

PARLIAMENT OF INDIA RAJYA SABHA

95

DEPARTMENT RELATED PARLIAMENTARY STANDING COMMITTEE ON COMMERCE

NINETY FIFTH REPORT

ON

PERFORMANCE OF CEMENT INDUSTRY

(PRESENTED TO THE RAJYA SABHA ON 24^{TH} FEBRUARY, 2011) (LAID ON THE TABLE OF THE LOK SABHA ON 24^{TH} FEBRUARY, 2011)



RAJYA SABHA SECRETARIAT NEW DELHI

FEBRUARY, 2011/PHALGUNA, 1932 (SAKA)

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DEPARTMENT RELATED PARLIAMENTARY STANDING COMMITTEE ON COMMERCE

(Constituted on 31st August, 2009)

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- % 2. Vacant
 - Dr. K. Keshava Rao 3.
 - 4. Shri Arun Jaitley
 - Shri Jai Prakash 5.
- @ 6 Shri Prem Chand Gupta
- @@7. Vacant
 - Shri Mohammed Adeeb # 8.
 - & 9. Prof. P. J. Kurien
 - ##10. Shri K. N. Balagopal

LOK SABHA

- 11. Shri G. S. Basavaraj
- 12. Shri K. P. Dhanapalan
- 13. Shri Shivarama Gouda
- 14. Shri Dilip Singh Judev
- 15. Shri Nalin Kumar Kateel
- * 16. Sk. Saidul Haque
 - 17. Shri O. S. Manian
 - 18. Shri Somen Mitra
 - 19. Shri Deoraj Singh Patel
 - 20. Shri Sanjay Dina Patil
 - 21. Shri Jagdish Singh Rana
 - 22. Shri G. Sukender Reddy
 - 23. Shri M. Venugopala Reddy
 - 24. Shri Vishnu Deo Sai
 - 25. Shri M. I. Shanavas
- ** 26. Smt Kamla Devi Patle
 - 27. Shri Kalikesh Narayan Singh Deo
 - 28. Shri Rajaiah Siricilla
 - 29. Shri K. Sudhakaran
 - 30. Shri Thirumaavalavan Thol
- \$ 31. Shri Yashvir Singh
- % Vacancy occurred due to retirement of Shri V. Hanumantha Rao from the membership of Rajya Sabha on 21st June, 2010.
- Nominated w.e.f. 17th September, 2009 vice Shri Sanjay Raut nominated to Committee on Defence.
- @@ Vacancy occurred due to retirement of Shri Rahul Bajaj from the membership of Rajya Sabha on 4th July, 2010.
 - # Nominated w.e.f. 17th September, 2009
 & Nominated w.e.f. 31st December, 2009

 - ## Nominated w.e.f. 26th April, 2010 vice Shri A. Vijayaraghavan who retired from the Membership of Rajya Sabha on 2nd April, 2010.

 - Nominated w.e.f. 12th January, 2010 vice Shri Sakti Mohan Malik nominated to Urban Development.

 Nominated w.e.f. 21st June, 2010 vice Shri Balkrishna K. Shukla nominated to Science & Technology, Environment & Forests.
 - \$ Nominated w.e.f. 14th October, 2009

II (Constituted w.e.f. 31st August, 2010)

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Prof. P. J. Kurien
- 3. Shri V. Hanumantha Rao
- 4. Dr. E.M. Sudarsana Natchiappan
- 5. Shri Arun Jaitley
- 6. Shri Jai Prakash
- 7. Shri K.N. Balagopal
- 8. Shri Ishwarlal Shankarlal Jain
- # 9. Shri Prem Chand Gupta
- @ 10. Shri Y. S. Chowdary

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- 22. Smt. Kamla Devi Patle
- 23. Shri Jagdish Singh Rana
- 24. Shri Gutha Sukender Reddy
- 25. Shri Modugula Venugopala Reddy
- 26. Shri Vishnu Deo Sai
- 27. Shri M. I. Shanavas
- 28. Shri Yashvir Singh
- 29. Shri Rajaiah Siricilla
- 30. Shri K. Sudhakaran
- 31. Shri Thol Thirumaavalavan

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & Financial Advisor Shri P. P. K. Ramacharyulu, Director Dr. (Smt.) Subhashree Panigrahi, Joint Director

Smt. Indira Chaturvedi Vaidya, Assistant Director

(ii)

PREFACE

- I, the Chairman of the Department Related Parliamentary Standing Committee on Commerce, having been authorised by the Committee, present this Ninety Fifth Report of the Committee on the Performance of Cement Industry.
- 2. The Department Related Parliamentary Standing Committee on Commerce decided to take up 'Performance of Cement Industry' for in depth examination in its meeting held on 27th October, 2009. It was also decided to issue Press Communiqué to invite views/suggestions from the various organisations and individuals on the subject in the meeting of the Committee held on 1st December, 2009. Accordingly a Press Communiqué (Appendix-I) was issued on 4th December, 2009. The Committee received 21 written memoranda in response to the Press Communique. List of individuals, organisations etc. from whom the memoranda were received by the Committee on the subject, is at Appendix-II.
- 3. The Committee held 10 sittings to consider the subject. The Committee heard the oral evidence of the Secretary, Department of Industrial Policy and Promotion on 9th November, 2009. It also heard the representatives of various other Ministries and Organisations viz. Cement Manufacturers' Association (CMA) and Builders' Association of India (BAI) on 11th January, 2010, Ministry of Environment and Forests and Central Pollution Control Board (CPCB), National Council for Cement and Building Materials (NCCBM) and Railway Board on 25th May,2010, Ministry of Road Transport and Highways, Ministry of Corporate Affairs and Competition Commission of India on 26th May, 2010, Ministries of Defence and Rural Development on 7th June, 2010, National Council of Applied Economic Research (NCEAR) and Tariff Commission on 21st June, 2010, Indian Roads Congress (IRC) and Central Road Research Institute (CRRI) on 22nd June, 2010 (Appendix-III).
- 4. The Committee visited Andhra Pradesh, Tamil Nadu and Kerala from 11th to 16th July, 2010, to have first hand information on the situation prevailing in the cement industry and to hold discussions with representatives and workers of cement plants.
- 5. The Committee in its meeting held on 21st June, 2010 directed the Tariff Commission to conduct a study on costing of cement production and cartelisation in cement industry and furnish a Report within two months. Tariff Commission conducted the study and submitted a report to the Committee.
- 6. The Committee considered and adopted this report at its sitting held on 29th December, 2010.
- 7. For finalising this Report, the Committee mainly relied on the following:
 - (i) Back ground note received from the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry;
 - (ii) Written material provided by Cement Manufacturers' Association (CMA), Builders' Association of India (BAI), Ministry of Environment and Forests, National Council for Cement and Building Materials (NCCBM), Central Road Research Institute (CRRI), Indian Roads Congress (IRC), JK Cement, Ambuja Cement, ACC Ltd, Ministry of Rural Development;
 - (iii) Report on Demand of Cement by National Council of Applied Economic Research (NCAER);
 - (iv) Oral evidence tendered before the Committee; and

- (v) Exclusive study conducted by Tariff Commission for the Committee on costing of cement and cartelisation in cement industry and report submitted to it thereon.
- 8. The Committee expresses sincere thanks to all the representatives of various Ministries, Organisations and Individuals for placing before it the material and information, required in connection with examination of the subject.

NEW DELHI; December 29, 2010 SHANTA KUMAR, Chairman, Department Related Parliamentary Standing Committee on Commerce

CHAPTER I

Introduction

- 1.1 Cement is the most essential raw material in any kind of construction activity. Accordingly, cement industry plays a crucial role in the infrastructural development of the country. Given the vast geographical size and massive population of the country, various construction activities undertaken by the Central Government, State Governments, Public Sector Undertaking and other organisations, including private sector generate huge demand for cement. In addition, provision for housing is the first and foremost requirement of every household and, therefore, market demand of cement for private consumption is increasing constantly.
- 1.2 The Ministry of Commerce and Industry, in their background note, stated that in view of the increasing demand and the scarcity, the price and distribution control was completely removed by the Government in the year 1989. The cement industry was de-licensed in 1991. According to the Ministry, the liberalization process provided the much desired boost to the cement industry and, the growth was quite visible leading to perceptible growth in terms of 100 million tonnes capacity addition during the decade 1999 to 2009. This capacity addition of cement during the decade could match the capacity addition built over a period of eight decades prior to that. The first cement industry in India was set up at Porbundar, Gujarat in 1914, with a production capacity of 1000 tonnes per annum, thus making it about a century old industry in India.
- 1.3 According to the background note submitted by the Ministry the Indian Cement Industry is now the second largest cement producer in the world, next only to China. India's share in the world's cement production is around 6%. It

comprises 154 large cement plants, with an installed capacity of 230.82 million tonnes, employing 1.35 lakh persons directly. The Committee was also informed that the industry underwent rapid technological upgradation and vibrant growth during the last two decades. Some of the cement plants in the country can be compared in every respect with the best operating plants in the world. According to the Government, the salient features of Indian cement industry are:

- 1 The industry presents a mixed picture with many new plants that employ state-of-the-art dry process technology and a few old wet process plants having wet process kilns.
- 2 Production from large plants (with capacity above 1MTPA) account for 88% of the total production.
- The cement industry has achieved significant progress in terms of reducing the overall energy intensity.
- The industry's average thermal energy consumption was 725 kCal/kg clinker and average electrical energy consumption was 82 kWh/tonne of cement. The best thermal and electrical energy consumption are 667 kCal/kg clinker and 68 kWh/tonne of cement respectively.
- 1.4 The Committee noted that the cement production growth touched a peak of 12.00% in 2009-10, as against 7.90% in 2008-09. The industry is likely to achieve the capacity of 298 million tonnes by the end of 11th five year plan. According to the Ministry an investment of approximately Rs. 500 crore is required for creating a capacity of 1 million tonne.
- 1.5 According to the Ministry, cement industry recorded a commendable growth of around 8 per cent in 2007-08, as well as in 2008-09. In the year 2009-10, the pace of growth of the industry accelerated above double digit.
- 1.6 The following table indicates the major players and their share in the Cement sector:-

(Million tonnes)

S. No.	Group	Installed	Capacity	Cen	nent	Market *
		As	on	Produ	ıction	Share (%)
		31.3.2009	30.9.2009	2008-09	2009-10	
					(Apr-Sep)	
1	A.C.C. Ltd.	22.41	22.41	20.95	10.38	10.73
2	Grasim Industries	19.65	19.65	16.32	9.50	9.82
3	Ambuja Cements Ltd.	18.30	18.30	18.01	9.13	9.44
4	UltraTech Cement Ltd.	21.90	21.90	15.86	8.25	8.53
5	India Cements	10.74	11.84	9.11	4.94	5.11
6	Jaypee Group	9.93	12.13	8.05	4.79	4.95
7	Shree Cement	9.10	9.10	7.78	4.57	4.72
8	J.K. Group	9.37	10.17	7.50	3.93	4.06
9	Madras Cements	8.92	10.12	6.27	3.91	4.04
10	Century Textiles	7.80	7.80	7.22	3.70	3.83
11	Dalmia Cement	6.50	9.00	3.38	2.05	2.12
	All India	219.17	230.82	181.61	96.73	
	* Based on Cemen	t Production	n - 2009-10 ((Apr-Sep)		

- 1.7 According to the Ministry, there is regional imbalance in cement production in India due to the limitations posed by raw material and fuel sources, and most of the plants are located in proximity to the raw material sources. This industry is mainly concentrated in Andhra Pradesh (16%), Rajasthan (15.5%), Madhya Pradesh (9%), Gujarat (9%), Tamil Nadu (13%), Maharashtra (6%), Karnataka (7%) and Chhattisgarh (5%).
- 1.8 The Committee noted that three types of cement is produced in India. The Portland Pozzolana Cement (PPC) enjoys the major share (67%) of the total production, followed by Ordinary Portland Cement (OPC) (25%) and Portland Slag Cement (PSC) (8%). A positive trend towards the increased use of blended cement is discernible with the share of blended cement increasing to 75%.

During 2008-09, the industry consumed 35 million tonnes of fly-ash and 7.5 million tonnes of slag. According to the Ministry a continuous increase in the production of blended cement is expected to reduce the problem of waste disposal, improve energy efficiency and reduce carbon footprint.

- 1.9 The Committee noted from the background note that exports recorded a growth of 14.24% in the 10th Five Year Plan. The industry recorded the highest growth in exports during 2004-05, when it exported around 10 million tonnes. Since then, the exports declined to 6 million tonnes during 2008-09.
- 1.10 Bangladesh, Nepal, Sri Lanka, Maldives, Mauritius and UAE are major export destinations for the cement industry. Exports constitute less than one per cent of the capacity. India is largely self-sufficient in cement production and its import is less than one million tonnes.
- 1.11 The prices of cement are determined by the market forces, as this industry has been de-licensed under the Industrial (Development & Regulation) Act, 1951. The price and distribution control of cement has been removed since 1989. Cement has also been deleted from the list of essential commodities w.e.f 15th February, 2002.
- 1.12 The Committee was given to understand that though the cement industry is vital for the economy and for the infrastructure building, yet various stages of cement production lead to environmental pollution. The Ministry stated that several cement plants had been striving to adopt eco-friendly technologies like installing of Multicyclone, Electrostatic Precipitators Bag Filters, Hybrid Filters etc. At Present, 144 cement plants are known to be complying with the standards of pollution set by the Ministry of Environment and Forests.

1.13 Recently cement industry has started consuming 75% of the Fly Ash recycled in the country, a hazardous waste posing problems of disposal by Thermal Power Plants. Similarly, the Cement Industry has also helped in providing a clean environment by consuming blast furnace slag, which also poses a problem of disposal.

Chapter-II

Cement Production and Supply

Demand, Consumption and Production

- 2.1 As being a fast growing economy, the country has witnessed a steady growth of cement industry. While India has become the second largest cement producing country in the world, the gap between the largest producer *viz*. China and the second largest producer is quite wide. China produces 1400 million tonnes per year and India produces a mere 183 million tonnes.
- 2.2 The Committee noted that there is an interlinking relation between cement consumption and the growth of economy. The country is on a high growth track and the focus now is on the development of the infrastructure facilities such as, highways, ports, canals, bridges, power-houses etc. Infrastructural development obviously gives rise to increased demand for cement. The Committee has been given to understand that the performance of cement industry has been commendable even during the global economic slowdown. The sector has survived the adverse impact as public spending on infrastructure projects remained optimum, keeping in view its multiplier effects to spur the economy.
- 2.3 According to the data provided by the Tariff Commission in its study conducted on the subject for this Committee, China besides being the largest producer of cement in the world is also the largest consumer of cement in the world. It manufactures and consumes around 50% of global output. The Commission also stated that the per capita consumption in China is around 1040 Kg whereas in India it is 178 Kg.

- 2.4 The Committee took note of the study conducted by the National Council for Applied Economic Research (NCAER), on Demand for Cement in 2005. NCAER observed that in India, most of the infrastructure-related cement consumption falls under the category of departmental and non-departmental enterprises, which constituted about 21 per cent of total cement consumption during 2001-02. Government and defence (which also includes government buildings) account for another 18 per cent, and housing for about 42 per cent. As against this, according to the study, about 42 per cent of cement in Japan goes to make buildings and another 40 per cent towards infrastructure-related activities. Cement for making roads and bridges in Japan accounts for 10.5 per cent as compared to an almost minuscule share in India. This means about seven million tonnes of cement is used for making roads in Japan on an annual basis. The NCAER felt that this area of cement application is highly under exploited in India.
- 2.5 According to a study of the Tariff Commission, demand for cement can be categorized into Housing-64%, industrial-6%, Commercial & Institutional-13% and infrastructure-17%.
- 2.6 The annual domestic demand of cement, the annual production of cement and the export of cement during the last five years is as given below:-

(in Million Tonnes)

Year	Demand of Cement	Production of Cement	Export of Cement
2005-06	135.56	141.81	5.98
2006-07	149.34	155.64	5.89
2007-08	164.03	168.31	3.65
2008-09	177.98	181.61	3.20
2009-10	196.12	201.00	2.27

2.7 As per the Report of the Working Group on Cement Industry for the XI Five Year Plan (2007-2012), the projected demand of cement for the next three years is as given below:-

	(in Million Tonnes)
Year	Demand of
	Cement
2010-11	231.66
2011-12	257.61
2012-13	290.00

- 2.8 It would be seen from the above table that the demand for cement has been constantly increasing and the demand projected by the Working Group is likely to touch 290 million tonnes by 2012-13. The Committee noted that the Working Group has projected a production requirement of 268 million tonnes by the year 2012 to meet the growing demand. This leads to capacity requirement of 290 million tonnes. As the industry is highly capital intensive, for one million tonne of production an investment of Rs. 500 crore is required. The industry is implementing a massive expansion programme of an investment of around Rs. 55000 crore over the five year period of the 11th Plan to add 110 million tonnes capacity. The Committee was informed that 66 million tonnes have already been added with an investment of around Rs. 30,000 crore. The industry is likely to achieve the targeted capacity by the end of the 11th Plan.
- 2.8.1 The Committee hopes that the target to add 110 million tonnes capacity by the end of the 11th Plan will be achieved. The Committee also feels that while increasing the capacity and adopting modern technology, aspects relating to employment generation should also be kept in view. The Committee also observes that while going for technological upgradation of the existing plants there should not be any retrenchment of

labour.

- 2.9 As regards capacity and production of cement is concerned, the Tariff Commission in its study indicated that the capacity had grown from 157.35 million tonnes in 2005-06 to 240.85 tonnes in 2009-10. The following table, as provided by the said Commission, indicates capacity, utilization, production, and production growth:
- 2.10 Capacity, Capacity Utilization and Production Growth

(Million tonnes)

Year	Capacity	Utilization	Production	Production
		(%)		Growth (%)
2005-06	157.35	90	141.81	11.16
2006-07	165.64	94	155.64	9.75
2007-08	179.10	94	168.31	8.14
2008-09	205.96	88	181.61	7.90
2009-10	240.85	84#	201.37	12.67@

Source: Cement Manufacturers' Association

- @ Compared to corresponding data of the previous year.
- # Capacity of closed units has been ignored while calculating capacity utilization.
- 2.11 From the above table, it would be seen that the capacity utilization has come down from 94% during 2006-07 and 2007-08 to 88% during 2008-09 and 84% during 2009-10. Similarly, the production growth rate has constantly fallen from 11.16% during 2005-06 to 7.90% during 2008-09. The Tariff Commission, however, felt that cement industry is the only major industry which is growing at a record rate despite the economic downturn.
- 2.12 The Committee is optimistic about significant expansion of cement industry, because of the construction activity of major infrastructural projects across the country. The Committee feels that there is a need to boost cement demand in key segments of the national economy by giving emphasis on economical low cost mass housing schemes especially in

small towns and semi urban areas and also by laying concrete roads wherever feasible. The Committee is, however, dealing with the concrete roads separately in Chapter – VI of this report.

- 2.13 The Committee while noting the significant expansion of cement industry expresses concern over inadequate infrastructural facilities for the growth of the economy. India needs a strong infrastructural base to meet the demands of the bourgeoning population of our vast and diverse country. Since infrastructural development and demand for cement are complementary to each other, it is imperative to diversify, and make proper assessment of our requirements. Infrastructure sector should take the largest share in the cement demand.
- 2.14 The Committee takes a serious note of the fact that, in spite of constantly increasing capacity, the capacity utilization has been declining constantly. If we need to reach the optimum production level, capacity utilization should be maintained above 90%. The Committee desires that government should seriously address this issue.
- 2.15 The Committee also expresses its concern over the down slide trend of the production growth between 2005-06 and 2008-09, though it had achieved a record growth in 2009-10 at about 12%. The Committee, while agreeing that this is one of the major industries that has been growing at a record rate despite the economic downturn, desires that the down slide trend noticed earlier should not be allowed to recur again.

Issues and Challenges

2.16 The Committee was informed that the following factors affect the production of cement in the country which need immediate attention of the

Government:-

(i) Shortage of Raw Material and Substitutes

- 2.17 The principal raw materials for cement are lime stone, gypsum and sand. The Committee during its visit to the cement plants was informed by the managements that many companies had got limited reserves of lime stone which may last only for another 15-20 yeas. Another raw material, gypsum, due to its shortage is imported from abroad. Similarly, natural sand is obtained through mining, which leads to soil erosion.
- 2.18 The Committee feels that research on non-limestone bearing raw material and binders, which can partially replace limestone, needs to be undertaken. National Council for Cement and Building Materials expressed its helplessness in carrying out such research due to paucity of funds. The Committee recommends that the National Council for Cement and Building Materials should conduct research on finding alternatives of limestone and other construction material. Use of geopolymeric cements which require some chemical bonding instead of lime, should be encouraged. The Committee is dealing in detail separately with R&D in Chapter-VII.
- 2.19 The Committee was given to understand that in order to reduce the consumption of lime stone, various substitutes are used. Substitution of clinker by using fly ash and blast furnace slag can reduce emission of pollutants per tonne of cement production. The Committee also noted that total fly-ash generated by power plants is 130 million tonnes per year, out of which 34 million tonnes is utilized by cement plants. Steel plants generate 13 million tonnes blast furnace slag per year out of which 8 million tonnes is utilized by cement plants. It has been estimated that utilization of fly-ash and blast furnace slag reduces dust

emission by 9800 tonnes per annum and CO₂ emission by 33.6 million tonnes per annum. It also contributes to conservation of lime stone significantly.

- 2.20 The Committee was informed that initially the fly-ash was supplied to the cement companies free of cost on first come first served basis. The Committee however, has come to know that as per the Ministry of Environment and Forests Notification of 3rd November, 2009, fly-ash is a saleable commodity. The Committee was informed that as a result of this Notification, fly-ash would be costlier, which may adversely affect the production of environment-friendly blended cement. Moreover, power houses have started charging heavy prices from the cement factories for lifting the fly ash under the garb of administrative charges, while otherwise, they had to incur heavy expenditure in dumping their fly ash in the ash ponds or it would have created health hazard for the public. It was also stated that the Cement plants are compelled to supply 20% fly-ash from their captive Power Plants to manufacturers of fly-ash bricks, tiles etc., depriving the cement manufacturers from using their own fly-ash.
- 2.21 The Committee strongly feels that the concerns expressed in regard to the fly-ash may be looked into. The Committee strongly recommends that the cement plants, which have captive power plants, may be allowed to use fully the fly-ash generated by their captive power plants.
- 2.22 It was further informed that the wastes like, paint sludge, refinery sludge, plastic waste and tyre chip have been successfully co-processed in trial runs. Several cement plants regularly co-process different industrial wastes.
- 2.23 Co-processing of industrial wastes in cement industry can conserve fossil fuel energy resource and has a potential to minimize the adverse impact of global warming, by reducing green house gases emission. The

Committee, therefore, desires that co-processing of industrial wastes may be encouraged and incentives may be given to the plants using such technologies.

(ii) Power Shortage

- 2.24 Cement industry is an energy-intensive sector. All major operations of cement manufacturing critically hinge on the availability of power. It has come to the notice of the Committee that power supply from grid has been erratic and inadequate and cement units are forced to set up their own captive power plants. The Committee was given to understand that several State Governments have imposed duty on captive power generation by cement plants and insist on payment for a minimum use of power from grid. This adds to the cost of production. In this connection the Committee noted that the Tariff Commission estimated 2000 MW captive power requirement due to growing grid uncertainties. 2.25 The Committee recommends that duties on captive power generation by cement plants add to the cost of production further escalating the prices and the State governments should consider reducing the duty on the captive power plants. The Committee also recommends that the State government should not insist on the cement plants to pay for a minimum use of power from the grid wherever there are captive power plants. The Committee feels that the cement industries must explore alternate energy sources and the plants which adopt energy efficient technology, should be given incentives by the Government.
- 2.26 The Committee was informed that 30-40% of total heat input is released as waste heat from exit gases. It was suggested to the Committee that 4.4 MW of electricity can be generated from 1 Million Tonne Per Annum (MTPA) capacity

plant by waste heat recovery. The Committee also learnt that out of the total cogeneration potential of 400 MW, from Indian Cement sector, only 13.5 MW is in operation while cogeneration of 71.5 MW is under installation.

- 2.27 It was also stated that Capital cost for the installation of a co-generation system is around Rs. 10-12 crores/MW and the Cost of power generation is Rs. 20-30 paise/unit (kwh). On the other hand capital cost for setting up coal based thermal power plant is about Rs. 5 crores/MW and cost of power generation is Rs. 4-6/unit (kwh).
- 2.28 The Committee observes that Indian Cement Industry has vast untapped potential for cogeneration of power by waste heat recovery, of which, only 25% is being tapped. The Committee, therefore, recommends that Cement Industry should give emphasis on the need for optimum utilization of co-generation of power by waste heat recovery. This will not only reduce cost of production of cement but also help in reducing the green house gas (CO₂) emission. Incentives may also be considered for cement plants for co-generation of power from waste heat.

(iii) Availability of Coal

2.29 The Committee was informed that cement industry depends heavily on coal for manufacturing cement. Therefore, adequate and sustained availability of proper quality of coal is of paramount importance for the Indian cement industry.

2.30 Coal India Ltd. (CIL) and Singareni Colleries Co. Ltd. (SCCL) are the two indigenous coal suppliers for the cement industry through the system of linkage and Fuel Supply Agreement (FSA). However, the supplies are grossly inadequate from CIL and SCCL. The Committee learnt that against a consumption of 29.57 Mn.T. in 2008-09, these two sources supplied mere 14.29

- Mn.T. i.e., just 48% of the total requirement. The additional requirement of 15.28 Mn.T had to be procured at a huge cost from various other sources like purchase from open market, imports, use of pet coke etc. to supplement the requirement.
- 2.31 The Committee noted with constraint that as per the New Coal Distribution Policy (NCDP), notified in October 2007, the FSAs will be signed only for 75% of the "Normative Requirement". Thus, there is an ab-initio shortfall in the allocation of coal to each cement plant against its normative requirement.
- 2.32 The Committee also noted that the Working Group on Cement Industry projected coal requirement at 57.97 Mn.T. for the terminal year (2011-12) of XIth Plan. It was also brought to the notice of the Committee that substantial Brownfield/Greenfield capacities have been created over the last 3-4 years without coal supply from the coal companies, obliging them to source their entire fuel requirement from various other avenues.
- 2.33 The Committee finds that though unhampered availability of good quality coal is essential for the cement industry, but the supply of coal through linkage from coal companies to the cement companies has decreased from 70% of total requirement in 2003-04 to less than 50% in 2008-09. This has forced the industry to source coal from other sources like open market, imports, use of pet coke etc. to supplement the requirement at huge cost. Other reason of this shortage is delay in signing of Fuel Supply Agreements (FSAs) between cement and coal companies. The Committee also expresses its dismay that the long term linkage committee meeting in the Ministry of Coal has not sanctioned any linkage for the last two years of the 11th Plan to new capacities. This can discourage the new investors and, in turn, can slow down the pace of

infrastructure development.

2.34 The Committee, therefore, recommends that the Government should take urgent steps to ensure enhanced and regular supply of coal to the cement industries. Fuel Supply Agreements (FSAs) should be signed without any further delay. In order to restore the confidence of the investors, it is imperative that 80% or more coal of total requirement should be provided through linkage. The Government may address all the issues relating to coal supply to the cement plants at the earliest.

(iv) High Taxes and Levies

- 2.35 National Council for Applied Economic Research (NCAER) informed the Committee that Indian cement industry appears to be the highest taxed cement industry among the selected countries such as China/ Hong Kong, Bangladesh, Bhutan, Indonesia, Pakistan, Nepal, Singapore, Sri Lanka, Thailand and Vietnam. This makes prices of Indian cement non-competitive vis-à-vis other countries in international market.
- 2.36 According to Cement Manufacturers Association (CMA), taxes and levies on cement constitute 60% or more of the ex-factory price. Though excise duty on Cement is levied on the basis of Maximum Retail Price (MRP), no abatement is given to Ordinary Portland Cement (OPC), Pozzlana Portland Cement (PPC) and Slag Cements while white cement has been allowed abatement.
- 2.37 Tariff Commission in its Report submitted to the Committee stated that the following rates of excise duty are levied for bagged cement and clinker:

(i)	For retail sale price of cement not exceeding Rs. 190/- per bag of 50 Kg.	
(ii)	For retail sale price of cement exceeding Rs. 190/- per bag of 50 Kg.	

(iii)	For institutional sale of cement	10% of sale price or Rs. 290/- per tonne whichever is higher.
(iv)	Clinker	Rs. 375/- per tonne

2.38 The Tariff Commission also stated that import duty on the inputs including clinker used in cement production is close to 10% and on coal it is close to 5%. As a result, the weighted average import duty on various cement inputs is at around 6.8% while the finished product (cement) can be imported duty free.

2.39 According to Tariff Commission other duties imposed on Cement industry are as under:-

Royalty on limestone	Rs. 63/- per tonne
Cess on limestone	Re 1/- per tonne
VAT on cement & clinker	12.5% of sale price, 13%+Entry tax @1% for M.P, 14% for Chhattisgarh, 14.5% for A.P and 12.5%+Addl. Tax @ 2.5% for Gujarat.
Cess on cement dispatched	Rs. 0.75/- per tonne
BIS marking fees on cement dispatched	Rs. 2/- per tonne
CST	2% against C-form

According to Tariff Commission there are certain state specific taxes also which add up to manufacturing cost of cement.

- 2.40 Representatives of Cement Manufacturers Association (CMA) informed the Committee that though introduction of Goods and Services Tax (GST) is expected to subsume several taxes and levies, there would still be problem areas of additional duties/taxes by States unless the items Electricity duty, Royalty on Limestone, Entry Tax, Water Cess and Rural Infrastructure Tax get included in GST.
- 2.41 On the issue of absence of abatement, the Secretary, Department of Industrial Policy and Promotion clarified that according to the principle of taxation there should be abatement if there is an MRP on the product and if the tax is on

retail price. He also stated that the Abatement Committee in the Ministry of Finance calculates the costing between the factory gate and the consumer. In the Cement Industry, the abatement issue has not yet been settled because the shift to taxation on advalorem basis is about two years old. This issue is still under examination between the Department of Industrial Policy and Promotion and the Ministry of Finance. The Secretary also clarified that the abatement, as a principle has been accepted and sooner or later it would be accepted.

2.42 The Committee while appreciating the steps taken by the Government for introducing taxation on cement on ad valorem basis, recommends that the Department should expedite introduction of abatement on excise duty. The Committee also recommends that import duty on inputs i.e. coal, pet coke and gypsum be brought at par with the import duty on the final product. State specific taxes should also be reconsidered.

CHAPTER III

Cement Prices

- 3.1 During the examination of the subject, i.e., 'Performance of Cement Industry', the most pressing issue that was engaging the attention of the Committee was high prices and price volatility of cement in India. The Ministry of Commerce and Industry, in its note submitted to the Committee, stated that the cement industry was de-licensed under the Industrial (Development and Regulation) Act, 1951 and the price and distribution control of cement has been removed since 1989. It was also stated that 'cement' has been deleted from the List of Essential Commodities on 5 February, 2002. Thus, presently, the prices of cement are determined by the market forces. According to the Ministry, the average All-India Retail Price of Cement has remained stable showing an increase of 3.75 per cent only from Rs.240 per bag in September 2008 to Rs.249 per bag in September, 2009. According to the Tariff Commission, cement is a continuously processed product and, therefore, processing cost is followed for maintenance of cost records. Direct costs are absorbed to various costs centres and indirect costs centres are apportioned to different costs centres on appropriate basis.
- 3.2 The Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, stated that prices of cement in neighbouring countries such as China and Pakistan have been much lower than that of India. During its study visits, the Committee found that in Andhra Pradesh, the price of cement was Rs.120 per bag; in Tamil Nadu, it was Rs.150 per bag while in Kerala, it was Rs.190 per bag, excluding various types of taxes and levies.

3.3 When the Committee sought to know the price variation and the volatility of prices, the representatives of Cement Manufacturers' Association explained that since March, 1989, 'cement' has been a de-controlled commodity and, therefore, it has been subject to forces of open market, i.e., 'demand and supply'. It was also stated that variations in prices are a result of dynamics of market forces. Besides, prices of different brands also vary in market, depending upon their brand image and consumer preferences.

Cost of production of cement

3.4 The Committee heard the views of the Tariff Commission on cement prices and was surprised to note that Tariff Commission has not conducted any studies on costing of cement production. The Committee directed the Ministry to get a study conducted by the Commission and provide the results of the study on costing of cement production within two months. The Tariff Commission accordingly conducted an exclusive study for the Committee on the subject. The Commission in its study have given element-wise break-up of overall weighted average cost of all the selected units for the year 2008-09 giving actual cost of production of the three varieties of cement which is given below:-

(i) Ordinary Portland Cement (OPC)

(Figures in Rs. Per MT)

Cost Element	Weighted Avg. Cost	Percentage on cost of sales
Gypsum	54	2
Clinker & other cost	1336	48
Power & fuels	227	8
Salaries & wages	30	1
Stores & spares	54	2
Depreciation	33	1
Factory/ Admn, overhead	103	4
Packing expenses	146	5

Transport expenses	611	22
Other expenses	174	7
Total cost of sales	2768	100

(ii) Pozzolana Portland Cement (PPC)

Figures in Rs. Per MT)

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Cost Element	Weighted Avg. Cost	Percentage on cost of sales
Gypsum	76	3
Clinker & other cost	1007	40
Power & fuels	207	8
Salaries & wages	36	1
Stores & spares	76	3
Depreciation	44	2
Factory/ Admn, overhead	62	4
Packing expenses	160	6
Transport expenses	616	25
Other expenses	206	8
Total cost of sales	2490	100

(iii) Portland Blast Furnace Slag Cement (PBFSC)

(Figures in Rs. Per MT)

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Cost Element	Weighted Avg.	Percentage on cost of sales
	Cost	
Gypsum	59	2
Clinker & other cost	1030	41
Power & fuels	177	7
Salaries & wages	34	1
Stores & spares	37	1
Depreciation	93	4
Factory/ Admn, overhead	143	6
Packing expenses	182	7
Transport expenses	497	20
Other expenses	275	11
Total cost of sales	2527	100

3.5 It may be seen from the above tables that the cost of raw material and power account for 50% or above of the total cost of sales including

interest for all the three varieties of cement. Similarly, transport expenses account for 20% or above of the total cost for all the varieties.

- 3.6 The cost of production of cement is a major factor that determines the prices of cement. According to the Tariff Commission, the production cost of cement comprises of the following major expenses:
 - (i) Lime stone cost;
 - (ii) Gypsum/fly ash/slag cost;
 - (iii) Power, fuel and stores & spares;
 - (iv) Salaries & wages;
 - (v) Repair and maintenance;
 - (vi) Depreciation;
 - (vii) Overheads (factory and administration);
 - (viii) Packing expenses; &
 - (ix) Cement transportation charges
- 3.7 The Tariff Commission, in its study, stated that analysis of actual conversion cost for the year 2008-09 revealed wide fluctuations among various factories. The weighted average cost and its percentage on total cost sales for major cost elements in respect of Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Portland Blast Furnace Slag Cement (PBFSC), after a detailed analysis, have been indicated by the Tariff Commission as under:

The actual cost of sales, including interest and commission per bag

Details	Rs/per bag (50 kg)
OPC	138
PPC	125
PBFSC	126
Total	128

Region-wise spread of actual cost of sales of cement, including interest, for the year 2008-09

Region	OPC Rs./T	OPC Rs./Bag (50 kg.)	PPC Rs./T	PPC Rs./Bag (50 kg.)	PBFS C Rs./T	PBFSC Rs./Bag (50 kg.)	Total Average cost Rs./T	Total Average Cost Rs./Bag (50 kg.)
Central	2648	132	2412	121	-	-	2423	121
East	2855	143	2711	136	2506	125	2561	128
North	2732	137	2476	124	-	-	2529	126
South	2497	125	2366	118	2602	130	2413	121
West	2963	148	2708	135	-	-	2816	141

- 3.8 It would be seen from the above tables that the cost of sales, including interest, per bag of cement was lowest in the Central and the Southern regions and highest in the Western region. The Commission felt that the lower cost of the Southern and the Central regions may be attributed to the lower cost of raw materials and transportation expenses.
- 3.9 The Tariff Commission has indicated that the retail price of cement in India is second highest next only to Japan. According to the Commission, the retail price of cement is lowest in China. The Tariff Commission felt that the high retail cost of Indian cement can be attributed to the following factors:-
 - (i) High cost of raw material;
 - (ii) High power cost;
 - (iii) High transportation cost;
 - (iv) Dependence on road transport for movement of clinkers to cement; and
 - (v) Profit motive of the cement companies

Cost of raw material

- 3.10 The Committee was informed that difficulty in procuring various inputs like coal, fly-ash, limestone also raises their cost. As already mentioned earlier, fly-ash has now been made a saleable commodity and, therefore, it has become costlier than before. The Committee was also informed that due to short supply of coal through linkage, the companies have to source coal from open market, imports or pet coke. This increases the cost of production. Soaring capital cost of plant and machinery also raise the price of cement.
- 3.11 The Cement Manufacturers Association (CMA) stated that though prices of coal rose by seven times, royalty and other costs went up by four times, and the minimum wages also increased by seven times, but the cement prices have hardly gone up by 2.9 times. They have felt that if the price is maintained at `150/- then by 2011 half of the plants would become sick.
- 3.12 The Committee observes that increasing cost of raw materials for cement is one of the reasons for increase in cement prices. Moreover, source of raw materials at selected regions of the country and making those available at other places have also caused wide variation in prices. In view of this, the Committee recommends that there should be fair tax/duty structure for the import of raw materials for cement industry and open market procurement thereof. The Government should also attach top priority to encourage application of nano-technology in the production of cement in view of the limited and finite nature of mineral resources available in the country.

Transportation Charges

Cement is a transport intensive industry. The Committee was informed that transportation component involves about 20% cost of production. Regarding transportation cost of cement, it was informed that in India it was around Rs. 1.03 or Rs. 1.04 per tonne kilometer. That is the reason why cement companies are seeking more wagons. It was pointed out to the Committee that the cost rises high when the material is unloaded and carried on road for further distance. If the material is brought from or taken to hinterlands, transportation cost by road increases. The industry depends heavily on road transport for movement of clinker to cement. J.K. Cements informed the Committee that transportation cost by truck transport over a period of last 10 years has increased by about 60%. Moreover, the transportation cost and delivery cost of the cement to most of the big consumer centres and even for tier 2 and tier 3 cities and villages have been greatly affected by ever rising railway transportation cost, both for input materials like coal and gypsum and more glaringly for clinker and cement. Non availability of rakes is also a problem which is frequently faced by several cement plants. The Railway Board stated that cement industry is a major customer of the Indian Railways. Since cement industry has planned to double its production, the Railways have to maximize the efforts to meet the demand of cement industry. According to the vision 2020 document brought out by the Indian Railways, the Railways would increase the share of cement transportation.

3.14 The Committee was further informed that some of the policy decisions of the railways like steep increase in the carrying capacity of wagons with no corresponding increase in the permissible free time allowed for loading/unloading, erratic and inadequate supply of wagons, inadequate infrastructure

facilities at terminals, frequent shifting of priorities of Rakes, upward adjustments in the classification of cement, clinker and coal, etc. have made rail transportation uneconomical as compared to road transport. But Indian Railways have not been able to address this issue of transportation effectively. Many cement companies find the freight charges very high, whereas for others, non-availability of wagons is a major problem. During its visit to certain cement plants the Committee was informed that variation in cement prices had been considerable due to variation in freight charges.

- 3.15 The Committee recommends that in order to reduce freight charges, Ministry of Railways should address the issues mentioned above with urgency and seriousness. The Ministry should put in place a sound policy on wagon investment scheme without any delay, so that shortage of wagons can be addressed to cope with the future demands of the cement industry, especially at a time when the cement industry is poised for rapid expansion. The Committee also recommends that Railways should increase the share of Cement transportation as per its 2020 vision document.
- 3.16 On the issue of demurrage, the Committee was informed that shortage of logistics at the terminals led to bunching of rakes. It was also stated that Railways had not been able to provide sufficient wagons at plant level besides not being able to develop the terminals where railways rakes can be unloaded in the given time. As a result, there is bunching of rakes from different plants reaching to a destination and heavy demurrages and wharfages are paid by the cement plants.

- 3.17 On the issue of demurrage, the representatives of the Railway Board explained that demurrage is charged on wagons which are delayed for loading. Railways provide nine hours for loading a BCN wagon which carries about 2700 to 2800 tonnes of material. Apart from that, time for placement of wagon at the cement factory siding and cleaning and making the wagon ready for loading is also given. Thus, Railways actually make a wagon available for 13 to 14 hours. In spite of that, if extra time is taken, then demurrage is charged. The demurrage rates are high but they are meant for reducing wagon detention for a long time, so that other customers do not suffer any loss due to delay caused by one manufacturer. For the same reason goods sheds are made to work round the clock.
- 3.18 The Committee is of the view that to reduce the loading and unloading time, there should be round the clock working in goods sheds. Besides, partial mechanization of loading and unloading process can be considered as viable option so that without retrenching labourers, their efficiency can be enhanced. The companies should try to complete the loading process at the shortest possible time so that demurrage charges do not add up to the cost. Similarly, Railways may consider reducing demurrage charges.

Cost of Power

3.19 As mentioned earlier, due to shortage of power supply from grid, cement plants are compelled to set up their own captive power plants. The Committee was given to understand that the State Governments impose duties on captive power generation and insist on payment for a minimum power from Grid. This increases the cost of production. **The Committee has already recommended in**

Para 2.25 for reducing the duties on captive power plants. The Committee further recommends that the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry may pursue the matter with State governments for reducing duties on captive power plants.

Profit motive of the cement companies

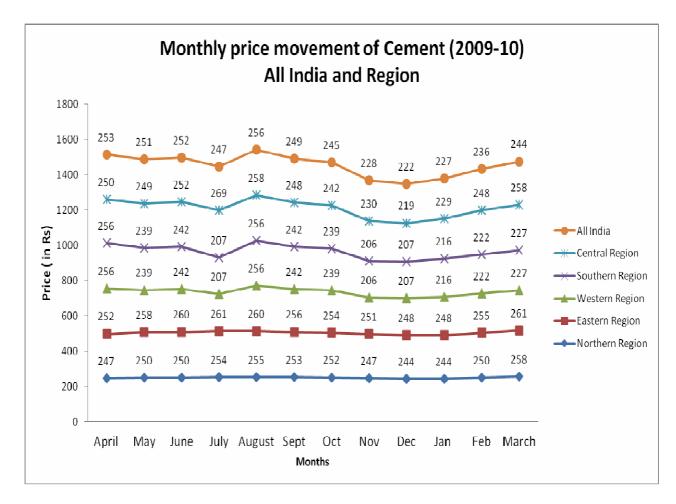
3.20 Tariff Commission, in their Report, indicated profit-motive as one of the reasons other than high cost of production for price-rise. It was reported that there has been a difference of Rs. 52/- per 50 kg bag, between the average Normative Consumer Price and average retail price of cement in the year 2009-10. This difference also accounts for high-prices of cement. Following table gives detailed information on Average Normative Consumer price of cement.

Average Normative Consumer Price Per 50 Kg of Bag of different varieties of Cement

Rs. Per 50 Kg Bag

Particulars	Ordinary Portland Cement (OPC)		Portland Pozzolana Cements (PPC)		Portland Blast Furnace Slag Cement (PBFSC)		Total for All Region and Varieties	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	VAT	VAT	VAT	VAT	VAT	VAT	VAT	VAT
	& ED	& ED	& ED	& ED	& ED	& ED	& ED	& ED
All India Normative	151	151	140	140	126	126	141	141
Price								
Excise Duty considering	15	25	15	25	15	25	15	25
the market price of RS.								
190/ bag and Rs. 250/bag								
All India Normative	166	176	155	165	141	151	156	166
Price with excise duty								
VAT @12.5% and 15.5%	21	27	19	26	18	23	20	26
Total all India	187	203	174	191	159	174	176	192
Consumer Price								

3.21 Against the backdrop of the above calculated fair price, the average month- wise - region-wise actual movement of prices for the year 2009-10 is indicated in the following graph:-



3.22 It may be seen from the graph that, during year 2009-10, all India average retail price ranged from Rs.222 to Rs.256. In the Northern Region, the average price was between Rs.244 to Rs.258. In Eastern Region, the average retail price movement was between Rs.248 and Rs.261/-. The average retail price of cement ranged between Rs.207 and Rs.256/- in the Western and Southern Regions. The average retail price in the Central Region ranged between Rs.219 to Rs.269. The Committee was further informed that during the period from September to December, 2010 the cement prices consistently increased in

certain places of the country. In Calicut and Thiruvananthapuram in Kerala the prices rose above Rs. 300/- per bag during the period. In Jammu in the Northern Region the price rose to a level of Rs. 330/- per bag.

- 3.23 Considering the average retail price of Rs. 244 per bag in the year 200910 and the analysis of data furnished by the selected cement units, the
 Commission felt that the Cement units have sold the Cement at higher rates and
 higher profit to the extent of Rs. 52/- per bag considering the maximum levy of
 Excise Duty (ED) & Value Added Tax (VAT). According to the Commission there
 is a scope for reduction in the consumer price of cement. It is a well known fact
 that the increase in the retail price of cement will adversely affect the growth of
 infrastructure and construction industry. Therefore, Tariff Commission proposed
 to review the fair price of production of Cement on a yearly basis in order to
 monitor the movement of retail prices vis-à-vis fair price.
- 3.24 The Committee is dismayed to note that one of the reasons for price rise of cement is profit motive of the cement companies. The calculation of fair price and the average retail price, gives a fair idea about the extent of profit earned by the companies each unit per bag. The higher amount of profit per bag will only add to the burden of the consumer i.e. the common man. This will also affect the infrastructure industry. The Committee, therefore, strongly recommends that the Government should establish a statutory regulatory authority to regulate the prices of cement to curb the tendencies of market dominance, under-utilization of capacity and artificial scarcity.

Chapter IV

Cartelisation

- 4.1 As has been mentioned earlier, there are seven major cement producers having 60% of the market share. It was brought to the notice of the Committee that these major players control the market and are in a position to dictate both market trends and prices. Considering organized shortage of cement supply in various regions of the country and increased operating profit of the industry, even during the recent recession, the Committee sought to know whether there was some sort of cartel operating in the industry.
- 4.2 While deposing before the Committee, the representatives of Builders' Association of India (BAI) cited some cases filed in Monopoly and Restrictive Trade Practices (MRTP) Commission against cement companies for raising prices and indulging in unfair trade practices. They also cited the verdicts of the Commission in which various cement companies were held guilty of forming cartel and 'cease and desist order' was issued against them. They further corroborated their point by quoting news from a leading news paper about Associated Cement Companies (ACC) and Ambuja Cement, both part of Holcim group of Switzerland, walking out of Cement Manufacturers' Association. The Committee was informed that both these companies had done so, for the fear of being charged with the allegations of caretelisation in Europe as Cement Manufacturers' Association has the reputation of forming cartels and following unfair trade practices. The BAI stated that the said companies resigned from the membership since they feared punitive action from Competition Commissions of other countries, and the Competition Commission of India does not have any power to deter such companies in India itself, BAI felt.

- 4.3 In order to obtain information regarding current status of the law to check cartelization, the Committee heard the representatives of Ministry of Corporate Affairs and Competition Commission of India(CCI). The Committee was informed that Competition Commission was established under the Competition Act, 2002 and deals with all matters relating to cartelization.
- 4.4 Section 3 of the Competition Act 2002 deals with anti-competitive agreements, cartel or cartel like behaviour. Section 4 relates to abuse of dominance while Section 5 and 6 deal with combinations or regulation of combinations. It has the provisions related to cross-sectoral holdings, take overs, mergers or consolidation. According to the provisions of the Act, the companies with assets of above Rs. 1000 crore or turnover above Rs. 3000 crore, should notify about their takeovers or mergers. If the Competition Commission does not find any appreciable adverse impact, then it can give assent to the merger or the takeover.
- 4.5 The representatives of the Commission informed the Committee that Section 3 & 4 had been notified where as, Section 5 & 6 have not been. It was further stated that under Section 3 & 4, 38 cases have been registered. The representatives also added that 50 cases had been transferred from Monopolies and Restrictive Trade Practices (MRTP) Commission to Competition Appellate Tribunal.
- 4.6 Explaining about the functions of the Competition Commission, the representatives of the Commission explained that one of the main functions of the Competition Commission is advocacy of competition which is enshrined in Section 49 of the said Act. Under this all the stakeholders are educated, sensitized and inspired to follow the Competition Act. When the Committee

sought to know as to why the Commission has not taken up monopolistic or cartelization like situation in cement industry, it was replied that the CCI has published several literature explaining about the procedure to view a combination, control and check cartel, etc. The representatives felt that the Commission is a new set up and to enact and concretize all these things, capacity building is essential. To achieve this, according to the representatives of the Commission, professionals, basically economists, lawyers, financial analysts chartered accountants have been recruited to analyse data, and they are being trained along with others from the advanced countries.

- 4.7 Sections 42 to 48 of the Act deal with powers of penalty. But before imposing penalty, show cause notice is issued and the accused is given opportunity to give explanation. All these things take time. But the Commission has considerable power to impose penalty on the defaulters. The companies found guilty may have to pay three times the annual profit or ten per cent of the turn over. Non-compliance of instructions under Section 42 to 48 may incur heavy fines.
- 4.8 The Committee was informed that in order to establish an offence properly, it is essential that the Commission possesses all evidence. Under Section 19 and 26, the Commission can take *suo-moto* action, if prima-facie it feels, there has been any non-compliance of the act, following which the Director General conducts a detailed investigation of the case. Sometimes, the dawn raids are also done which allow the Commission officials to check and seize the documents of a company. But for that, the Commission has to give application and get warrant issued by the judicial court. Meanwhile, the concerned company gets inkling of the events and hides away the objectionable elements from the

site.

- 4.9 It was also stated that the Commission can also get study done by institutions to receive authentic information. The Commission informed that it has collected huge material about the cement industry. It is about the profits, global trends, input costs and much more. In 2007, it got an academic study done by the Jawaharlal Nehru University, New Delhi. According to the study, since 2004-05 post mergers of the companies have increased. These mergers can be scrutinized under sections 5 and 6. According to the Commission, one contradictory trend that is noticed, is that in spite of high installed capacity, production is far below the capacity. In Southern region in last two-three quarters of the year 2009-10, installed capacity has increased but the price level has been on the rise continuously. It was stated that as there was no authentic data available in this connection and no formal complaint has been received, no investigation order has been given by the Commission. The MRTP Commission had issued seize and desist order against the respondents in two cases of this type. Except these referred cases, no formal complaints have been received by the Commission. The facts that have come to light show that price-rise is there and in many cases, price-rise is much higher than the rise in input-cost. But due to lack of authentic data, no suo motu action could be taken by the Competition Commission. The Committee was informed that the Commission can take action only when it receives some complaints or the case is referred by the Ministry. It can take suo motu action only when some concrete data is available.
- 4.10 The Committee recommends that Competition Commission of India which was constituted to check restrictive trade practices across the country, should be strengthened legally to enable it to take *suo motu*

action in all such cases. Proper infrastructure may be developed for the Commission, so that it can obtain requisite information and can take *suo motu* action and exert its powers effectively.

- 4.11 The Committee also strongly feels that already installed capacity for cement production should optimally be used to prevent artificial scarcity. The Committee, accordingly directs the Department of Industrial Policy and Promotion to take strong action against such non-performing cement industries.
- Replying to a query regarding notification of different sections of the Competition act in a phased manner and inordinate delay in notifying Sections 5 and 6 of the Competition Act, the representatives of the Commission stated that the Act was passed in 2002 but got entangled in legal challenges. When the entire Act got passed in 2007, it was brought into force in shortest possible time. But the Sections 3, 4, 5 & 6 could be enforced only after the establishment of the Commission. The Commission was set up in March, 2009. In May 2009, Sections 3 & 4 and other remaining Sections, except 5 & 6 and other Sections relating to these Sections, were notified. It is provided in the Act that different sections of the Act can be notified at different times. It was stated that Sections 5 & 6 relating to mergers and amalgamations could not be notified because the Ministry received many representations from various organisations against these Sections. They argued that these Sections may prove to be harmful for industrial growth. As the Competition Act is meant for industrial growth, unhampered development of competition, welfare of consumers and efficient use of resources, the discussion regarding enforcement of Sections 5 & 6 are progressing towards the end. The Ministry assured the Committee that very soon some decision

would be taken on this issue.

- 4.13 However, the Committee during the course of evidence pointed out that the Competition Act, 2002 was passed with much delay and the main thrust of the Act lies in Section 5 & 6 which have not been notified till date without having any reason therefor. This tantamounts circumventing the powers of Parliament and there should be a time limit within which this important Sections should have been notified.
- 4.14 The Competition Act, 2002 was passed by the Parliament to check unfair trade practices and to promote healthy competition. But, the Committee is at dismay to note that Sections 5 and 6 of Competition Act, 2002 pertaining to Combination and Regulation of Combination which are very effective to check mergers and amalgamations are yet to be notified. The Committee recommends that the Department should take immediate action to notify these Sections to check unfair trade practices.
- 4.15 The Committee strongly recommends that there should be a time limit for notifying all Sections of a particular Act, which has been already passed by Parliament, failing which it should be treated as violation of parliamentary privileges. In case the Government wants any further modifications in the Act already passed by Parliament, the Government should come back to the Parliament with an amendment Bill within that time limit. In the instant case, these Sections should be notified and come into effect immediately.
- 4.16 In regard to cartelisation, the Tariff Commission, in its study, was of the view that cartels are implicit or tacit arrangement involving producers' act, in unison, that enables the manufacturers to exercise monopoly power.

According to the Tariff Commission, some characteristics that can be attributed to cartel are small number of firms, similar cost behaviour, demand fluctuation, homogenous character of product and strong association, etc. They have indicated that, in India, 23 companies in the cement industry command about 70 per cent of the market share and almost all the companies have similar cost structure and a strong association. Mainly, price movements in the three regions (Central, Southern and Western) are similar; the price movement pattern in the other two regions (Eastern and Northern) is also similar. The Tariff Commission, therefore, observed that the possibility of existence of cartelisation in Indian cement industry cannot be fully ruled out. They have suggested that this needs to be further investigated. However, the Tariff Commission expressed its inability as it is not the appropriate agency and it does not have the mandate to investigate and/or establish the possible existence of cartelisation.

4.17 In view of the above the Committee recommends that the Government may order an independent study on the existence of cartelization in the cement industry. The Competition Commission may also be asked to look into the matter. The Committee also recommends that the Government should take adequate penal measures so that no cartelisation takes place.

CHAPTER-V

The Environment issues

- 5.1 The Committee believes that environmental pollution is an issue that works as a big impediment in the way of sustainable development. Although, as has been stated before the committee, the cement industry employs the most modern technology to reduce pollution, yet various stages of cement production and transportation cannot be considered to be free from causing environment pollution. Keeping this aspect of the industry in mind, the Committee decided to investigate the issue.
- 5.2 Representatives of Ministry of Environment & Forests and Central Pollution Control Board (CPCB) submitted that the Industry consumes about 303 million tonnes of lime stone and 30 million tonnes of coal. Dry process of cement manufacturing dominates upon the semi-dry and wet processes due to higher capacity of production and better energy efficiency.
- 5.3 It was brought to the notice of the committee that dust, Oxides of Nitrogen (NO₂) & Carbon Dioxide (CO₂) are major air pollutants emitted in various stages of cement production viz: mining, transportation of material, cement manufacturing process and loading/unloading of cement. The Committee was also given to understand that the following processes of the cement industry cause pollution:
 - (i) Crushers, raw mill, coal mill, kiln, clinker cooler, cement mill, plants are various sections in cement plants which account for dust generation.
 - (ii) Oxidation of sulfur compounds present in raw materials and fuel lead to emission of sulphur dioxide.
 - (iii) Cement plants are also responsible for emission of nitrogen oxide. There are wide variations in emission range i.e. 400-1300 mg/Nm³.

- (iv) Cement plants also emit carbon dioxide (CO₂) which is the main constituent of Green House Gases. Calcinations of limestone emits 50-55%; combustion of fossil fuel emits 40-50% CO₂; and electricity consumption causes 0-10% CO₂ emission.
- (v) Overall, 0.85 tonnes CO₂ is emitted during the production of one tonne cement. An amount of 0.234 kilogram of particulate matter, 1.5 kg. of sulphur dioxide and 3.00 kg. of oxides of nitrogen are emitted for the production of same quantity of cement.
- 5.4 The Ministry of Environment and Forests also informed the Committee that they have developed emission standards in April, 1987 for control of air pollution and revised them in February, 2006. It also notified stricter Ambient Air Quality standards which were amended in November, 2009.
- 5.5 The Committee was also informed that the Ministry ensures inspection of industries under Environmental Surveillance Squad (ESS) and issuance of consent to operate under Air Prevention & Control of Pollution Act, 1981 by State Pollution Control Boards. The Ministry developed guidelines for control of fugitive emissions in 2007 and for co-processing of waste in 2010. It was also brought to the notice of the Committee that the Ministry has emphasized the use of Industrial solid waste like Fly-ash and Blast furnace slag since 1999 and promoted co-generation of power by Waste Heat Recovery since 2003.
- Union emission standards for large cement plants is 30 mg/Nm³ the Indian emission standards for existing large cement plants is 100 mg/Nm³ for cement plants, including grinding units, located in critically polluted or urban areas with a population of one lakh and above and 150 mg/Nm³ for plants other than those falling under above category. The Committee is horrified to learn that for mini cement plants the standard is 400 mg/Nm³. The Committee strongly recommends that emission standards should be

uniform for all plants and there should not be such huge gap between Indian emission standards and international emission standards. The Committee also impresses on Department of Industrial Policy and Promotion to direct all plants to comply with emission standards by using state-of-art technology. The Committee strongly recommends that all cement manufacturers should comply with the corporate responsibility for environment protection.

- 5.7 According to the Ministry of Environment and Forests, Cement industry has taken many steps for pollution control and installed systems like Multicyclone (installed during pre 1990 era), Electrostatic Precipitator, Bag filter and Hybrid filter for control of particulate matter emission. The Ministry informed the Committee that the cement industry has taken the following steps to reduce environment pollution:
 - (i) Substitution of clinker by using Fly ash and blast furnace slag has resulted in reduced emission of pollutants per tonne of cement production.
 - (ii) Total fly-ash generated by power plants is 130 million tonnes per year out of which 34 million tonnes is utilized by cement plants.
 - (iii) Steel plants generate 13 million tonnes blast furnace slag per year and 8 million tonnes is utilized by cement plants.
- Thus, according to the Ministry, utilization of fly-ash and blast furnace slag reduces dust emission by 9800 tonnes per annum and CO₂ emission by 33.6 million tonnes per annum. It also contributes to conservation of lime by 67 million tonnes per annum.
- 5.9 The Ministry of Environment and Forests informed the Committee that coprocessing of industrial waste other than fly-ash and blast furnace slag would give several benefits some of which are enumerated below:-

- a) Conservation of fossil fuel resources
- b) Reduction in load on Treatment, Storage & Disposal Facility (TSDF) for hazardous waste.
- c) Immobilization of toxic and heavy materials present in waste.
- d) Reduction in energy cost.
- e) Reduction in Green House gases emission (CO₂) & Clean Development Mechanism (CDM) benefits.
- 5.10 The Ministry also stated that so far wastes like paint sludge, ETP sludge, refinery sludge, TDI tar, plastic waste, tyre chip have been successfully coprocessed in trial run. The Ministry also felt that waste oil, solvents, refuse derived fuel are other potential wastes that can be co-processed in cement manufacturing.
- 5.11 The Committee feels that development and environment should go hand in hand and Government and corporates should work together to achieve this. Cement sector should show commitment for compliance of environmental regulation on sustainable basis. The Committee recommends that the cement industry should adopt energy efficient measures for reduction of CO₂ emission. Shifting to more efficient processes like Vertical Roller Mill (VRM), high efficiency cooler etc., can also be useful. The industry should also adopt better operational control and scale of production for better environmental conservation. More use of alternative fuels, co-processing of industrial solid wastes and waste heat recovery for natural resource conservation and developing emission standards for oxides of Nitrogen also prove to be helpful in environment conservation.
- 5.12 The Committee also feels that the co-processing of wastes of cement plants that have successfully been put to trial run by the Ministry need to

be commercially implemented. The Committee desires that both the Ministries of Commerce and Industry and Environment and Forests may take necessary steps in this direction. Necessary guidelines may also be framed for this purpose. The cement plants, particularly the modern and the new ones, should start co-processing of waste oil, solvents, refuse derived fuel as suggested by the Ministry of Environment and Forests.

- 5.13 Ministry of Environment and Forests informed that the cement industry in the country is much better than many other polluting industries in terms of compliance of rules. The number of units found violating pollution control norms are not many. In fact, as of now, only seven cases were detected by the Central Pollution Control Board (CPCB) against which they have initiated action.
- 5.14 The Committee visited one of the seven non-compliant cement plants namely, M/s Malabar Cement, Palakkad in July, 2010.
- 5.15 The Committee was informed that the Central Pollution Control Board (CPCB) issued directions on May, 2010 to Malabar Cement Ltd. under Section 5 of the environment (Protection) Act, 1986 mainly to:-
- (1) Install new common bag house for kiln and raw mill by 31st March, 2011; and
- (2) Install dust collectors at clinker storage vent and clinker storage top by 30th September, 2010.
- 5.16 The Management of the M/s Malabar Cements Ltd. assured the Committee that they would be meeting the requisite environmental norms within the period of 18 months. The Committee desires that the Government should review all such cases from time to time.
- 5.17 According to the Ministry, lime stone, which is the main raw material for cement is mined and there are some associated problems with mining. It was

stated that environment-friendly practices in the field of mining are also, promoted so that the damage is reduced. These include reuse of waste material and green belts, water reduction and more scientific mining technologies.

- 5.18 In regard to identification of areas suitable for setting up a cement plant, the representatives of the Ministry of Environment and Forests stated that certain methods are employed for this purpose. One such method is called carrying capacity studies. This study tries to find out what type of pollution will be caused if many types of industries are set up in a specific area, and how it can be tackled. For this the Ministry implemented Environmental Impact Assessment System. Besides, wherever forest land is converted to non-forestry purpose, one has to take permission under Forest Conservation Act, 1980.
- 5.19 The Committee was given to understand that if some plant is on the sea coast of the country, it has to take permission from Coastal Regulation Zone Management Authority. The Committee is, however, constrained to note that by and large, our country has not followed the zoning system. If the zoning system is followed, problems of those types would be very few. The Committee desires that the guidelines may be prepared in this regard and implemented.
- 5.20 The Committee recommends the Department may take up the matter with the Ministry of Environment and Forests, so that a Committee of experts may be constituted to work out the possibility of having zoning system in the country.
- 5.21 The Committee was further informed that the Central Pollution Control Board, at the Central level, with six regional offices, and the State Pollution Control Boards in the states and Pollution Control Committees in the Union

Territories ensure compliance of pollution norms. The important Acts are the Water (Prevention and Control of Pollution) Act, the Water Cess Act, 1977, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment Protection Act, 1986. The Environment Protection Act is an omnibus Act which gives wide powers and a series of notifications have been issued for diverse subjects including electronic waste, biomedical waste, municipal solid waste, etc. The Committee came to know that there are specific powers under relevant sections of these Acts to take action if units are found violating the norms. The industry can be fined and can be closed also. The representative of the Ministry submitted that there is a need to increase awareness amongst the civil society as well as the cement manufacturers not to violate the norms fixed for the purpose. He also emphasized on the need to strengthen the Central and State Pollution Control Boards, as State Governments do not give much importance to Departments of Environment.

5.22 The Committee, while agreeing that there is a need to increase awareness among the stake-holders not to violate norms, also feels that there is a lack of awareness among the public about the norms fixed under various notifications/Rules/Acts etc. There is, therefore, a need to give due publicity to the norms through the media and in their website. The Committee recommends that the Ministry may give due attention to this aspect as well. The Committee recommends that in order to implement the various notifications of CPCB strictly, all these notifications should be displayed prominently on the web site and other effective measures should also be adopted for making this valuable information available to the public in a consolidated manner. The Committee also recommends that there

should be complete co-ordination, collaboration and co-operation between the states, local bodies and Central Government. The Committee observes that norms/ guidelines of Central Pollution Control Board (CPCB) should be followed by all State governments without fail and the Department should pursue the matter with all State governments regarding pollution making cement industries from time to time.

5.23 The annual financial aid given by the Centre to the States should be linked to their contribution in pollution reduction. Similarly, the cement plants that employ eco-friendly technology may be given incentives and the pollution-causing plants may be heavily penalized.

CHAPTER - VI

Cement Concrete Roads

- 6.1 Infrastructure development is one of the prime requirements for the country's economic development. Efficient movement of man and materials in terms of speed and safety need to be given top priority while prioritising infrastructure components. The Committee was informed that recognizing the need of the hour, the Government took up the development of highways/roads by constructing/ improving the highways/roads network through the programmes of Golden Quadrilateral and North-South, East-West corridors as also rural connectivity roads through Pradhan Mantri Gramin Sadak Yojana (PMGSY).
- 6.2 The Committee noted that India has a road network of 33 lakh k.m. Out of which, around 80% consists of rural roads and only 2% consists of National Highway. Out of this 2% of National Highway 12% roads are concrete roads and 88% are bituminous roads. The Committee is constrained to know from the Indian Roads Congress (IRC) that 40% of the roads in countries including USA, West Germany and Austria, have cement concrete, where as India has only 2% of total length of roads made with concrete. According to them, one reason for this is limited resources, and another is unreliable cement industry. The cement industry switched from Ordinary Portland Cement (OPC) to Pozzlana Portland Cement (PPC) or blended cement which utilizes fly-ash as raw material. Since fly-ash is provided free of cost to cement plants, manufacturing of PPC became more cost effective for the industry but the industry did not pass this benefit to Similarly, price-fluctuations in cement market also work as a consumers. deterrent for the constructors. It was brought to the notice of the Committee that approximately 1000 tonnes of cement is required for the construction of one

kilometer length of two lane wide concrete road. If the entire length of around 66,000 km of National Highways is constructed with cement concrete road, then 66 million tonnes of cement will be required. The Committee feels that if this can be done, there will be a huge demand for cement from the highways. However, it needs to be kept in mind that highways are only 2% of the total road stretch in the country.

- 6.3 With regard to current status of cement concrete roads in National Highways Authority of India (NHAI) projects, the representatives of Ministry of Road Transport and Highways informed the Committee that the Ministry had issued a circular in 1998 in which it had directed that the Government should construct cement concrete road especially in high rain fall area, urban areas etc., where these roads are more durable and their maintenance cost is also less. It was brought to the notice of the Committee that since 1998, National Highways Authority of India (NHAI) constructed 2862 kilometres of cement concrete roads while 21,751 kilometres of bituminous roads have been done. Thus concrete roads are about 12% and bituminous roads are 88% in NHAI projects.
- In view of the vast potential of construction of cement concrete roads in India, the Committee felt that it was necessary to study its usefulness, advantages and disadvantages vis-à-vis, the bituminous roads. In order to get detailed information on Cement Concrete Roads, the Committee heard the views of representatives of Ministries of Road Transport and Highways, Rural Development, Defence & Border Roads Organisation (BRO), Central Road Research Institute (CRRI) and Indian Roads Congress (IRC).

Selection of roads for cement concrete

- 6.5 In regard to selection of roads for cement concrete, the Indian Roads Congress (IRC) informed the Committee that the choice of type of road, whether cement concrete or bituminous has to be done at the planning stage itself. There are several crucial factors for consideration at the planning stage i.e., the geotechnical nature of the terrain, drainage conditions of the terrain, availability of raw materials and availability of skilled manpower etc. The other important factors for selection of pavement type are initial construction cost and subsequent maintenance cost.
- They further informed that the concrete roads are preferred where the natural ground available is of average strength, which can support the loads of the rigid pavement and traffic thereon. In case of very weak soil, it may not be advisable to provide the concrete road as the same may crack due to weakness in the ground supporting it. Black cotton soil is one such surface. In hilly or rolling terrain, rain water comes on the slopes and is drained along the natural drainage channels which at times overtop the roads. There are also instances when the road remains inundated for rather longer durations during the monsoon period. In such situations also it may be advisable to provide a concrete road rather than a bituminous road.
- 6.7 According to IRC, the selection of cement concrete roads should also depend on the availability of raw material. For example, if there is a refinery nearby and availability of bitumen is not an issue, then it is advisable to go for a bituminous road rather than a concrete road to save transportation cost of bitumen. Similarly, if good quality aggregates are not available in an economically reasonable distance, then it is advisable to go for a concrete road,

since, overall consumption of aggregates in case of concrete road is less as compared to any bituminous road. Similarly, if the cement plant is closer to the location where the road is being constructed, then it is advisable to go for a concrete road provided other conditions are favourable.

- In regard to the technology used, the IRC felt that construction of concrete roads is technologically intensive compared to bituminous roads. The production and placing of concrete is much more complex than the bituminous mix. The availability of good quality aggregate, cement and skilled manpower are, therefore, of prime importance for successful laying of concrete roads. It was further added that the equipments used for production and placing of concrete slabs are much more sophisticated than the one used for construction of bituminous roads.
- In regard to cost of construction and maintenance of concrete road, the IRC stated that cost is the major factor in selecting the type of road to be constructed. While the capital cost for constructing a concrete road is about 30% higher than that of bituminous road, the maintenance cost of a concrete road during its designed life (which is about 30 years), is much less than the maintenance cost over the same period in case of bituminous roads. Thus, according to IRC, on a life cycle cost analysis the concrete road may prove to be cheaper than the bituminous roads.

Advantages and disadvantages of Cement Concrete Roads

6.10 Central Road Research Institute (CRRI) has made an analysis of the advantages and disadvantages of using cement concrete for roads. On the basis of their analysis, the advantages and the disadvantages are enumerated hereunder:

6.11 Advantages

- (i) Due to sunrays and oxidation process bituminous roads become hard. Consequently the roads get chipped and suffer damage. Thus, bituminous roads require repair every 4-5 years. In rainy areas, due to water logging, bituminous roads get damaged badly and need repair even earlier. But in case of concrete roads, water logging has a different effect. Unhydrated parts of concrete roads gain strength from water. Concrete, being a hard and compact material, does not suffer from deformation.
- (ii) Concrete roads are capable of taking any amount of extra load. In our country where limits on overloading are not strictly enforced, concrete roads are better option because overloading is a major factor impacting the life of our roads.
- (iii) Concrete road provides solution for disposal of various environmentally hazardous materials like fly-ash, slag etc. Many countries are using this technology for sequestration of carbon dioxide in concrete roads.
- (iv) Bitumen is not imported as bitumen is a by-product of petroleum products and availability of bitumen depends on availability of petroleum products. Since, the gap between demand of petroleum products for various purposes and its supply is widening day by day, availability of bitumen is also fast decreasing. With the capacity of cement plants increasing manifold, concrete roads can replace bituminous roads.
- (v) Oil spillage on bituminous roads damages it. But, concrete roads sustain it well. So in parking lots, airport aprons, turning pads where chances of oil leak are higher, concrete roads can be seen as a better option. Its riding quality remains intact for years.
- (vi) Concrete is safer for night driving because unlike bituminous roads, it has a light coloured surface.
- 6.12 The CRRI informed the Committee that in order to investigate whether there was any significant saving in fuel consumption on a concrete road as compared to a flexible pavement under identical conditions of road roughness, vertical profile, vehicle speed and load carried, CRRI in collaboration with Dr. L. R. Kadiyali and Associates conducted a research on Fuel Savings on Concrete Roads. The study was sponsored by Cement Manufacturers' Association. The study concluded that fuel savings on cement concrete roads varied from 5% to 15% depending on certain parameters as given in the table below:-

Fuel Consumption of Flexible and Concrete Surfaces at 40 Km/hr Speed for Various Truck Loads

Gross Truck Weight (T)	Fuel Consumption at 40 Km/HR Speed (cc/km)		Savings on Concrete Road (cc/km)	% Savings
	Concrete	Flexible		
5	228.77	242.98	14.21	5.8
10	279.67	309.91	30.24	9.8
15	330.59	376.82	46.23	12.3
20	381.50	443.73	62.23	14.0
25	432.40	510.63	78.23	15.3

6.13 From the above table, the Committee notes that there is a clear advantage for cement concrete roads in respect of saving fuel consumption vis-à-vis bituminous roads. In view of the scarce fossil fuel sources, it would be desirable to have cement concrete roads wherever other factors are favourable.

6.14 Disadvantages

- (i) Bituminous road is a smooth joint less road whereas, concrete road has joints. These joints get filled with water, cracks appear and their sealing compound dug out and need repair again and again.
- (ii) Vehicles moving on concrete roads produce comparatively more noise.
- (iii) Tyres of vehicles on concrete roads get worn out earlier than on bituminous roads.
- (iv) The construction and maintenance of concrete roads is more complex and technically intensive as compared to the maintenance of the bituminous roads.
- (v) Curing period for cement concrete roads is a limitation as concrete needs to be moistened with water to gain strength, and during the period, concrete is watered, no vehicle can be allowed to pass on it.
- 6.15 In regard to curing of concrete road, the Committee was informed that curing compound spray works as a substitute for water and gives strength to concrete. Thus the need of water for curing has been done away with. Now, with the new technology the process can be hastened. Instead of three weeks it

can be reduced to two weeks. There are certain admixtures which give strength to concrete in less time.

- 6.16 The Committee is of the view that there is a vast potential for cement concrete roads in India, particularly highways. Taking into account the advantages of cement concrete roads, the Committee strongly recommends that the Government should consider constructing cement concrete roads wherever it is technically feasible.
- 6.17 The Committee also takes note of the fact that 40% of the roads in developed countries such as U.S.A., West Germany etc. are made of cement concrete whereas it is only 2% in India. The Committee, therefore, recommends that roads and highways should be made of cement concrete bringing at par with the international norms and standards. The goal should be to reach international level.
- 6.18 While formulating proposals for four-laning, expressway, new bypasses including forthcoming Build Operate Transfer (BOT) projects on
 Public Private Partnership basis, the Government should give long term
 construction-cum-maintenance contracts for constructing these roads.
 This will encourage the contractors to opt for cement concrete roads as the
 total life cycle cost of cement concrete roads, which includes the initial
 cost over the designed life and other operational cost, is approximately 2530% less than that of bituminous pavement.
- 6.19 The Committee takes note of the new technology by which the use of water and the period can be reduced for curing the cement concrete. The Committee strongly recommends that this technology should be extensively used in all construction activities.

6.20 The money saved in maintenance by constructing cement concrete roads can be utilized for creating road connectivity in rural and other inaccessible areas.

Rural Roads

- 6.21 The representatives of Ministry of Rural Development informed the Committee that to overcome the problems linked with poorly drained built up areas in villages, the Government is implementing the Pradhan Mantri Gramin Sadak Yojana (PMGSY) in rural areas. Under this scheme, 10% of total length of the roads to be built, will be constructed with cement concrete. The Ministry has instructed the State Governments to take up the Technology Demonstration Project on Cement Concrete Roads under PMGSY with the following conditions:-
 - 1 Clear estimates would be prepared for base cost for bituminous road and CC road.
 - 2 The difference in cost between CC road and bituminous road would be shared by Centre & State concerned on 50:50 basis. The central contribution on this account would not exceed 15% of the base cost.
 - 3 The pilot project will be only under normal PMGSY and not for any externally funded project.
 - 4 Since it is a Technology Demonstration Project, not more than 10% of the road works should be taken up under this dispensation.
- 6.22 The Ministry also stated that several states have taken up concrete roads under this project. It was further stated that in PMGSY, the Government is following the guidelines of Indian Roads Congress which works with the Ministry of Road Transport and highways as a standard setting body. They further informed that the initial cost of one kilometer of bituminous roads is Rs. 29.42 lakh while that of cement concrete road of same length is Rs. 41.33 lakh. Life cycle cost of one kilometer bituminous road is Rs. 49.054 lakh while life cycle cost of cement concrete road for the same length is Rs. 43.070 lakh.

- 6.23 The representatives of the Ministry observed that although it appears that cement concrete roads have advantages such as longevity, lesser maintenance cost etc., their construction is very sensitive to various issues such as:-
 - Even occasional passage of heavy vehicles may lead to breaking of the C.C. Slab, which in turn warrants total replacement.
 - 2 Proper quality control and technology adopted for construction with high end equipment in the remote areas.
 - 3 Degree of drainage management system to avoid damage.
 - 4 Local repairs are not possible but requires total reconstruction, in case of failure.
 - 5 CO₂ emissions are higher for construction and operation of Cement Concrete Road.
- 6.24 It was further stated that large scale Cement Concrete Road construction is likely to result in substantial delay in achieving the targets under the PMGSY with available funding. The Ministry, therefore, felt that it would like to continue the policy of cost sharing of limited number of Cement Concrete Roads only where they are warranted, based on site conditions.
- 6.25 In regard to the quality control in the rural roads, it was stated that even with flexible roads, maintaining quality is a problem and in certain States the percentage of roads that have been found unsatisfactory goes as high as 70 per cent or even more, and such roads have to be re-laid.
- 6.26 The Ministry further argued that PMGSY has expanded much beyond what it was conceived at the initial stage. Therefore, financing these roads would also be a serious problem because presently the Ministry is wrestling to complete the works that they have taken up.
- 6.27 On a query regarding maintenance cost, the representatives of the Ministry informed that at the time of sanctioning of the road, they calculate the maintenance cost for the first five years because the construction and

maintenance is to be done by the same contractor and depending upon the soil, traffic and rainfall, it varies between 8 and 10% of the construction cost over five years. Since funding through PMGSY is provided only for construction, states have to bear the entire maintenance cost.

- 6.28 The Committee observes that the provision of 50% cost sharing by State government in case of cement concrete roads and placing the responsibility of sharing maintenance cost to the respective state will only discourage the State governments from going for concrete roads under the PMGSY. Instead, the Government should make provision to encourage the states opting for concrete roads.
- 6.29 The Committee also observes that the condition of constructing 10% roads with concrete under Pradhan Mantri Gramin Sadak Yojana (PMGSY) is not sufficient. Cement concrete roads are labour intensive and are ideally suited for rural roads. The Committee, therefore, strongly recommends that the percentage of cement roads under the scheme should be increased. The Committee also recommends that wherever feasible, the rural roads should be constructed with cement concrete.

Border Roads

6.30 The Committee sought to know about the possibility of constructing cement concrete roads in border areas. The Committee, accordingly, heard the views of the representatives of the Ministry of Defence and Border Roads Development Board (BRDB) in this regard. The representatives of the Ministry and BRDB informed the Committee that currently only one percent of total length of border roads is constructed with cement concrete. These roads are made in

the thickly populated areas and in the landslide prone areas or such areas where snow clearance is required. In such areas, bituminous roads get damaged due to heavy snow fall, thus giving rise to the need for frequent repair. In these areas, cement concrete roads prove to be successful in bearing the heavy load of snow and bulldozers.

Representatives of BRO, during the oral evidence, expressed before the Committee about the difficulties and constraints faced by them while constructing concrete roads. They felt that it is a tough job to carry all the sophisticated equipments and machines in hilly and inaccessible terrains. Non-availability of cement also causes problems. During the year 2008-09, 20% less cement was available to BRO because suppliers were reluctant to sell the cement at Directorate General of Supply and Disposal (DGS&D) approved rates, which are lower than the rates of open market rates. Air lifting of the material is a problem because, Indian Air Force lacks required capacity to airlift the material, on Indo-China border. It was further added that getting clearance from Forest Department is also an uphill task. Since, cement is highly sensitive to moisture, it cannot be stored for more than a month. In North-East India, where it rains heavily, it has to be utilized in less than a months' period. These roads, BRO felt, cause more wear and tear of wheels. Apart from it, requirement of curing period also is a deterring factor, although BRO is making and laying concrete blocks rather than making cement concrete surface at the site itself as it will ensure saving of time and continuation of Traffic at a faster pace. Higher initial cost of concrete roads is also a constraint that deters from laying more cement concrete roads.

- 6.32 The representatives of BRO also informed that due to technology upgradation, new bituminous roads are stronger than the older ones. Besides, BRO is also using various additives with bitumen like polymer based additives which increase the strength of the bitumen apart from setting it faster. But, technology upgradation with regard to cement concrete is not to the required extent as these roads are being constructed in selected areas only. The Ministry and BRO assured that the issue of technological upgradation in this field will soon be taken up.
- 6.33 The Committee recommends that cement concrete roads should be preferred in the border areas wherever road transportation, air lifting and storage of cement are favourable. The Committee hopes that the Ministry and BRO would soon take up technological upgradation so that more cement roads are laid. Priority should, therefore, be given for technological upgradation.

CHAPTER - VII

R&D in Cement Industry

Use of Technologies

- 7.1 The principal raw materials for the manufacturing of cement are lime stone, gypsum and sand which are scarcely available. The Committee felt that a research on non-limestone bearing raw material and binders which can partially replace cement is important. In this connection, the Committee heard the views of representatives of National Council for Cement and Building Materials (NCCBM).
- 7.2 The representatives of NCCBM informed the committee that in making composite cement, more than one waste material is used. The Committee, however, expresses its concern to learn from NCCBM that countries like Japan, United States, Canada and European Union employ advanced technology in this field whereas India lags far behind due to absence of prevalent standards in India.
- 7.3 The Committee learnt that various wastes like lead-zink slag, copper slag, steel slag, marble dust, which were not allowed for utilization earlier, have now been identified for blending with cement. Those can be utilized to the extent of 5-15% as blending component or as raw material component or as mineral mixture. It was also brought to the notice of the Committee that, in many cases, the Bureau of Indian standards (BIS) allowed NCCBM to carry out research. The NCCBM, however, regretted before the Committee that the technologies like environment efficient technology or waste utilization technology, cogeneration technologies are not being adopted by the manufacturers, because they do not give good returns. NCCBM, therefore, emphasized on the need to impose

carbon tax on emissions.

- 7.4 Adopting modern technologies is very essential for cement industry. The Committee takes a serious view of the fact that the manufacturers do not adopt them due to low returns. An industry should also be concerned about the environment, the humanity and the future of the society. Accepting the suggestion of NCCBM, the Committee recommends that carbon tax may be imposed. Guidelines may be prepared in this direction.
- 7.5 In regard to use of sand for making cement, representatives of NCCBM stated that nowadays crushed sand is used for cement instead of natural river sand. Crushed sand is obtained from modern crushers, which produce crushed sand of standard requirements. It was, however, felt that for obtaining crushed sand, considerable dust is generated, leading to serious health hazard.
- 7.6 The Committee feels that crushers, being hazardous, should not be permitted near a populated area. Technology needs to be developed to lessen the dust generation and for its collection. The Committee desires that NCCBM may work in this direction.
- 7.7 On the issue of enhancing the use of fly-ash in cement and concrete, the NCCBM informed that so far, the industry has been able to use 30% fly-ash in cement production. The Committee is impressed to learn from NCCBM that study on enhancing its quantity is in progress, and initial results are favourable. NCCBM informed the Committee that, in two years' time, long term durability studies on processing of fly-ash will also be carried out and Bureau of Indian Standards will be approached for accepting NCCBM's recommendation. According to NCCBM, this study will help in reducing the quantity of limestone in cement.

7.8 Committee appreciates this and hopes that the study would yield the desired results. The Committee, therefore, desires that NCCBM may continue the study and transfer the technology, so developed, to the industry.

R &D Projects and Funding

- 7.9 It was brought to the notice of the Committee that NCCBM had taken up small R&D projects with regard to composite cement, but long-term study would be more fruitful. It was also brought to the notice of the Committee that NCCBM had identified 17 areas for R&D in the 11th Five Year Plan. Some of those pertain to areas like co-processing, development of high performance cement, transportation models, bulk packaging of cement, enhancement of fly-ash etc. The Committee, however, learnt that without adequate funding, only a few out of those, have been taken up.
- 7.10 The Committee feels that NCCBM is a major research institute engaged in significant activities relating to development of cement industry. The research work, it is carrying out or proposes to carry out, is very essential for the cement industry to sustain in the long run. Lack of funds should not become an impediment for NCCBM to take up these activities. NCCBM needs adequate funds and infrastructure to carry out research on cement. The Committee, therefore, recommends that necessary funds may be provided to NCCBM for carrying out research in cement sector.

R & D in cement concrete

7.11 The representatives of IRC informed the Committee about new trends and innovations emerging in construction of Cement Concrete Roads. One such

thing is Ultra Thin White Topping (UTWT) of cement concrete, which is provided on already constructed bituminous roads for which IRC has brought out a publication viz., IRC:SP:76-2006 "Tentative Guidelines for Conventional, Thin and Ultra—thin White topping". It was stated that white topping has been done in some areas of Maharashtra and the design life of white topping is 25 years. The representatives, however, conceded that it would be premature to say anything about its life.

- 7.12 Other innovations in this field are pre-cast concrete blocks and concrete cells. Precast cement concrete blocks can be used for parking lots, rural and village roads where traffic load is not heavy. Repair of these blocks is easier. It was brought to the notice of the Committee that the rural roads of Haryana are made with these blocks. But as informed by Ministry of Road Transport and Highways, in the NHAI projects, blocks are done manually. But for better output and quality control and better pavement, concrete pavement has to run like bituminous paver. Concrete paver keeps on running and after 5-6 hours the surface is given texturing, then some grooves are cut and in between some bars are inserted. It requires, at least, 5-6 sets of machines and it is done in a continuous manner. The representatives stated that this will have the same longevity as the machine laid concrete roads.
- 7.13 Concrete cell is made up of 4-5 square inch plastic sheet of 2 mm thickness cut into a grid and filled with concrete and made compact with roller. Once it is set, it becomes solid block. The bigger the size of a block, the more the cracks. Its maintenance in rural areas is difficult.
- 7.14 As pursuance of quality control norms is of paramount significance in construction of concrete roads, IRC explained that its guidelines are followed

across India as a convention. Although IRC guidelines do not have any mandatory or statutory status, yet to maintain uniformity, these guidelines are followed all over India. But the concessionaires under Build Operate Transfer (BOT) on Public Private Partnership basis are given freedom to choose between IRC guidelines or internationally accepted guidelines.

- 7.15 The Committee is of the view that the organisations like IRC should not confine only to conduct research, but they should also advise the Government on important issues, like road conditions and make feasibility study with regard to type of road required, supporting the Government with the results of the studies conducted by IRC. The Committee also evinced interest in white topping and feels that much more is still desired to be done. The IRC and the CRRI should conduct research and trials on this and come out with concrete results.
- 7.16 The Committee also desires that IRC guidelines for constructing roads should be made mandatory even for states and concessionaires in Public Private Partnership projects. For that IRC should be given a bigger role to play.

Nano-technology

7.17 Nanotechnology, is the study of manipulating matter on an atomic and molecular scale. Generally nanotechnology deals with structures sized between 1 to 100 nanometer in at least one dimension, and involves developing materials or devices within that size. Quantum mechanical effects are very important at this scale. Nanotechnology is very diverse, ranging from extensions of conventional device physics to completely new approaches based upon

molecular self-assembly, from developing new materials with dimensions on the nanoscale to investigating whether we can directly control matter on the atomic scale.

7.18 The Committee was given to understand that nanotechnology has the potential to make construction faster, cheaper, safer and more varied. Automation of nanotechnology construction can allow for the creation of roads much more quickly and at much lower cost.

7.19 Explaining about application of nano-technology in construction technology, the representatives of the NCCBM stated that nanotechnology is at a very initial stage. NCCBM started to develop facilities for producing the nanoparticles. At present, they have imported nanoparticles from abroad and started doing some research adding in a small proportion into the existing cement and studying the properties. It was seen that even 2-5 per cent addition of the nanoparticles in cement resulted in 150-200 per cent increase in the physical strength. The representatives however stated that these are very basic initially primitive studies, but results are very encouraging and they are trying to create facilities. They would have facilities for grinding of particles to the nano size and preservation of particles. It was also stated that NCCBM would create facilities for keeping the particle in a nano stage. It was also stated that the Nano consortium has been formed and the results for cement industry are very encouraging. The representatives of NCCBM expressed their hope that with the same amount of cement, they would be able to either achieve much more enhanced performance or for the same level of performance, they would be able to reduce the quantity of cement by as much as 30-50 per cent also.

7.20 On the one hand, natural resources like coal and limestone are limited and soon these will be finished and on the other, the need for cement is ever increasing. To meet this gap, the future of cement industry lies only in nano-technology. It is heartening to learn that with the use of nano-technology, the use of cement can be reduced by 30-50 per cent. If achieved, this will be a positive development. The Committee, appreciating the present research being done on nano-technology in construction, strongly recommends that NCCBM may conduct more research on this and transfer the technology so developed to the industry. Top engineering institutions such as IITs may also be involved in the research on nano-technology. Sufficient funds may be provided to NCCBM and other research institutes for research on nano-technology.

CHAPTER VIII

Labour Issue

- 8.1 The Committee during its visit to various cement plants was informed that cement companies utilize various concessions and benefits from the Government and reap huge profits without giving any benefits to the cement workers. The Cement Wage Board regulates the wages of cement workers. The Committee was informed that the wage of the workers in the cement companies over the last ten years is only Rs. 2800/-, which is the lowest when compared to other industries. It was brought to the notice of the Committee that the wage revisions of the workers was due from April, 2010 but, the Cement Wage Board was not revising the wages. It was also informed that due to lower wages for cement workers fixed by Cement Wage Board, the Cement Corporation of India (CCI) owned by the Government of India opted out of wage board and have made reasonably good wage settlement in tune with the present cost of living index.
- 8.2 Moreover, the health conditions of employees in these plants are also alarming. They are facing serious respiratory problems due to the polluted and hazardous non-friendly working conditions. The Committee, during its visits, also came to know from general public that land acquired for establishing cement factories have rendered, many people unemployed and landless. It was informed that Cement factories established in agriculture-based regions employ local land owners for acquiring their lands, but agricultural-labourers are rendered unemployed and their problems remain unattended.
- 8.3 The Committee recommends that the Cement Wage Board should revise the wages of, cement workers, immediately and while revising it should take into consideration the wages fixed by Cement Corporation of

India (CCI) for its workers and also wages prevailing in other sectors. The Cement plants should also improve the working conditions in their plants by reducing air pollution by strictly following the Ambient Air Quality Standards notified by the Ministry of Environment and Forests. The Committee also recommends that before giving permission for land acquisition for setting up cement plants, the Government should ensure that the interests of the local inhabitants are not compromised and the issue of the unemployed and displaced labour be addressed in right earnest. The Committee further recommends that the cement industry should take the social responsibility of providing all essential facilities to the workers such as education, health, drinking-water, sanitation and insurance cover, etc.

OBSERVATIONS AND RECOMMENDATIONS AT A GLANCE

- 1. The Committee hopes that the target to add 110 million tonnes capacity by the end of the 11th Plan will be achieved. The Committee also feels that while increasing the capacity and adopting modern technology, aspects relating to employment generation should also be kept in view. The Committee also observes that while going for technological upgradation of the existing plants there should not be any retrenchment of labour. (Para 2.8.1)
- 2. The Committee is optimistic about significant expansion of cement industry, because of the construction activity of major infrastructural projects across the country. The Committee feels that there is a need to boost cement demand in key segments of the national economy by giving emphasis on economical low cost mass housing schemes especially in small towns and semi urban areas and also by laying concrete roads wherever feasible. (Para 2.12)
- 3. The Committee while noting the significant expansion of cement industry expresses concern over inadequate infrastructural facilities for the growth of the economy. India needs a strong infrastructural base to meet the demands of the bourgeoning population of our vast and diverse country. Since infrastructural development and demand for cement are complementary to each other, it is imperative to diversify, and make proper assessment of our requirements. Infrastructure sector should take the largest share in the cement demand. (Para 2.13)
- 4. The Committee takes a serious note of the fact that, in spite of constantly increasing capacity, the capacity utilization has been declining constantly. If we need to reach the optimum production level, capacity utilization should be maintained above 90%. The Committee desires that government should seriously address this issue. (Para 2.14)
- 5. The Committee also expresses its concern over the down slide trend of the production growth between 2005-06 and 2008-09, though it had

- achieved a record growth in 2009-10 at about 12%. The Committee, while agreeing that this is one of the major industries that has been growing at a record rate despite the economic downturn, desires that the down slide trend noticed earlier should not be allowed to recur again. (Para 2.15)
- 6. The Committee feels that research on non-limestone bearing raw material and binders, which can partially replace limestone, needs to be undertaken. National Council for Cement and Building Materials (NCCBM) expressed its helplessness in carrying out such research due to paucity of funds. The Committee recommends that the National Council for Cement and Building Materials should conduct research on finding alternatives of limestone and other construction material. Use of geopolymeric cements which require some chemical bonding instead of lime, should be encouraged. (Para 2.18)
- 7. The Committee strongly feels that the concerns expressed in regard to the fly-ash may be looked into. The Committee strongly recommends that the cement plants, which have captive power plants, may be allowed to use fully the fly-ash generated by their captive power plants. (Para 2.21)
- 8. Co-processing of industrial wastes in cement industry can conserve fossil fuel energy resource and has a potential to minimize the adverse impact of global warming, by reducing green house gases emission. The Committee, therefore, desires that co-processing of industrial wastes may be encouraged and incentives may be given to the plants using such technologies. (Para 2.23)
- 9. The Committee recommends that duties on captive power generation by cement plants add to the cost of production further escalating the prices and the State governments should consider reducing the duty on the captive power plants. The Committee also recommends that the State governments should not insist on the cement plants to pay for a minimum use of power from the grid wherever there are captive power plants. The Committee feels that the cement industries must

- explore alternate energy sources and the plants which adopt energy efficient technology, should be given incentives by the Government. (Para 2.25)
- 10. The Committee observes that Indian Cement Industry has vast untapped potential for cogeneration of power by waste heat recovery, of which, only 25% is being tapped. The Committee, therefore, recommends that Cement Industry should give emphasis on the need for optimum utilization of co-generation of power by waste heat recovery. This will not only reduce cost of production of cement but also help in reducing the green house gas (CO₂) emission. Incentives may also be considered for cement plants for co-generation of power from waste heat. (Para 2.28)
- 11. The Committee finds that though unhampered availability of good quality coal is essential for the cement industry, but the supply of coal through linkage from coal companies to the cement companies has decreased from 70% of total requirement in 2003-04 to less than 50% in 2008-09. This has forced the industry to source coal from other sources like open market, imports, use of pet coke etc. to supplement the requirement at huge cost. Other reason of this shortage is delay in signing of Fuel Supply Agreements (FSAs) between cement and coal companies. The Committee also expresses its dismay that the long term linkage committee meeting in the Ministry of Coal has not sanctioned any linkage for the last two years of the 11th Plan to new capacities. This can discourage the new investors and, in turn, can slow down the pace of infrastructure development. (Para 2.33)
- 12. The Committee recommends that the Government should take urgent steps to ensure enhanced and regular supply of coal to the cement industries. Fuel Supply Agreements (FSAs) should be signed without any further delay. In order to restore the confidence of the investors, it is imperative that 80% or more coal of total requirement should be provided through linkage. The Government may address all the issues relating to coal supply to the cement

- plants at the earliest. (Para 2.34)
- 13. The Committee while appreciating the steps taken by the Government for introducing taxation on cement on ad valorem basis, recommends that the Department should expedite introduction of abatement on excise duty. The Committee also recommends that import duty on inputs i.e. coal, pet coke and gypsum be brought at par with the import duty on the final product. State specific taxes should also be reconsidered. (Para 2.42)
- 14. The Committee observes that increasing cost of raw materials for cement is one of the reasons for increase in cement prices. Moreover, source of raw materials at selected regions of the country and making those available at other places have also caused wide variation in prices. In view of this, the Committee recommends that there should be fair tax/duty structure for the import of raw materials for cement industry and open market procurement thereof. The Government should also attach top priority to encourage application of nano-technology in the production of cement in view of the limited and finite nature of mineral resources available in the country. (Para 3.12)
- 15. The Committee recommends that in order to reduce freight charges, Ministry of Railways should address the issues like steep increase in the carrying capacity of wagons with no corresponding increase in the permissible free time allowed for loading/ unloading, erratic and inadequate supply of wagons, inadequate infrastructure facilities at terminals, frequent shifting of priorities of rakes, upward adjustments in the classification of cement, clinker and coal, etc. with urgency and seriousness. The Ministry should put in place a sound policy on wagon investment scheme without any delay, so that shortage of wagons can be addressed to cope with the future demands of the cement industry, especially at a time when the cement industry is poised for rapid expansion. The Committee also recommends that Railways should increase the share of Cement transportation as per its 2020 vision document. (Para 3.15)

- 16. The Committee is of the view that to reduce the loading and unloading time, there should be round the clock working in goods sheds. Besides, partial mechanization of loading and unloading process can be considered as viable option so that without retrenching labourers, their efficiency can be enhanced. The companies should try to complete the loading process at the shortest possible time so that demurrage charges do not add up to the cost. Similarly, Railways may consider reducing demurrage charges. (Para 3.18)
- 17. The Committee has already recommended in Para 2.25 for reducing the duties on captive power plants. The Committee further recommends that the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry may pursue the matter with State governments for reducing duties on captive power plants. (Para 3.19)
- 18. The Committee is dismayed to note that one of the reasons for price rise of cement is profit motive of the cement companies. The calculation of fair price and the average retail price, gives a fair idea about the extent of profit earned by the companies each unit per bag. The higher amount of profit per bag will only add to the burden of the consumer i.e. the common man. This will also affect the infrastructure industry. The Committee, therefore, strongly recommends that the Government should establish a statutory regulatory authority to regulate the prices of cement to curb the tendencies of market dominance, under-utilization of capacity and artificial scarcity. (Para 3.24)
- 19. The Committee recommends that Competition Commission of India which was constituted to check restrictive trade practices across the country, should be strengthened legally to enable it to take *suo motu* action in all the cases of unfair trade practices. Proper infrastructure may be developed for the Commission, so that it can obtain requisite information and can take *suo motu* action and exert its powers

- effectively. (Para 4.10)
- 20. The Committee strongly feels that already installed capacity for cement production should optimally be used to prevent artificial scarcity. The Committee, accordingly directs the Department of Industrial Policy and Promotion to take strong action against such non-performing cement industries. (Para 4.11)
- 21. The Competition Act, 2002 was passed by the Parliament to check unfair trade practices and to promote healthy competition. But, the Committee is at dismay to note that Sections 5 and 6 of Competition Act, 2002 pertaining to Combination and Regulation of Combination which are very effective to check mergers and amalgamations are yet to be notified. The Committee recommends that the Department should take immediate action to notify these Sections to check unfair trade practices. (Para 4.14)
- 22. The Committee strongly recommends that there should be a time limit for notifying all Sections of a particular Act, which has been already passed by Parliament, failing which it should be treated as violation of parliamentary privileges. In case the Government wants any further modifications in the Act already passed by Parliament, the Government should come back to the Parliament with an amendment Bill within that time limit. In the instant case, these Sections should be notified and come into effect immediately. (Para 4.15)
- 23. The Committee recommends that the Government may order an independent study on the existence of cartelization in the cement industry. The Competition Commission may also be asked to look into the matter. The Committee also recommends that the Government should take adequate penal measures so that no cartelisation takes place. (Para 4.17)
- 24. The Committee is constrained to learn that, while the European Union emission standards for large cement plants is 30 mg/Nm³ the Indian emission standards for existing large cement plants is 100 mg/Nm³ for cement plants, including grinding units, located in

critically polluted or urban areas with a population of one lakh and above and 150 mg/Nm³ for plants other than those falling under above category. The Committee is horrified to learn that for mini cement plants the standard is 400 mg/Nm³. The Committee strongly recommends that emission standards should be uniform for all plants and there should not be such huge gap between Indian emission standards and international emission standards. The Committee also impresses on Department of Industrial Policy and Promotion to direct all plants to comply with emission standards by using state-of-art technology. The Committee strongly recommends that all cement manufacturers should comply with the corporate responsibility for environment protection. (Para 5.6)

- 25. The Committee feels that development and environment should go hand in hand and Government and corporates should work together to achieve this. Cement sector should show commitment for compliance of environmental regulation on sustainable basis. The Committee recommends that the cement industry should adopt energy efficient measures for reduction of CO₂ emission. Shifting to more efficient processes like Vertical Roller Mill (VRM), high efficiency cooler etc., can also be useful. The industry should also adopt better operational control and scale of production for better environmental conservation. More use of alternative fuels, coprocessing of industrial solid wastes and waste heat recovery for natural resource conservation and developing emission standards for oxides of Nitrogen also prove to be helpful in environment conservation. (Para 5.11)
- 26. The Committee also feels that the co-processing of wastes of cement plants that have successfully been put to trial run by the Ministry of Environment and Forests need to be commercially implemented. The Committee desires that both the Ministries of Commerce and Industry and Environment and Forests may take necessary steps in this direction. Necessary guidelines may also be framed for this purpose. The cement plants, particularly the modern and the new

- ones, should start co-processing of waste oil, solvents, refuse derived fuel as suggested by the Ministry of Environment and Forests. (Para 5.12)
- 27. The Committee desires that the Government should review all the cases of non-compliance of pollution norms, from time to time. (Para 5.16)
- 28. The Committee was given to understand that if some plant is on the sea coast of the country, it has to take permission from Coastal Regulation Zone Management Authority. The Committee is, however, constrained to note that by and large, our country has not followed the zoning system. If the zoning system is followed, problems of those types would be very few. The Committee desires that the guidelines may be prepared in this regard and implemented. (Para 5.19)
- 29. The Committee recommends the Department of Industrial Policy and Promotion may take up the matter with the Ministry of Environment and Forests, so that a Committee of experts may be constituted to work out the possibility of having zoning system in the country. (Para 5.20)
- 30. The Committee, while agreeing that there is a need to increase awareness among the stake-holders not to violate norms, also feels that there is a lack of awareness among the public about the norms fixed under various notifications/Rules/Acts etc. There is, therefore, a need to give due publicity to the norms through the media and in their website. The Committee recommends that the Ministry may give due attention to this aspect as well. The Committee recommends that in order to implement the various notifications of strictly, all these notifications should be displayed prominently on the web site and other effective measures should also be adopted for making this valuable information available to the public in a consolidated manner. The Committee also recommends that there should be complete co-ordination, collaboration and cooperation between the states, local bodies and Central Government.

The Committee observes that norms/ guidelines of Central Pollution Control Board (CPCB) should be followed by all State governments without fail and the Department should pursue the matter with all State governments regarding pollution making cement industries from time to time. (Para 5.22)

- 31. The annual financial aid given by the Centre to the States should be linked to their contribution in pollution reduction. Similarly, the cement plants that employ eco-friendly technology may be given incentives and the pollution-causing plants may be heavily penalized. (Para 5.23)
- 32. The Committee notes that there is a clear advantage for cement concrete roads in respect of saving fuel consumption vis-à-vis bituminous roads. In view of the scarce fossil fuel sources, it would be desirable to have cement concrete roads wherever other factors are favourable. (Para 6.13)
- 33. The Committee is of the view that there is a vast potential for cement concrete roads in India, particularly highways. Taking into account the advantages of cement concrete roads, the Committee strongly recommends that the Government should consider constructing cement concrete roads wherever it is technically feasible. (Para 6.16)
- 34. The Committee also takes note of the fact that 40% of the roads in developed countries such as U.S.A., West Germany etc. are made of cement concrete whereas it is only 2% in India. The Committee, therefore, recommends that roads and highways should be made of cement concrete bringing at par with the international norms and standards. The goal should be to reach international level. (Para 6.17)
- 35. While formulating proposals for four-laning, expressway, new bypasses including forthcoming Build Operate Transfer (BOT) projects
 on Public Private Partnership basis, the Government should give
 long term construction-cum-maintenance contracts for constructing
 these roads. This will encourage the contractors to opt for cement
 concrete roads as the total life cycle cost of cement concrete roads,

- which includes the initial cost over the designed life and other operational cost, is approximately 25-30% less than that of bituminous pavement. (Para 6.18)
- 36. The Committee takes note of the new technology by which the use of water and the period can be reduced for curing the cement concrete. The Committee strongly recommends that this technology should be extensively used in all construction activities. (Para 6.19)
- 37. The money saved in maintenance by constructing cement concrete roads can be utilized for creating road connectivity in rural and other inaccessible areas. (Para 6.20)
- 38. The Committee observes that the provision of 50% cost sharing by State government in case of cement concrete roads and placing the responsibility of sharing maintenance cost to the respective state will only discourage the State governments from going for concrete roads under the PMGSY. Instead, the Government should make provision to encourage the states opting for concrete roads. (Para 6.28)
- 39. The Committee also observes that the condition of constructing 10% roads with concrete under Pradhan Mantri Gramin Sadak Yojana (PMGSY) is not sufficient. Cement concrete roads are labour intensive and are ideally suited for rural roads. The Committee, therefore, strongly recommends that the percentage of cement roads under the scheme PMGSY should be increased. The Committee also recommends that wherever feasible, the rural roads should be constructed with cement concrete. (Para 6.29)
- 40. The Committee recommends that cement concrete roads should be preferred in the border areas wherever road transportation, air lifting and storage of cement are favourable. The Committee hopes that the Ministry and Border Roads Organisation (BRO) would soon take up technological upgradation so that more cement roads are laid. Priority should, therefore, be given for technological upgradation. (Para 6.33)

- 41. Adopting modern technologies is very essential for cement industry. The Committee takes a serious view of the fact that the manufacturers do not adopt them due to low returns. An industry should also be concerned about the environment, the humanity and the future of the society. Accepting the suggestion of NCCBM, the Committee recommends that carbon tax may be imposed. Guidelines may be prepared in this direction. (Para 7.4)
- 42. The Committee feels that crushers, being hazardous, should not be permitted near a populated area. Technology needs to be developed to lessen the dust generation and for its collection. The Committee desires that NCCBM may work in this direction. (Para 7.6)
- 43. Committee appreciates the progress of the study on increasing quantity of fly-ash in cement being carried out by NCCBM and hopes that the study would yield the desired results. The Committee, therefore, desires that NCCBM may continue the study and transfer the technology, so developed, to the industry. (Para 7.8)
- 44. The Committee feels that NCCBM is a major research institute engaged in significant activities relating to development of cement industry. The research work, it is carrying out or proposes to carry out, is very essential for the cement industry to sustain in the long run. Lack of funds should not become an impediment for NCCBM to take up these activities. NCCBM needs adequate funds and infrastructure to carry out research on cement. The Committee, therefore, recommends that necessary funds may be provided to NCCBM for carrying out research in cement sector. (Para 7.10)
- 45. The Committee is of the view that the organisations like Indian Roads Congress (IRC) should not confine only to conduct research, but they should also advise the Government on important issues, like road conditions and make feasibility study with regard to type of road required, supporting the Government with the results of the studies conducted by IRC. The Committee also evinced interest in white topping and feels that much more is still desired to be done. The IRC and the Central Road Research Institute (CRRI) should

- conduct research and trials on this and come out with concrete results. (Para 7.15)
- 46. The Committee also desires that IRC guidelines for constructing roads should be made mandatory even for states and concessionaires in Public Private Partnership projects. For that IRC should be given a bigger role to play. (Para 7.16)
- 47. On the one hand, natural resources like coal and limestone are limited and soon these will be finished and on the other, the need for cement is ever increasing. To meet this gap, the future of cement industry lies only in nano-technology. It is heartening to learn that with the use of nano-technology, the use of cement can be reduced by 30-50 per cent. If achieved, this will be a positive development. The Committee, while appreciating the present research being done on nano-technology in construction, strongly recommends that NCCBM may conduct more research on this and transfer the technology so developed to the industry. Top engineering institutions such as IITs may also be involved in the research on nano-technology. Sufficient funds may be provided to NCCBM and other research institutes for research on nano-technology. (Para 7.20)
- 48. The Committee recommends that the Cement Wage Board should revise the wages of, cement workers, immediately and while revising it should take into consideration the wages fixed by Cement Corporation of India (CCI) for its workers and also wages prevailing in other sectors. The Cement plants should also improve the working conditions in their plants by reducing air pollution by strictly following the Ambient Air Quality Standards notified by the Ministry of Environment and Forests. The Committee also recommends that before giving permission for land acquisition for setting up cement plants, the Government should ensure that the interests of the local inhabitants are not compromised and the issue of the unemployed and displaced labour be addressed in right earnest. The Committee further recommends that the cement industry should take the social

responsibility of providing all essential facilities to the workers such as education, health, drinking-water, sanitation and insurance cover, etc. (Para 8.3)

APPENDICES

PRESS COMMUNIQUE

STANDING COMMITTEE ON COMMERCE INVITES SUGGESTIONS OF PUBLIC ON

- I. PERFORMANCE OF CEMENT INDUSTRY
- II. EXPORT PROMOTION SCHEMES

The Department Related Parliamentary Standing Committee on Commerce, headed by Shri Shanta Kumar, M.P., is examining the subjects of "Performance of Cement Industry" and "Export Promotion Schemes".

The Committee is in the process of hearing the views of different stakeholders. It has decided to receive inputs from cross-sections of stakeholders and the public at large on the subjects.

Those desirous of submitting their views and suggestions to the Committee may send their written memoranda (either in English or Hindi) on the above subjects to Shri T. N. Pandey, Joint Director, Rajya Sabha Secretariat, 222, Second Floor, Parliament House Annexe, New Delhi-110001 (Tel.: 23035429) or e-mail at tn.pandey@sansad.nic.in within thirty days from the date of publication of this Press Communique. Those desirous of being heard in person may also indicate their willingness to appear before the Committee.

The memoranda submitted to the Committee would form a part of the records of the Committee and will be treated as confidential. These are not to be disclosed to anyone, till the report of the Committee is presented to Parliament, violation of which would constitute a breach of privilege of the Committee.

NEW DELHI 4TH DECEMBER, 2009

(Vide Preface of the Report)

List of Individuals/Organisations etc. from whom Memoranda were received by the Committee

S.No. Name

- Shri R. Kamath (received through e-mail)
- 2. Shri Rooban Gopalakrishnan (received through BlackBerry on Airtel)
- 3. Shri Om Prakash Dubey VIII-Deori, P.O. Biroha, Distt. Mirzapur (U.P)
- 4. Shri Gurnoor Grewal H.No. 572, Sector-18-B, Chandigarh
- 5. Shri Pawan Kumar Gutgutia
 Hony. Secretary West Bengal Cement Manufacturing Association
 (received through e-mail)
- Shri K.K.Vidrohi
 V. Chauki, P.O.(A.B),
 Kullu, Pin-175101, H.P
- 7. Shri Vishan Singh Kaliya Distt. Nagore-341026, Rajasthan
- 8. Manager,Bokajan Tea Estate,Bokajan-782480,Distt. Karbi Anglong, Assam
- Shri K. K. Somani, Indian Mercantile Chambers, 3rd Floor, 14R, Kamani Marg, Ballard Estate, Mumbai-400001
- 10. Shri Himanshu Goel,4B, Chakrata Road, Dehradun-248001,Uttarakhand

- 11. Shri Shivendra Upadhyay, Advocate, Member, State Bar Council of Madhya Pradash Narendra Nagar, Rewa (M.P)
- 12. Shri Motilal Goyal,
 President, Vindhya Chamber of Commerce and Industries,
 Goyal Roadways, Panna Naka, Satna-485001 (M.P.)
- Shri Raj Kumar Shukla,
 M-23, Chirahula Colony, Rewa, Madhya Pradesh
- 14. Shri Susheel Kumar Tiwari, Civil Lines, Boda Road, Rewa (M.P.)
- 15. Shri Rambhan Singh, Member, Janpad Panchayat, Rampur Bagelan, Satna, (M.P)
- 16. Shri Rajaram Tripathi, Tripathi Transport Agency, J.R.Birla Marg, Satna (M.P) 485001
- 17. Shri Suneel Sharma, 10, Market Road, E-Block, DLF City, Phase – 1, Gurgaon, Haryana – 122002
- 18. Shri Mahendra Prabhakar Moon, Ra-shivani, P sakara, Kolgaon, Ta. Vani, Disst, Yavnama, Maharashtra-445307
- Shri A. L. Kapur,
 Managing Director, Ambuja Cements Limited,
 106, Maker Chambers III, Nariman Point,
 Mumbai 400021.
- Shri R. G. Bagla,
 Group Executive President,
 J.K. Cement Ltd, Administrative & Registered Office:
 Kamla Tower, Kanpur-208001 (U.P.)
- 21. Shri J. Datta Gupta, Chief Commercial Officer, ACC Limited, Registered Office: Cement House, 121, Maharshi Karve Road, Mumbai-400020

(Vide Preface of the Report)

The Committee heard the views of the following Ministries/Departments/Organisations to get detailed information on the subject:-

- 1. Shri Ajay Shankar, Secretary, Department of Industrial Policy and Promotion;
- 2. Smt. Vinita Singhania, President, Cement Manufacturers Association (CMA);
- 3. Shri D. L. Desai, Past Vice President, Builders Association of India (BAI):
- 4. Shri R. H. Khwaja, Special Secretary, Ministry of Environment and Forests and Central Pollution Control Board (CPCB);
- 5. Shri Ashwani Pahuja, Director General (Acting), National Council for Cement and Building Materials (NCCBM)
- 6. Shri Vivek Sahai, Member Traffic, Railway Board (Ministry of Railways);
- 7. Shri A. V. Sinha, DG (RD) & SS, Ministry of Road Transport and Highways;
- 8. Shri P. D. Sudhakar, Special Secretary, Ministry of Corporate Affairs and Competition Commission of India;
- 9. Shri Shekhar Agarwal, Additional Secretary, Ministry of Defence and Border Roads Development Board (BRDB);
- 10. Shri B. K. Sinha, Secretary, Ministry of Rural Development;
- 11. Shri Suman K. Bery, Director General, National Council of Applied Economic Research (NCAER);
- 12. Shri Jamini Kumar Sharma, Chairman, Tariff Commission;
- 13. Shri R. P. Indoria, Secretary General, Indian Roads Congress (IRC); and
- 14. Dr. Renu Mathur, Senior Fellow, Central Road Research Institute (CRRI).

MINUTES

*III THIRD MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.30 A.M. on Tuesday, the 27th October, 2009 in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri V. Hanumantha Rao
- 3. Dr. K. Keshava Rao
- 4. Shri Mohammed Amin
- 5. Shri Jai Prakash
- 6. Shri Prem Chand Gupta
- 7. Shri Rahul Bajaj
- 8. Shri Mohammed Adeeb

LOK SABHA

- 9. Shri K. P. Dhanapalan
- 10. Shri Shivarama Gouda
- 11. Shri Dilip Singh Judev
- 12. Shri Sakti Mohan Malik
- 13. Shri O.S. Manian
- 14. Shri Somen Mitra
- 15. Shri Deoraj Singh Patel
- 16. Shri Sanjay Dina Patil
- 17. Shri G. Sukender Reddy
- 18. Shri M. Venugopala Reddy
- 19. Shri M. I. Shanavas
- 20. Shri Yashvir Singh

SECRETARIAT

Shri Surinder Kumar Watts, Joint Secretary Shri T. N. Pandey, Joint Director Smt. Indira C. Vaidya, Assistant Director

^{*}Minutes of 1st & 2nd meetings of the Committee pertain to other matters.

2. The Committee resumed discussion, which was deferred in its meeting on 16th September, 2009, as to the subjects which could be taken up for examination by it. The Chairman proposed the following subjects for consideration:-

* *

For Department of Industrial Policy and Promotion

- i) Performance of the Cement Industry.
- ii) Training, Research and Dedwesign facilities for the industry.
- 3. After some discussion, the Committee decided to take up one subject each pertaining to

 *

 and Department of Industrial Policy and Promotion viz. Performance of Cement Industry, for examination and report.
- 4. The Chairman directed the Secretariat to procure background notes on the above-mentioned subjects from the respective Departments and circulate the same to Members of the Committee, well in advance of the next meeting.
- 6. The Committee decided to meet again on 9th and 10th November, 2009.
- 7. The Committee adjourned at 12.00 Noon.

^{***} Davidio to other subject

^{***} Pertain to other subject

IV FOURTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Monday, the 9th November, 2009 in Room No. '63', First Floor, Parliament House, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Dr. K. Keshava Rao
- 3. Shri Arun Jaitley
- 4. Shri Mohammed Amin
- 5. Shri Prem Chand Gupta
- 6. Shri Rahul Bajaj
- 7. Shri Mohammed Adeeb

LOK SABHA

- 8. Shri G. S. Basavaraj
- 9. Shri Shivarama Gouda
- 10. Shri Sakti Mohan Malik
- 11. Shri Somen Mitra
- 12. Shri Deoraj Singh Patel
- 13. Shri Jagdish Singh Rana
- 14. Shri M. Venugopala Reddy
- 15. Shri M. I. Shanavas
- 16. Shri Kalikesh Narayan Singh Deo
- 17. Shri Yashvir Singh

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA Shri Surinder Kumar Watts, Joint Secretary Shri T. N. Pandey, Joint Director Smt. Indira C. Vaidya, Assistant Director

WITNESSES

REPRESENTATIVES OF DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, MINISTRY OF COMMERCE AND INDUSTRY

Shri Ajay Shankar, Secretary Ms. Renu Sharma, Joint Secretary Shri Shashi Ranjan Kumar, Director Shri M. Vasudeva, D.G., NCCBM Shri R. Murlidhar, Under Secretary

2. The Chairman welcomed the Members and mentioned that in the last meeting of the Committee it was decided that the Committee will hear the views of Secretary, Department of Industrial Policy and Promotion on the subject of Performance of Cement Industry.

- 3. The Secretary, Department of Industrial Policy and Promotion thereafter made a presentation on the subject highlighting the issues that need attention. The Secretary mentioned that the real growth of the Cement Industry commenced during the 80's and there has been a quantum jump in capacity addition since its de-licencing in 1991. It was also pointed out that the Performance of Cement Industry in terms of energy consumption and environmental protection measures is of global standards. Some of the issues of concern are the high taxes and levies, insufficient linkage in supply of coal, the proposal of Ministry of Environment and Forests to discontinue the supply of fly ash free of cost, etc. He also mentioned that the Department has been taking various initiatives for promoting the cement concrete roads, which will give a fillip to the Cement Industry.
- 4. After the presentation, Members raised various issues relating to the Cement Industry. It was pointed out that there is cross holding among the major players in the cement industry which may lead to cartelization. In this connection, Secretary, Department of Industrial Policy and Promotion pointed out that there are ten major players in the cement industry and new players are also coming into the field. He mentioned that the question of cartelization and the need for promoting competition is an issue which has to be looked into by the recently set-up Competition Commission. He also mentioned that we should not take any action that will dampen investor sentiments since the need of the hour is fresh investment and capacity addition.
- 5. The Members pointed that there are several environmental issues mainly relating to the older plants. These plants posed health hazards to the workers, which is a major labour issue. A lot of pollution is generated in the transportation and handling of fly ash and cement. In his reply, Secretary, Department of Industrial Policy and Promotion pointed out that the modern plants which have come up in the last 15-20 years are state of the art ones and the problem is relating to some of the older plants. He mentioned that Department will undertake a special audit of the older plants from environmental point of view and will revert back after the study is over.
- 6. It was pointed out by the Members that the cement prices had almost doubled during the last decade. The price of cement affects not only Government projects but also have a direct impact on the lives of the common man. Keeping in view the volatility in the movement of cement prices and the fact that countries like Pakistan are producing and exporting cement at much lesser prices, the need for a normative costing of cement production was emphasized. In reply, Secretary, Department of Industrial Policy and Promotion agreed that an independent study will be done in the matter.

- 7. Some members also mentioned that while promoting the cement concrete roads would be advantageous from the point of infrastructure development, the large scale introduction of cement concrete roads would also push up the prices of cement which may adversely affect the common man. This can only be solved by large scale capacity addition.
- 8. On the question of taxation, Secretary, Department of Industrial Policy and Promotion clarified that since we have moved to taxation on ad-valorem basis, abatement has become a material issue. In the cement industry, the abatement issue has not yet been settled because the shift to taxation on ad-valorem basis is just about two years old.
- 9. A verbatim record of the evidence was kept.
- 10. The Committee adjourned at 12.40 p.m.

*VI SIXTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 3.00 P.M. on Tuesday, the 1st December, 2009, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri Arun Jaitley
- 3. Shri Rahul Bajaj
- 4. Shri Mohammed Adeeb

LOK SABHA

- 5. Shri K. P. Dhanapalan
- 6. Shri Shiyarama Gouda
- 7. Shri Nalin Kumar Kateel
- 8. Shri Sakti Mohan Malik
- 9. Shri Deoraj Singh Patel
- 10. Shri Sanjay Dina Patil
- 11. Shri G. Sukender Reddy
- 12. Shri M. I. Shanavas
- 13. Shri Kalikesh Narayen Singh Deo
- 14. Shri Rajaiah Siricilla
- 15. Shri Yashvir Singh

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA Shri Surinder Kumar Watts, Joint Secretary Shri T. N. Pandey, Joint Director Smt. Indira C. Vaidya, Assistant Director

2. The Committee took up for discussion its course of action for examination of the subjects of 'Performance of Cement Industry' and * * * * As, proposed by the Chairman, the Committee decided that a Press Communique, inviting views/suggestions on both the subjects from individuals/ organizations, interested in the subjects, may be issued.

^{*}Minutes of 5th meeting of the Committee pertain to other matters.

^{***} Pertain to other subject

- 3. Members suggested that initially the representatives of the following organizations may be invited before the Committee for oral evidence on the subject of 'Performance of the Cement Industry':-
- (i) Cement Manufacturers' Association;
- (ii) Builders' Association of India;
- (iii) National Council for Cement & Building Materials (NCCBM);
- (iv) Ministry of Environment and Forest/Central Pollution Control Board/ an expert agency on pollution related matters;
- (v) Ministry of Road Transport and Highways, and Ministry of Defence alongwith NHAI and Border Roads Organization (BRO) on the issue of having more Cement Concrete Roads; and
- (vi) Department of Company Affairs/ Competition Commission of India on the issue of cartelization and its effect on price of Cement;
- 4. After some discussion it was decided that the representatives of Cement Manufacturers' Association and Builders Association of India be invited before the Committee in the next meeting.
- 5. The Committee decided to meet again on 16th December, 2009.
- 6. The Committee adjourned at 3.40 p.m.

VII

SEVENTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.30 A.M. on Monday, the 11th January, 2010, in Committee Room 'B', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri V. Hanumantha Rao
- 3. Dr. K. Keshava Rao

LOK SABHA

- 4. Shri G. S. Basavaraj
- 5. Shri Shivarama Gouda
- 6. Shri Somen Mitra
- 7. Shri Deoraj Singh Patel
- 8. Shri Sanjay Dina Patil
- 9. Shri Jagdish Singh Rana
- 10. Shri G. Sukender Reddy
- 11. Shri Rajaiah Siricilla
- 12. Shri K. Sudhakaran
- 13. Shri Yashvir Singh

SPECIAL INVITEE

Shri Raj Kumar Dhoot, M.P. (Rajya Sabha)

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA

Shri Surinder Kumar Watts, Joint Secretary

Shri T. N. Pandey, Joint Director

Smt. Indira C. Vaidya, Assistant Director

REPRESENTATIVES OF CEMENT MANUFACTURERS' ASSOCIATION

Smt. Vinita Singhania, President, CMA

Shri M. A. M. R. Muthiah, Vice President, CMA

Shri Manoj Gaur, Executive Chairman & MD, Jaiprakash Associates Ltd.

Shri H M Bangur, MD, Shree Cement Ltd.

Shri Uday Khanna, CEO, Lafarge India Pvt Ltd

Shri Saurabh Misra, Director, Aditya Birla Management & Business Head-Cement Business, Grasim Indus. Ltd.

Shri T. S. Raghupathy, Executive President, the India Cements Ltd.

Shri Rahul Kumar, CFO, Jaiprakash Associates Ltd.

Shri M.K. Singhi, Executive Director, Shree Cement Ltd.

Shri S. Chouksey, Wholetime Director, JK Lakshmi Cement

Shri T. Venkatesan, CEO, Cement Business, Dalmia Cement (B) Ltd.

Shri N. A. Viswanathan, Secretary General, CMA

REPRESENTATIVES OF BUILDERS' ASSOCATION OF INDIA

Shri Anand Gupta, Hon. Gen. Secretary Shri D.L.Desai, Past Vice President Shri R.K.Jain, Vice President Shri H.S.Pasricha, Chairman-Delhi Centre Shri Raju John, Executive Secretary Shri S.S. Arora, Executive Officer

- 2. The Chairman welcomed the Members and informed them that the representatives of Cement Manufacturers' Association (CMA) and Builders' Association of India (BAI) had been invited to present their views on the subject of Performance of Cement Industry.
- 3. The President, CMA, alongwith the representatives of major Cement Manufacturing Companies, made a brief presentation on the history and the present position of Indian Cement Industry.
- 4. It was informed that after decontrol, Indian Cement Industry had been growing steadily in terms of production capacity, its utilization, use of fuel efficient technology and modernization. Inadequate availability of coal, fly-ash and rail transportation facility, alongwith heavy tax burden, were mentioned as the major problems plaguing the industry, which needed immediate attention. The industry representatives also suggested introduction of 55% abatement on MRP, with uniform excise duty, as recommended by the National Council of Applied Economic Research (NCAER). They also requested the Committee to recommend zero import duty on inputs for cement. Besides, the representatives recommended construction of Cement Concrete Roads, highlighting their relative cost-effectiveness and longevity, as compared to conventional roads.
- 5. The Chairman raised certain queries about price variation, Cement Concrete Roads and reduction in production capacity. On the issue of cartelisation, the representatives of CMA maintained that CMA does not involve itself whatsoever in any of the activities that would encourage cartelisation. They also maintained that the variation in price is the result of the dynamics of demand and supply and also due to the general rise in price of inputs/ cost of transportation.
- 6. CMA informed that measurement of capacity and production was based on different criteria, hence there was a gap between the two. Witnesses then withdrew
- 7. Thereafter, the Builders' Association of India presented their views on the subject. The representatives of BAI informed that inspite of the growth of cement production spiralling down for last four-five years, operating profit had been increasing

remarkably. The issue of a few major companies controlling the market and cartelization was also raised. Reduction of countervailing duties to zero alongwith setting up of a Cement Regulatory Authority, was suggested as a remedy by the BAI. One member also recommended a scientific analysis of price variation in the industry.

- 8. Members sought some clarifications, which were replied to by the witnesses. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.
- 9. A verbatim record of the proceedings was kept.
- 10. The Committee adjourned at 2.20 p.m.

*XXI TWENTY FIRST MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Tuesday, the 25th May, 2010, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri V. Hanumantha Rao
- 3. Dr. K. Keshava Rao
- 4. Shri Mohammed Adeeb
- 5. Shri K. N. Balagopal

LOK SABHA

- 6. Shri G. S. Basavarai
- 7. Shri Shivarama Gouda
- 8. Sk. Saidul Haque
- 9. Shri O. S. Manian
- 10. Shri Deoraj Singh Patel
- 11. Shri Sanjay Dina Patil
- 12. Shri G. Sukender Reddy
- 13. Shri M. I. Shanavas
- 14. Shri Rajajah Siricilla
- 15. Shri K. Sudhakaran

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA

Shri Surinder Kumar Watts, Joint Secretary

Smt Subhashree Panigrahi, Joint Director

Smt. Indira Chaturvedi Vaidya, Assistant Director

WITNESSES

REPRESENTATIVES OF MINISTRY OF ENVIRONMENT AND FORESTS (E&F) AND CENTRAL POLLUTION CONTROL BOARD (CPCB)

Shri R. H. Khwaja, Special Secretary

Shri R. N. Jindal, Scientist 'E'

Shri P. K. Gupta, Sr. Environmental Engineer (CPCB)

Dr. Sanjeev Paliwal, Scientist "C"

Shri Suneel Dave, Sr. Environmental Engineer (CPCB)

^{*}Minutes of 8th to 20th meetings of the Committee pertain to other matters.

REPRESENTATIVES OF NATIONAL COUNCIL OF CEMENT AND BUILDING MATERIALS

Shri Ashwani Pahuja, Director General (Actg.) -NCCBM Dr. M. Imran, Joint Director Dr. M. M. Ali, Joint Director Shri V.V. Arora, General Manager

REPRESENTATIVES OF RAILWAY BOARD, MINISTRY OF RAILWAYS

Mrs. Sowmya Raghavan, Financial Commissioner, Railways & Ex. officio Secretary to the Govt. of India.

Shri Vivek Sahai, Member Traffic, Railway Board & Ex. officio Secretary to the Government of India.

Shri Braj Mohan, Additional Member (Commercial)

Shri S. K. Das, EDTT (F)

Shri Naresh Salecha, EDF (C)

Shri Rinkesh Roy, DTT (M)

Shri Ramesh Tigga, EDG (BC)-II

Shri A. S. Bhatnagar, DD/RCC

- 2. The Chairman welcomed Shri K. N. Balagopal, M.P., nominated recently to the Committee. He, then, informed the members that the representatives of Ministry of Environment and Forests, alongwith the representatives of the Central Pollution Control Board; National Council for Cement and Building Materials; and the Railway Board, Ministry of Railways, had been invited to present their views on the subject Performance of Cement Industry.
- 3. The representatives of Ministry of Environment and Forests gave a brief introduction on Indian Cement Industry. They dealt upon the issues relating to pollution being caused by the Cement Industry. They informed that Cement Industry mainly causes air pollution as dust, oxides of Nitrogen (NO) & Carbon Dioxide (CO₂), are major air pollutants emitted during different stages of cement production, viz. mining, transportation of material, cement manufacturing process, etc. Out of 151 plants, 144 plants were complying with the emission standards. Substitution of clinker by using fly ash and blast furnace slag resulted in reduced emission of pollutants per ton of cement production. Effective pollution control initiatives had been taken. They also emphasized the need for promoting co-processing of industrial waste in Cement Industry to obtain various environmental benefits.
- 4. Members were of the view that in order to check pollution and to implement pollution control initiatives properly, there should be proper coordination between the Central Pollution Control Board and State Pollution Control Boards. The State Pollution Control Boards needed to be strengthened.

- 5. The representatives of the National Council for Cement and Building Materials gave a brief introduction on the Indian Cement Industry and a brief account of the functions and achievements of NCCBM. NCCBM was an Apex Body devoted to research, technology development and transfer, education and industrial services to cement, concrete construction of roads, etc. The new initiatives being taken up by them included developing alternate cements based on raw materials, other than the, limestone and application of nano technology in cement and concrete.
- 6. They also gave an overview of the advantages of concrete roads, vis-à-vis bitumen roads. According to them, concrete roads were almost maintenance free and fuel saving. They informed that construction of cement concrete roads would lead to 15% savings in energy consumption. These roads have a life of 30 to 40 years compared to 5 to 7 years for bituminous roads. The Chairman asked them to send a detailed note on the comparative study on cement concrete roads and conventional roads. Some members indicated that there is a need for more study and research on building materials. The representatives of NCCBM informed that they would be willing to take up more research projects provided adequate funds are made available to the Council.
- 7. The representatives of Railway Board gave information about the current status of the supply of coal to the cement industry. The Chairman enquired whether there was any proposal before the Railways to introduce private partnership in the development of railway sidings. They responded by stating that the policy for private participation in Railway sidings was under finalization.
- 8. The Members raised queries about non-availability of wagons, demurrage charges, and high transportation cost for cement industry. The issue of excess time taken in loading and unloading of wagons was discussed in detail.
- 9. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.
- 10. A verbatim record of the proceedings of the meeting was kept.
- 11. The Committee adjourned at 1.55 p.m.

XXII TWENTY SECOND MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Wednesday, the 26th May, 2010, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Dr. K. Keshava Rao
- 3. Shri Mohammed Adeeb
- 4. Shri K. N. Balagopal

LOK SABHA

- 5. Shri K. P. Dhanapalan
- 6. Shri Shivarama Gouda
- 7. Sk. Saidul Haque
- 8. Shri O. S. Manian
- 9. Shri Deoraj Singh Patel
- 10. Shri Rajaiah Siricilla
- 11. Shri Yashvir Singh

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA Shri Surinder Kumar Watts, Joint Secretary Smt Subhashree Panigrahi, Joint Director Smt. Indira Chaturvedi Vaidya, Assistant Director

WITNESSES

REPRESENTATIVES OF THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

Shri A. V. Sinha, DG (RD) & SS

REPRESENTATIVES OF DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, MINISTRY OF COMMERCE AND INDUSTRY

Shri Talleen Kumar, Joint Secretary Shri Shyamal Misra, Deputy Secretary Shri Ashwani Pahuja, Director General, NCCBM

REPRESENTATIVES OF MINISTRY OF CORPORATE AFFAIRS

Shri P. D. Sudhakar, Special Secretary Smt. Bina Rani Vij, Deputy Secretary

REPRESENTATIVES OF COMPETITION COMMISSION OF INDIA

Mr. Dhanendra Kumar, Chairperson

Dr. Geeta Gauri, Member

Mr. S.L. Bunker, Secretary

Mr. Parveen Kumar Purwar, Advisor (Eco)

Mr. Ashish Desh Raj, Assistant Director

Mr. Hariprasad C. G. Expert-II (Eco)

- 2. The representative of Road Transport and Highways threw light on the comparatives advantages and disadvantages of the Conventional Bitumen Roads and the Cement Concrete Roads. He informed that the difficulty in the repair of cement concrete roads, short supply of cement, requirement of sophisticated equipments and the need for traffic-diversion and noise pollution are the major roadblocks in the 100% replacement of conventional roads by cement concrete roads.
- 3. The Chairman desired to know about the actual difference in the maintenance cost and the cost of construction of cement concrete roads and bituminous roads. Some members enquired about the availability of resources required for cement concrete roads.
- 4. It was stated by the witness that cement concrete roads can be built in any type of climate. Requirement of natural resources for cement concrete roads does not exceed the requirement of resources for bituminous roads.
- 5. The Chairman directed the representative to conduct a detailed study regarding the advantages and disadvantages of cement concrete roads in terms of the cost of construction, maintenance cost, fuel savings, as compared to the bituminous roads and give a report.
- 6. The representatives of Ministry of Corporate Affairs and the Competition Commission of India presented their views on the alleged cartelisation in the cement industry. The representative of the Ministry of Corporate Affairs gave a brief account of different provisions under the Competition Act, 2002, to control cartelisation, abuse of dominance, mergers, etc.
- 7. The Chairman, Competition Commission informed that so far 38 cases under the Act had been filed with the Competition Commission, while 50 cases had transferred from the former MRTP Commission, but no formal complaint about cartelisation in Cement Industry and cross holding of shares had been received. He also mentioned that material had been collected with regard to Cement Industry and a detailed study had been assigned to some institutes. Some of the earlier studies revealed the trend of increasing mergers in the Cement Industry, from the year 2004-05.

- 8. The Chairman and many members expressed displeasure at the fact that Sections 5 and 6 of the Competition Act, 2002 related to mergers and amalgamation had still not been notified. The Chairman directed the representative of the Ministry of Corporate Affairs to furnish detailed reply in this regard. One member desired that a comparative study of the number of cases filed under MRTP Act and Competition Commission during the last 2-3 years be done.
- 9. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.

10. * *

- 11. A verbatim record of the proceedings of the meeting was kept.
- 12. The Committee adjourned at 1.18 p.m.

^{***} Pertain to other subject

XXIII TWENTY THIRD MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Monday, the 7th June, 2010, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri Prem Chand Gupta
- 3. Shri K. N. Balagopal

LOK SABHA

- Shri G. S. Basavaraj 4.
- 5. Shri K. P. Dhanapalan
- 6. Shri Shivarama Gouda
- Shri Nalin Kumar Kateel 7.
- Prof Sk. Saidul Haque 8.
- Shri Deoraj Singh Patel 9.
- 10. Shri Sanjay Dina Patil
- Shri Jagdish Singh Rana 11.
- Shri G. Sukender Reddy 12.
- 13. Shri Kalikesh Narayan Singh Deo
- 14. Shri Yashvir Singh

SECRETARIAT

Shri Surinder Kumar Watts, Joint Secretary Dr. (Smt) Subhashree Panigrahi, Joint Director Smt. Indira Chaturvedi Vaidya, Assistant Director

WITNESSES

REPRESENTATIVES OF MINISTRY OF DEFENCE

Shri Shekhar Agarwal, Additional Secretary Dr. Subhash Sharma Secretary (BRDB) Shri C. N. Ganjoo, Director (BRDB) Lt. Gen M. C. Badhani, DGBR Brig J. K. Narang, DDG (TP), BRO

Brig R. S. Kochhar, DDG (TA), BRO

Shri S. D. Paul, DS (Parl)

REPRESENTATIVES OF MINISTRY OF RURAL DEVELOPMENT

Shri B. K. Sinha, Secretary Dr. Arvind Mayaram, AS & FA Dr. P. K. Anand, Joint Secretary Shri Sanjay Kumar Rakesh, Director Dr. B. P. Chandrasekhar, Director

- 2. The representatives of the Ministry of Defence and the Border Roads Development Board, while deposing before the Committee, stated that they were facing many problems in the construction of cement concrete roads in the border areas of the country. Most of the problems were on account of landslides; greater heights; carrying of heavy machineries and equipments at greater heights, etc. The Indian Air Force (IAF), due to being too busy in other operations, was not in a position to provide services, to its full capacity, so as to carry various types of materials and machineries required for construction of cement concrete roads in hilly and inaccessible areas. The Director General of Border Roads informed that the initial cost of construction of cement concrete roads was on a higher side. Such roads required a curing time of 25-28 days in the border areas, which implied stoppage of traffic till that time. Another obstruction in this regard was that the Department was not in a position to store cement for longer durations, particularly in the rainfall areas of the North East India. The Department had to spend 2-3 months in clearing the snow in many hilly areas. After snow clearance cement concrete roads remain sturdy whereas the bituminous roads mostly get destroyed and require relaying. However, in comparison to bituminous roads, the cement concrete roads lead to more wear and tear of tyres of the vehicles. The other problems faced in this regard were the clearances from the environment agencies, besides the technical and logistic problems.
- 3. Some members enquired about the total amount of cement required by the Border Roads Development Board. The DGBR informed that last year they made use of 10080,000 metric tons (1 crore 80 thousand mt.) of cement, which was 20% less than the actual requirement. The Committee directed the witnesses to make a comprehensive study on the aspects of life cycle cost, fuel saving and vehicular wear and tear, in respect of both the bituminous roads and the cement concrete roads.
- 4. The representatives of the Ministry of Rural Development, through their Power Point presentation, highlighted various advantages and disadvantages of the cement concrete roads. They also narrated their limitations in respect of construction of cement concrete roads under the Prime Minister Gram Sadak Yojna (PMGSY). The main problem faced by them was the quality control of these roads in the rural areas, for which they followed the guidelines / advice of the Indian Road Congress (IRC) and the Cement Manufacturers' Association (CMA). The Secretary, Ministry of Rural Development also stated that cement logistically was a problematic issue because of its short shelf life and storage problems. He apprised the Committee about the techniques being used in the construction of cement concrete roads, as well as the problems in cost

sharing of roads between the Centre and the States. It was also pointed out that cement concrete roads caused more noise than the bituminous roads.

- 5. The Chairman and Members raised various queries about the durability and the cost of construction of cement concrete roads, in comparison to bituminous roads, availability of cement, cartelisation in the cement industry, advantages of such roads, etc., which were replied to by the witnesses. The Secretary, Ministry of Rural Development agreed to make a detailed examination of various issues pertaining to construction of cement concrete roads and send the same to the Committee.
- 6. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.
- 7. A verbatim record of the proceedings of the meeting was kept.
- 8. The Committee adjourned at 1.05 p.m.

*XXV TWENTY FIFTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Monday, the 21st June, 2010, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Shri V. Hanumantha Rao
- 3. Shri Prem Chand Gupta
- 4. Shri K. N. Balagopal

LOK SABHA

- 5. Shri G. S. Basavaraj
- 6. Shri K. P. Dhanapalan
- 7. Prof. Sk. Saidul Haque
- 8. Shri Deoraj Singh Patel
- 9. Shri Sanjay Dina Patil
- 10. Shri M. Venugopala Reddy
- 11. Shri M. I. Shanavas
- 12. Shri Balkrishna K. Shukla
- 13. Shri K. Sudhakaran
- 14. Shri Yashvir Singh

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA Shri Surinder Kumar Watts, Joint Secretary

WITNESSES

REPRESENTATIVES OF NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH (NCAER)

Shri Suman K. Bery, Director General Dr. Kanhaiya Singh, Senior Fellow

REPRESENTATIVES OF TARIFF COMMISSION, MINISTRY OF COMMERCE AND INDUSTRY

Shri Jamini Kumar Sharma, Chairman Shri K. Vijay Kumar, Chief Adviser (Cost) Shri Mahendra Kumar, Secretary

^{*}Minutes of 24th meeting of the Committee pertain to other matters.

- 2. The representatives of the National Council of Applied Economic Research (NCAER), while deposing before the Committee, stated that they did undertake a study on various aspects of cement in the year 2005. They gave their views on international scenario of concrete and bitumen roads, etc. With regard to variation in prices of cement in India (Rs. 260/- per sack appx.), as compared to China and Pakistan, whose cement was available at Rs. 140/- and Rs. 170-180/- per sack respectively, the representatives of NCAER stated that in India, the high prices of cement per sack were due to various types of taxes, including the excise duty, and the cost of transportation as most of the cement manufacturing industries were located near raw material source. In comparison to this, the basic reasons for low prices of cement in countries like China, Hongkong, Bhutan, Bangladesh, Indonesia, Singapore and Vietnam, etc. was because there were no excise duties on cement in those countries. On the matter of cartelisation; the cost of production; and pricing of cement, they, however, informed the Committee that they did not undertake any analysis or study of these issues in their above stated Report.
- 3. The Chairman, Tariff Commission during his submissions before the Committee stated that the main reason for high prices and variation of prices in different parts of the country was the various types of taxes levied by the respective State Governments and the fuel charges, as the cement manufacturing plants were located near raw material source. The Tariff Commission did not undertake any study on various aspects of cement production, particularly, the issues of cartelisation; cost of production; pricing of cement, etc. The Committee directed the Tariff Commission to carry out a detailed study on the above-mentioned issues relating to the cement and submit report thereon within two months.
- 4. The Chairman and Members raised various queries including cartelisation in the cement industry, cost of production, and pricing of cement. Some of the queries were replied to by the witnesses.
- 5. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.
- 6. A verbatim record of the proceedings of the meeting was kept.
- 7. The Committee adjourned at 12.45 p.m.

XXVI TWENTY SIXTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.00 A.M. on Monday, the 22nd June, 2010, in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Dr. K. Keshava Rao
- 3. Shri Jai Prakash
- 4. Shri Prem Chand Gupta
- 5. Shri Mohammed Adeeb
- 6. Shri K. N. Balagopal

LOK SABHA

- 7. Shri G. S. Basavaraj
- 8. Shri K. P. Dhanapalan
- 9. Shri O.S. Manian
- 10. Shri Somen Mitra
- 11. Shri Deoraj Singh Patel
- 12. Shri Sanjay Dina Patil
- 13. Shri G. Sukendra Reddy
- 14. Shri M. Venugopala Reddy
- 15. Shri M. I. Shanavas
- 16. Shri Rajaiah Siricilla

SECRETARIAT

Shri P. Gopalakrishnan, Additional Secretary & FA Shri Surinder Kumar Watts, Joint Secretary Smt. Indira Chaturvedi Vaidya, Assistant Director

WITNESSES

REPRESENTATIVES OF INDIAN ROAD CONGRESS (IRC)

Shri R.P. Indoria, Secretary General Shri S.B. Basu, Director (Technical)

REPRESENTATIVES OF CENTRAL ROAD RESEARCH INSTITUTE (CRRI)

Dr. Renu Mathur, Sr. Fellow, Shri J.B. Sengupta, Sr. Fellow Dr. Rakesh Kumar, Sr. Fellow Shri Binod Kumar, Sr. Fellow

2. Secretary General, Indian Road Congress, giving an overview of the Organisation, submitted that main function of IRC was to bring out Manuals, Codes of Practice, Guidelines & Specifications, etc., in respect of road and bridge works and

dissemination of knowledge amongst highway professionals. Regarding the advantages and disadvantages of the two types of roads, i.e., the flexible pavement (bituminous roads) and rigid pavement (cement concrete roads), he informed the Committee that rigid pavements had more advantages than the flexible pavement in terms of longevity and cost of construction. He, however, stated that the initial cost of construction of rigid pavements (cement concrete roads) was higher by 30-40%, than that of the flexible pavements. Besides, the rigid pavements required very meticulous designing and planning, sophisticated machinery and high level of skills, which otherwise required very low cost of maintenance. These roads were capable of withstanding not only the floods and rains, but also extra vehicular burden. The cement concrete roads, though environment-friendly had, however, the drawback of noise due to vehicular movement. Regarding life cycle cost analysis, the concrete roads proved to be cheaper than the bituminous roads. The maintenance of concrete roads was also very complex and technically intensive, compared to maintaining the bituminous roads. The Indian Road Congress had formulated various norms and guidelines for construction of various types of roads in the country, which were generally followed by various agencies across the country.

- 3. The representatives of IRC further stated that bituminous roads were prone to damage very early in case such roads are exposed to water frequently or for longer durations. The lack of funds and resources were the major hurdles in the construction of cement concrete roads.
- 4. Representatives of Central Road Research Institute (CRRI), on the matter of construction of cement concrete and bituminous roads, informed the Committee that the bituminous roads, which required low cost of construction, were very much exposed to cracks and pot holes during rainy seasons and also due to water logging. Besides, these roads also led to chipping due to oxidation and were not a good option in terms of longevity and low cost of maintenance, as compared to cement concrete roads, which initially involved a bit higher cost of construction, but lasted for more than 40 years. The representatives informed that the lack of funds and resources were the major problems in the construction of cement concrete roads. Briefing the Committee about various positive aspects of the cement concrete roads, the representatives of the CRRI recommended that the option to construct cement concrete roads was more economical, than the bituminous roads.
- 5. The Chairman and Members raised various queries regarding the cost of construction and maintenance of cement concrete roads, vis-à-vis, bituminous roads, which were replied to by the witnesses.

- 6. The Chairman directed the witnesses to send their written replies in response to the queries, for which information was not readily available.
- 7. The Committee then reviewed the progress of the subjects of 'Performance of Cement Industry' and * * * which it had taken up for examination. The members were of the view that the Committee may undertake on the spot study visits and interact with different stakeholders to have first hand information on the subjects. It, accordingly, decided to visit Andhra Pradesh, Tamil Nadu and Kerala in the month of July, 2010. The Committee authorised the Chairman to finalise the details of the visit and to approach Hon'ble Chairman, Rajya Sabha for permission for the study visit.
- 8. A verbatim record of the proceedings of the meeting was kept.
- 9. The Committee adjourned at 12.45 p.m.

^{***} Pertain to other subject

*VIII

EIGHTH MEETING

The Department Related Parliamentary Standing Committee on Commerce met at 11.30 A.M. on Wednesday, the 29th December, 2010 in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Shri Shanta Kumar — Chairman

RAJYA SABHA

- 2. Dr. E. M. Sudarsana Natchiappan
- 3. Shri K.N. Balagopal
- 4. Shri Ishwarlal Shankarlal Jain

LOK SABHA

- 5. Shri G.S. Basavaraj
- 6. Shri K. P. Dhanapalan
- 7. Shri SK. Saidul Haque
- 8. Shri Dilip Singh Judev
- 9. Shri O.S. Manian
- 10. Shri Deoraj Singh Patel
- 11. Shri Sanjay Dina Patil
- 12. Shri Yashvir Singh
- 13. Shri Rajaiah Siricilla
- 14. Shri K. Sudhakaran

SECRETARIAT

- Shri P. Gopalakrishnan, Additional Secretary & Financial Advisor
- Shri P. P. K. Ramacharyulu, Director
- Dr. (Smt.) Subhashree Panigrahi, Joint Director
- Smt. Indira Chaturvedi Vaidya, Assistant Director
- 2. The Committee took up for consideration the draft Report on Performance of Cement Industry. After detailed discussion the Committee adopted the said Report with some modifications and authorized the Chairman to effect necessary changes and corrections therein. The Committee also authorized the Chairman to cause presentation/laying the Report in the both the Houses during budget session.
- 3. The Committee then adjourned at 12.30 p.m.

^{*}Minutes of 1st to 7th meetings of the Committee pertain to other matters.