censuses (In millions)**

| Items | Census | | |
|---|---|---|---|
| | 2001 | 2011 | Percentage increase |
| Total Number of Houses | 259.09 | 330.83 | 27.69 |
| Occupied | 233.28 | 306.16 | 31.16 |
| Vacant | 25.81 | 24.67 | (-) 4.41 |
| Rural | | | |
| Total Number of Houses | 177.54 | 220.69 | 24.30 |
| Occupied | 168.18 | 207.11 | 23.15 |
| Vacant | 9.36 | 13.58 | 45.08 |
| Urban | | | |
| Total Number of Houses | 81.55 | 110.14 | 35.06 |
| Occupied | 65.10 | 99.05 | 52.15 |
| Vacant | 16.45 | 11.09 | ( -) 32.58 |

Source: Census of India, 2001 and 2011

However, around 5.03 per cent (2001 Census) of India's population is still houseless (including 4.03 percent institutional population). Three major bottlenecks in the construction of houses are (a) constraints of taking to the common-man the know-how on making disaster-resistant housing, (b) constraints of taking to the common-man the know-how of effectively using local material in house construction, and (c) inadequate finances. The State Governments in association with the Central Government have undertaken several housing projects to provide houses to the needy.

With the economy surging ahead, the demand for all segments of the real estate sector is likely to continue to grow. The Indian real estate industry is likely to grow from €7 billion in 2005 to €58 billion by 2015. Given the boom in residential housing, IT, ITs, organized retail and hospitality industries, this industry is likely to see increased investment activity. India has a large and growing middle class population of 300 million people, out of which a large section is need new houses. It is estimated that there is a national housing shortage of 41 million units.

In the years ahead, the construction industry in India has to overcome various challenges – be it with respect to housing, environment, transportation, power or natural hazards. Technocrats associated with the Indian construction industry need to employ innovative technologies and skilled project handling strategies to overcome these challenges. The outstanding performance under demanding situations in the past will stand in good stead and give confidence to the Indian construction industry to bring about an overall development in the mega-projects eventually will feedback to the construction industry itself in the form of better economy and improved work conditions.

### 5.8 Government Sponsored Schemes

#### a) Pradhan Mantri Gram Sadak Yojana (PMGSY)

PMGSY is a key component for rural development and it is also recognized as an effective poverty reduction programme. Rural roads are vital to economic growth and to measures for poverty alleviation in rural area. PMGSY was launched by Hon'ble Prime Minister on 25$^{th}$ December, 2000 with 100 percent centrally sponsored. Analysis of data indicates that during the year 2000-01, Rs.2500 crore was allocated to PMGSY which increases to Rs.22000 crore registered an increase of 8.8 times from the year 2000-01. The PMGSY scheme shows a tremendous success in rural road construction. The scheme provides a boost to rural road construction work and thus increases employment in construction sector particularly in rural area (Ministry of Rural Development 2011).

### b) Indira Awaas Yojana (IAY)

Indira Awaas Yojana is being implemented across the country except Delhi and Chandigarh under which financial assistance is provided as Grant-in-aid to the rural below poverty line (BPL) households for construction of dwelling units. The ceiling on construction assistance under the scheme is Rs.45, 000/- per unit is the plain areas and 48,500/- in hilly/difficult areas. Under the scheme, financial resources are shared between the centre and the states on 75:25 bases. Physical and Financial achievement since 1999-2000 to 2010-11 is given as under (Table 13):

**Table 13**

**Physical and Financial Achievements under Indira Awaas Yojana**

| Year | Expenditure (Rs. In crore) | Number of Houses Built (in lakh) |
|---|---|---|
| 1999-2000 | 1908 | 9.30 |
| 2000-01* | 992 | 4.98 |
| 2002-03 | 2795 | 15.48 |
| 2003-04 | 2580 | 13.61 |
| 2004-05 | 3262 | 15.16 |
| 2005-06* | 2214 | 10.14 |
| 2008-09 | 8348 | 21.34 |
| 2009-10 | 13292 | 33.86 |
| 2010-11* | 7366 | 14.57 |

*Figures up to December of the respective year
Source: Annual Reports of the Ministry of Rural Development, Govt. of India.

Data indicates that since 1999-2000 to 2010-11 expenditure on IAY Scheme has been increasing as well as number of constructed houses also increases which registered an increase of three times since 1999-2000 in respect of number of houses and seven times in respect of amount spent. Analyses of data on expenditure under IAY Scheme and number of houses constructed itself an indication of increase in construction activities which creates lot of additional employment particularly in rural area.

### 5.9 Increase in Total Population and Urban Population

According to 2001 census, out of total population of 102.9 crore in India, 29.4 crore were residing in urban area which was 28.6 per cent of total population, while in 2011 census, out of total population of 121.0 crore in India, 45.6 crore, are residing in urban area which was 37.7 per cent of total population. From 2001 to 2011 there is an increase of 9.1 per cent of population in urban area which require additional housing accommodation for their residences.

In view of increasing population, there is always shortage of houses in Urban as well as Rural areas. It is constant efforts of Government to construct additional houses for the entire population. For construction of houses, construction activities are going on, in which lot of employment is generating. Construction of houses is an ongoing activity and never ending. It always boosts employment prospects.

### 5.10 Increase Investment in Infrastructure

According to Planning Commission $10^{th}$ Plan, there was an actual investment of Rs.9, 06,074crore in infrastructure development. Highest investment was made in electricity (37.55 per cent) followed by Roads and Bridges (14.03 per cent) and irrigation (including watershed) (11.78 per cent). During $11^{th}$ Plan, total of Rs.20, 54,205 crore investment was made according to revised projections which increased more than double (2.27 times) from $10^{th}$ plan.. During $11^{th}$ plan according to revised projections highest investment was made in electricity (32.06 per cent) followed by Telecommunication's (16.80 per cent) and Roads and Bridges (13.57 per cent). Increase investment in infrastructure projects leads construction in organized sector of construction which in turn leads in employment particularly for skilled persons (Table 14).

**Table 14**

**Sector-wise Investments in Infrastructure during Tenth and Eleventh Plans** (Rs. Crore at 2006-07 prices)

| Sector | Tenth Plan (2002-2007 | Eleventh Plan (2007-12) |
|---|---|---|
| | Actual Investments | Revised Projections |
| Electricity (incl. NCE) | 3,40,237 (37.55) | 6,58,630 (32.06) |
| Roads & Bridges | 1,27,107 (14.03) | 2,78,658 (13.57) |
| Telecommunications | 1,01,889 (11.25) | 3,45,134 (16.80) |
| Railways (incl. MRTS) | 1,02,091 (11.27) | 2,00,802 (9.78) |
| Irrigation (incl. Watershed) | 1,06,743 (11.78) | 2,46,234 (11.99) |
| Water Supply & Sanitation | 60,108 (6.63) | 1,11,689 (5.44) |
| Ports (incl. Inland waterways) | 22,997 (2.54) | 40,647 (1.98) |
| Airports | 6,893 (0.76) | 36,138 (1.76) |
| Storage | 5,643 (0.62) | 8,966 (0.44) |
| Oil & gas pipelines | 32,367 (3.57) | 1,27,306 (6.20) |
| Total | 9,06,074 (100) | 2,054,250 (100) |

Note: Figures in brackets indicate sectoral shares compared to total investment in infrastructure.
Source: Planning Commission, Eleventh Five Year Plan "Investment in Infrastructure, 2010.

## 6. Concluding Remarks

The construction industry everywhere faces problems and challenges. However, in developing countries like India, these difficulties and challenges are present alongside a general situation of socio-economic stress, chronic resource shortages, institutional weaknesses and a general inability to deal with the key issues. There is also evidence that the problems have become greater in extent and severity in recent years. One of the charges leveled at the construction industry, as at the beginning of the 21st century, is that it has a poor record on innovation, when compared with manufacturing industries. Inspite of all the constraints and challenges, construction sector in India registered a phenomenal growth in the share of GDP and employment during recent past.

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