

D. Fourth Meeting of the NMCC held on 13th January 2006.

Dr. V. Krishnamurthy, Chairman, NMCC extended a warm welcome to participants and mentioned that the agenda document circulated to the members mainly comprises of four items viz. an account of what the NMCC secretariat has done since the last meeting, outline details of the 'Manufacturing Competitiveness Programme' formulated subsequent to the pronouncement made in the Union Budget 2005 speech, finalized draft of 'The National Strategy for Manufacturing' and the long term programme for the NMCC.

Chairman, NMCC mentioned that based on the suggestions received from the members of the NMCC, media, general public, persons of eminence, various Government Department and State Governments, the paper on 'National Strategy for Manufacturing' was finalized. It also took into account the suggestions made by the Planning Commission as well as Economic Advisory Council (EAC) to the PM. He stated that the meeting with the Knowledge Commission would also be held in due course of time. In case of the Manufacturing Competitiveness Programme even though the emphasis was meant to be on SMEs, the programme as developed covers the entire industry. He sought the clearance of the council so that the same could be taken up with finance ministry for adoption and further action.

On the subject of way forward, the Chairman recalled that the council has been working for close to a year now and during this period all generic problems which affect the competitiveness of the industry were studied. Further, 12 individual sub-sectors have also been studied as the problems related to each industry are different. He mentioned that if the Government's intention is to realize a GDP growth of 8% plus, it is possible to back up such a growth only with the manufacturing growth rate in the region of 12-14%. It is a feasible target which can be achieved provided certain enabling factors are put in place and various identified programmes are managed appropriately.

Chairman, NMCC pointed out that the focus of the NMCC now should be on ensuring that various recommendations are implemented and this is adequately reflected in the agenda item no.4. He sought the opinion and advice of the council members on this particular agenda. He brought to the attention of the council that the Prime Minister has been informed about the finalisation of 'The National Strategy for Manufacturing' and the intention of the council to make a brief presentation on recommended action programmes. He felt that further course of action by the NMCC should also be discussed with the PM in the context of getting the economy growth rate moving at 8% plus. He recalled that in the recent past the

government's acceptance that manufacturing is an essential ingredient for future growth is reflected in various statements made by the Prime Minister, Finance Minister and Deputy Chairman, Planning Commission. The media has also become conscious of the fact that the manufacturing sector is on the move. He then invited Mr. V Govindarajan to initiate discussions on the main agenda.

Mr. V Govindarajan, Member Secretary NMCC, informed the Council about the broad contours of the presentation that was proposed to be made to the Hon'ble Prime Minister. He brought out that given the government's intent to pursue a sustained GDP growth rate of 8% plus in future, a robust growth in manufacturing becomes essential coupled with employment generation. In the past two decades the manufacturing growth has stagnated and a 12% plus growth rate could result in the contribution of manufacturing to GDP going up to around 23% by 2015, which is also dependent upon the relative growth rates of the other sectors. He emphasized that with the economy rapidly integrating with the world, the issue of improving the competitiveness has to be the corner stone of the strategy. In the context of international competitiveness, he brought out that among the BRIC countries, while India has jumped 5 steps in the Global Competitiveness Index, countries like China have slipped.

He mentioned that the Strategy paper has looked at the issue of competitiveness at two broad levels, viz. national level and the firm level and has come out with recommendations on issues affecting the competitiveness which need to be addressed. He brought out that the approach being followed for competitiveness does not seek protection or subsidies. He cited the work done jointly with various ministries as well as the members of the NMCC over the last one year in finalizing the National Strategy for Manufacturing. He said the secretariat had also looked at certain generic issues like HRD, Skill building & education and identified action plans for the future. Steps to engage various States have been taken and in this context it was felt that the main National level strategy paper needs to be ready in the first instance.

He felt that Centre, the State and the Industry have a joint role in enhancing the manufacturing competitiveness and brought out various challenges that need to be addressed. Suggestions especially in the context of infrastructure (Ports, Roads, Power etc.) were highlighted including enhancing connectivity of hinterland (manufacturing centres) with the ports through high speed corridors (rail and road). It was stated that in the context of skill building and education manufacturing does not appear to be attractive for graduate engineers. Hence, at the factory level there appears to be a dominant role for Polytechnics. This calls for taking steps to improve the quality of teaching at Polytechnics as well as driving investments in Polytechnics.

The Fourth Council meeting discussed the following Agenda items.

The first agenda item: The NMCC's Status Report- Progress since the third meeting of the Council. The following are the highlights of the agenda item:

The first meeting of the NMCC was held on the 6th January, 2005 followed by an interaction of the Council with the Hon'ble Prime Minister on the same day. The second meeting of the council was held on the 15th April, 2005 wherein a background paper drawn up within the overall agreed approach of formulating a Strategy paper was discussed and engaging Sub-sectors for identification of issues was endorsed. The third meeting of the Council which was held on the 12th August, 2005 took up for detailed discussion the draft "National Strategy for Manufacturing'. The Government has been giving high priority for the growth of Manufacturing sector, during the 78th Annual General Meeting of the FICCI on 24th December, 2005 the Hon'ble Prime Minister extensively spoke on the importance of Manufacturing for the growth of the economy and employment.

The Strategy Paper

As suggested in the third meeting, the Strategy Paper was hosted on the web for seeking views, comments and opinions from general public. Further, comments were also formally sought from Secretaries heading various Ministries/ departments in the government as also from Chief Ministers of various States. On the 26th September, 2005 the draft Strategy paper was presented at a conference of Editors from various national, international papers and magazines so as to seek their advice on the report content. Further, presentations on the report were also made to the Dy. Chairman and Members of the Planning Commission on the 27th October 2005 as well as to the Economic Advisory Council to the PM on the 24th November 2005 to seek their suggestions on the draft Strategy paper. The Deputy Chairman, Planning Commission agreed with the NMCC's views that manufacturing should find a prominent place in the growth strategy of the country. He mentioned that in the Approach Paper being prepared for the 11th Plan this would be suitably reflected. The importance of manufacturing sector for the overall growth of the economy was also endorsed by the Economic Advisory Council to the Prime Minister.

A number of suggestions have been received by the NMCC flowing from the above interactions as well as from a wide cross section of people in the country in response to the web hosted draft national strategy paper. Taking into cognizance these comments and the suggestions received from some of the members of the council, the national Strategy paper has been recast and is put up as Agenda item 3 for Council's consideration.

The Sub-sectors

Subsequent to the third meeting of the council, the following sub-sector engagements in terms of fresh meetings as well as review meetings took place:

Sl.No	Sub-sector	Meeting	Date
1	Leather & Leather Goods and Paper	Review	17.08.05
2	Capital Goods and Auto Components	Review	31.08.05
3	Telecom Equipment	Sub-sector	14.09.05
4	Handicrafts	Sub-sector	15.09.05
5	Chemicals & Petrochemicals and Drugs & Pharmaceuticals	Review	19.09.05
6	Ports	Sub-sector	20.09.05
7	Power Sector	Sub-sector	21.09.05
8	IT Hardware	Review	29.09.05
9	Capital Goods	Review	17.11.05
10	Leather & Leather goods	Review	18.11.05
11	Textiles & Garments	Review	18.11.05

With the above, a total of thirteen sub-sector interventions have taken place in addition to meetings to discuss generic issues of Funding SMEs, Manufacturing Competitiveness programme related to SMEs, Human Resource Development and Labour. In order to take stock of the progress made on various issues & programmes discussed during the sub-sector interventions, eight reviews meeting with concerned departmental Secretaries of various sub-sectors have been held to date. Minutes of all these meetings have already been circulated to the members.

In terms of physical progress some sub-sectors being reviewed by the NMCC have shown considerable growth. For example, in the Textiles & Garments sub-sector it has been reported that the export share of India has increased 'Substantial investments are also seen in India in textile clusters and parks' Public private partnership mode is being adopted through ILFS to set up production facilities quickly with a view to exploit the opportunity created by the phasing out of the Multifibre Agreement of the WTO in 2005. In the IT Hardware sector an action plan has been prepared which seeks to correct the imbalance in the IT growth and would encourage the hardware sector also commensurately. Similarly, in the capital goods sector progress has been reported in terms of preparing comprehensive action plan for the growth of the capital goods sector which is a strategic sector and needs to be concentrated upon. In case of the telecommunication hardware sector an action plan has been prepared for ensuring growth of Indian manufacturing and taking advantage of the

spectacular growth of the telecommunication sector in the country. Also, a strategic action plan for the development of the Indian leather sector has been prepared.

It is planned to hold further meetings covering following sub-sectors and generic issues in the coming months:

Sl.No	Manufacturing sub-sectors	Sl.No	Generic Issues
1	Biotechnology	1	Competitiveness of PSEs
2	Cement	2	Infrastructure
3	Gems & Jewellery	3	Innovation Policy
4	Fertilizers	4	Labour Issues
5	Minerals/ Metals	5	Off set Policy and related issues & Technology transfer issues
6	Steel	6	Tax Issues
		7	University/ Industry co-ordination/ collaboration

The 1st agenda item also included the address by Hon'ble Prime Minister at 78th AGM of FICCI. The highlight of the portions on manufacturing is given below:

- “Inadequate growth in manufacturing has had its adverse impact on employment generation. The current mismatch between distribution of workforce and value added in agriculture is one of the main reasons for large number of poor. This needs urgent correction. Manufacturing has to be the sponge which absorbs people who need to move out of agriculture in pursuit of higher incomes. I do not accept the proposition that India can skip the manufacturing stage of development and go from being an agrarian society directly to becoming a services and knowledge based society. This is a mistaken view. A substantial manufacturing base is essential to absorb the workforce and ensure sustainable growth of the economy”.
- “Opportunities are knocking at our doors and it is for industry to exploit these. We can be a player in the world league in agro-processing, in textiles and garments, in automobile and auto-component, in pharmaceuticals in chemical and petrochemical and in leather and footwear”.
- “An experienced workforce, a large pool of scientists, engineers and managers, a reasonable endowment of natural resources and a large domestic market give us a headstart over others in manufacturing. Estimates of revealed comparative advantage show that India’s

manufacturing exports across this entire range are globally competitive. We need to build on this base and expand our competitiveness further”.

- “Our Government’s commitment to the growth of the manufacturing sector was demonstrated when we set up the national manufacturing competitiveness Council. I am happy that the Council has come forward with a draft National Strategy that has been discussed by FICCI, among other stakeholders. The concerned Ministries and Departments have been advised to follow up on these recommendations. I hope the National Competitiveness Programme announced by our Government, to support small and medium enterprises in particular, will enable this. The national manufacturing competitiveness council, along with the Ministry for Industries, is in the process of finalizing the scheme in consultation with stakeholders. This scheme, once put in operation, could help in improving the competitiveness of Indian firms”.

National Manufacturing Competitiveness Programme

8. Members are aware that the Government had announced in the Budget formulation of a National Manufacturing Competitiveness Programme. The NMCC along with the Ministry of Small Scale Industries has prepared a draft programme which has been discussed with Ms. Uma Reddy and Dr. Surinder Kapur, members of the Council. A copy of the draft scheme is listed as agenda item No. 2 for discussion by the Council.

Paper On Advanced Technology Exports To The U.S.

9. A report of the U.S. Trade, Economic and Security Commission, “ US-China Advanced Technology Products Trade”, which gives detailed information on the Advanced Technology Imports (ATPs) by U.S. was placed with the purpose of to highlight the vast scope for export of Advanced Technology Products to the U.S. from India. Suggestions and comments of the members in this regard are requested. It is assumed that a measure of a nation’s effectiveness in advancing its economy into such industries is its trade in advanced technology products.. The major findings and recommendation of the paper are as follows:

Major Findings

- China is a major producer of advanced technology products, shipping \$45 billion of such goods to the United States in 2004- nineteen percent of all U.S. ARP imports

- China is a major U.S. supplier of Opto-electronics, information and communication equipment, and electronics.
- China and ten of the nations surrounding it (the China Sphere) now supply 59 percent of all ATP products imported into the U.S.
- The China Sphere supplies the United States with 18 percent of all imported ATP Life Science Products, 60 percent of Opto-electronics, 77 percent of information and equipment ATP, 52 percent of electronics ATP, 53 percent of flexible manufacturing ATP, and 67 percent of advanced materials ATP.
- The U.S. ran a \$60 billion ATP trade deficit with the China Sphere in 2004.
- The U.S. imported \$ 140 billion of Advanced Technology Products from the China Sphere in 2004, which is 270 percent more than it imported from the European Union.

Recommendations

- ✓ The United States' economy is so large and powerful and its scientific and technological leadership has long been so overwhelming that the nation could ignore potential technology based flaws, traps and dangers. But that era is quickly ending. Much as before World War II, the United States faces a future of real technological and manufacturing competition.
- ✓ Fortunately, unlike in the past, the United States has a strong information and data collection capacity in place. It needs to be mobilized to prepare some basic information for U.S. policymakers.
- ✓ Thus, we recommend that this Commission contract with the U.S. Department of Commerce to prepare a series of special data tabulations on the U.S. ATP trade with the world. The Department has the capacity to provide detailed calculations on the nation-by-nation trade of the 500 items it defines as "Advanced Technology Products." It is likely that several vital products in that grouping are largely or entirely produced in a locale within the China Sphere. Those items need identification for the "chokehold" threats such dependency may represent.
- ✓ Equally important, reportage on the overall ATP trade relationship between the United States and other nations, particularly the China Sphere, can usefully serve to educate the public about the future

competitive challenges the national faces and the need for more refined policies in areas such as the role of higher education, support for science and technology, intellectual property rules and enforcement and trade policy.

- ✓ Thus, we recommend that the Commission consider issuing regular reports on the U.S. ATP trade with China, the China Sphere and the rest of the world-much as the Labour Department does on employment. Ideally, the Commerce Department could prepare this information for the Commission in a far more usable form than it is now presented to the general public. The tables contained in this report could be updated, for instance, by the Commerce Department. This and other information, combined with data about U.S. domestic production and consumption of ATP goods, would allow our leaders to constantly monitor for possible “Kyosei” situations.

Competitiveness Enhancement Programme

10. During the recent visit of the Chairman of the Microsoft to India, an announcement was made that the Microsoft would like to collaborate with the Indian SMEs, particularly the Clusters, helping them develop specific IT software for enhancing their competitiveness. This is the result of the detailed discussion which Microsoft had with the NMCC. Microsoft had also announced a US\$ 15 million package to be spent by them on identified clusters. They are seeking the guidance of NMCC in identifying and adoption of suitable SME clusters. A copy of the Press Release in this regard is enclosed for the information of the members. The following of the highlights:

- Microsoft and the NMCC propose to partner together to create knowledge network amidst identified clusters across India to facilitate backward and forward linkages, key essentials for the manufacturing sector.
- The networks will additionally enhance access to markets; improve skill through relevant and focused training and provide for relevant and customized solution for the manufacturing sector. This would energize the NMCC’s efforts to establish a sustainable growth path for the small-medium enterprises in India.

The 2nd agenda item: “National Manufacturing Competitiveness Programme” (NMCP) The following are the highlights of the agenda item:

The Government has announced formulation of a National Competitiveness Programme, particularly to support the Small and Medium Enterprises (SMEs) in their endeavour to become competitive in the Budget of 2005-06.

1. Accordingly, the NMCC has discussed in detailed with relevant stakeholders like the Ministry of SSI in a number of meetings and has conceptualised and finalised the components of the programme incorporating suitable inputs from the stakeholders in a meeting taken by Chairman, NMCC on 7.12.2005. The Hon’ble Prime Minister while recently addressing the 78th AGM of FICCI on December 24, 2005 has observed “I hope the National Competitiveness Programme announced by our Government, to support small and medium enterprises in particular, will enable this. The NMCC, along with the Ministry for Industries, is in the process of finalizing the scheme in consultation with stakeholders. This Scheme, once put in operation, could help in improving the competitiveness of Indian firms”.
2. Ensuring that the Small Scale Sector grows at a healthy rate is crucial for the overall growth of Manufacturing Sector as also the National Economy. For this to happen the small scale sector has to become competitive.
3. To obtain national competitiveness or sectoral competitiveness a number of actions would be needed at various levels. The Indian Industry will have to become competitive by cutting down overall costs and improving quality to survive and grow. The situation confronting the Small Industries in particular provides both opportunities as well as challenges. The draft ‘National Strategy for Manufacturing’ prepared by the NMCC elaborates on the various aspects about ensuring competitiveness of the manufacturing sector.
4. Ultimately, it is firms that compete in the market and not countries. Therefore, it is necessary for them to become competitive by building abilities to acquire, assimilate, develop new technologies; reduce production costs; cut down delivery time; practice Total Quality Management; enhance productivity and customer service. While some organizations in the country have initiated Lean manufacturing practices and have started to reap the benefits, these practices have not reached many industrial units in the country. The firm level competitiveness has to be strengthened by having an appropriate policy environment. Therefore, the NMCP deals mainly with firm level

competitiveness. It is designed to address the issues of competitiveness in the background of global challenges.

5. **A National Lean Manufacturing Competitiveness Programme** needs to be implemented so that it would cover various important sectors of the industry. The general approach in the National Programme on Application of Lean Manufacturing would be to work in clusters with focus on clusters approved under IIUS to begin with. It is also envisaged to work in collaboration with Industry Association or SPV constituted under the IIUS and other industrial clusters functioning across the country. About 10000 firms in various industrial clusters/ industrial sector can be selected all over the country based on firms' willingness to participate and minimum threshold technological capability. The total project cost would be **Rs.400.00 crore** for five years and could be adjusted further depending upon the experience/integration with other schemes. To ensure the commitment and full involvement of the selected firms, 25% of project cost (Rs.100 crore) has been proposed to be contributed from the Industry.

6. The Ministry of SSI has been implementing several schemes for the growth and development of the small scale industries. Recently they have prepared a comprehensive package for promotion of micro & small enterprises which is under consideration. The package needs to be implemented properly and schemes having particular relevance for increasing the global competitiveness of Indian SMEs need to be supplemented and strengthened viz. relating to waste minimisation, market assistance, tool room expansion and business incubation. The directly relevant schemes out of the above package for increasing the competitiveness of the micro and small enterprises in India relate to **Technology and Quality Upgradation Support; Marketing Support, Support for Entrepreneurial and Managerial Development.** Market assistance and technology upgradation activities would be carried out by the Ministry of SSI in co-operation with TIFAC/CSIR in selected areas where technological obsolescence is high. Accordingly, Ministry of SSI has proposed to organise 50 sensitization campaigns, 50 bench marking studies, provide in-plant technology support to 1000 small units and to participate in 25 selected exhibitions. It is expected that the total fund requirement for these activities would be **Rs.26.50 crore** for five years. 15 new Mini-Tool Rooms are proposed to be set up in view of the proven usefulness of the existing ten tool rooms as extension centre of existing tool rooms. This is likely to be at an approximate cost of **Rs.135 crore** for five years. To set up Business Incubators the Government will provide financial assistance to select universities, business schools, engineering and technological institutions, reputed training institutes capable of supporting

entrepreneurs or new SME founders. This scheme envisages selection of a large number of academic and training institutes, at least 50 in the next 5 years, and provides financial support as grant-in-aid to set up at least 100 business incubators to host about 1000 small enterprises. (Budget provision of Rs.50 crore is required for five years).

7. **Innovation** is clearly crucial to the future of Indian manufacturing industry. To improve IPR awareness the need is to target SMEs to ensure they can use the IP systems effectively; improve the available evidence base on IP use and awareness as well as develop appropriate metrics to monitor and assess progress; and target "innovators of the future", such as business studies, design and technology students and entrepreneurs, to raise awareness of IP. Improving awareness of Intellectual Property Rights (IPRs) amongst businesses, particularly Small and Medium-sized Enterprises (SMEs), means that they will be able to make informed decisions about their strategies for protecting their ideas. It is necessary for the Government of India and its concerned Ministries jointly with relevant stakeholders/Industry Organisations like CII, FICCI and ASSOCHAM to **launch a national campaign for Indian firms to invest in next generation intellectual property in the product, process and practice domain.** (Budget provision of Rs.50 crore is required for five years)
8. A National Quality Campaign as **enabling platform for developing competitiveness in the Indian manufacturing industry** is needed. This is key to their survival. Role of quality is to be visibly demonstrated in making SMEs competitive and more importantly in improving their business/financial performance. The orientation of National Quality Campaign is to be appropriately changed from "Promotion of Quality Standards" to "Enabling SMEs to be competitive through quality management standards and quality technology tools". Budget provision of Rs.50 crore is required for five years.
9. **The Design Clinic** scheme is being proposed to be implemented to bring Indian manufacturing sector and design expertise on to a common platform and to provide expert advice and cost effective solutions on real time design problems, resulting in continuous improvement and value addition for existing products. (Budget provision of Rs.50 crores would be needed for five years).
10. Current Stage of IT adoption in Indian manufacturing sector is not encouraging. Indian manufacturing industries are facing various challenges in terms of global competitiveness partly due to lack of IT enablement of their business processes and management practices. A

planned model of IT adoption needs to be implemented in the current Indian manufacturing scenario. The relation between quality and certification and the assessment process (auditing) is also an extremely important element in the manufacturing and movement of goods and in the whole supply chain. These concepts have to be adapted in the e-business context too and applied to the manufacturing sector in India in order to enable them to be competitive. (Budget provision of Rs.160.00 crores would be needed for five years)

11. Basically, the approach to be followed under the scheme would be selection of some clusters and firms based on some identified criteria and doing a diagnostic study with the help of qualified professionals in order to identify the major gaps in their competitiveness and necessary steps which could be taken to correct the situation, This could mean interventions in technology upgradation, design and IPR protection, marketing and sales promotion strategy, skill upgradation etc. The following four major areas could be covered for suitable action based on the diagnostic study and the particular requirements of the firm/cluster/industry:

- Manufacturing and engineering
- Marketing
- Financial and general management
- Information technology

Based on the diagnostic study an action plan would be prepared to make the firm competitive taking into account the context and the specific requirements. The cost of implementing the plan would be shared depending upon the intervention/industry/size. The implementation would be done on the Public Private Partnership mechanism and the funds also would need to be spent both by the firms and the Government. The Government assistance would not be in the nature of subsidy but for implementing the concrete interventions identified to improve competitiveness. Linkages to existing schemes of the Government which promote competitiveness would also be established to reinforce the steps taken under the proposed scheme.

12. Funding requirement for the NMCP:

(Rs in crores)

Sl. No.	Name of the Sub-Scheme	Amount
1.	National Programme on Application of Lean Manufacturing	300.00
2.	Promotion of ICT in Indian Manufacturing Sector	160.25
3.	Mini-Tool Rooms to be set up (by Ministry of SSI)	135.00
4.	Technology And Quality Upgradation Support for SMEs	93.50
5.	Support for Entrepreneurial and Managerial Development of SMEs	66.50
6.	Design Clinic scheme to bring design expertise to the Manufacturing Sector	50.00
7.	Enabling manufacturing sector to be competitive through quality management standards and quality technology tools	50.00
8.	National campaign for investment in Intellectual Property	50.00
9.	Market assistance/SMEs and technology upgradation activities (Ministry of SSI in co-operation with TIFAC/CSIR)	26.50
10.	Marketing Support/Assistance to SMEs	24.25
	TOTAL	956.00

The details of the "National Manufacturing Competitiveness Programme" (NMCP) are enclosed to this agenda item for consideration and discussions.

The 3rd agenda item: The Final Draft of the " National Strategy for Manufacturing" The Final Strategy paper is placed in the NMCC web site.

The 4th Agenda item: Work Programme of the National Manufacturing Competitiveness Council from January 2006 to 31st March 2007, The following is the highlights of the agenda item:

The National Manufacturing Competitiveness Council (NMCC) is functioning as an inter-disciplinary and autonomous body to serve as a policy forum for credible and coherent policy initiatives in the manufacturing sector. The main objective of the NMCC is to provide a continuing forum for policy dialogue and to energize and sustain the growth of manufacturing industries. The NMCC has been suggesting various ways and means for enhancing the competitiveness of manufacturing sector including identification of manufacturing sub-sectors which have potential for global competitiveness taking into account the current strengths and constraints of identified sectors. The NMCC has recommended a National level as well as sector / industry level specific policy initiatives as is required for augmenting the growth of the manufacturing sector. The NMCC is also helping in the implementation of

the strategy. Accordingly, the following work programme has been prepared for the consideration of the Members of the Council:

1. Monitoring of the Indian manufacturing sector

The overall growth of the manufacturing sector is critical for ensuring the healthy growth of the economy. In order to ensure the GDP growth of the Indian economy between 8 to 10 per cent on a sustained basis the manufacturing sector will have to keep growing at 12 to 14 per cent in the next decade. Competitiveness is central to the robust growth of the manufacturing sector. This would mean that the growth targets for different industries sub-groups have to be monitored closely and suitable policy initiatives taken. This involves the following:

- Identifying the list of select priority sectors where India has the potential of being highly competitive and which need to be monitored closely depending on their weighted-average contribution to the manufacturing growth index. to ensure high growth rate of the manufacturing sector on a sustained basis.
- Undertaking sector studies to identify the major bottlenecks impacting industry competitiveness.
- Assessing the employment potential and elasticity of the selected sectors
- Identifying key projects and policy initiatives in each of the sectors that should be taken up immediately based on consultations with industry stakeholders.
- The study would focus on addressing all areas to ensure that these sectors are placed on a high growth trajectory to enable India to emerge as a world leader in these sectors.
- Making recommendations on all important aspects to address sector competitiveness, such as policy initiatives, administrative support, physical infrastructure, economic infrastructure, credit/market support initiatives, etc.

Key benefits

- Benchmarks sector competitiveness of India vis-à-vis competing countries
- Provides an in-depth assessment of the gaps and constraints in the value chain for each sector
- Identifies the actions to be initiated by each stakeholder
- Provides a road map for achieving sector competitiveness by providing immediate, medium term and long term actions through prioritization.

1.1. The various action plans being finalised by different Ministries need to be coordinated and monitored to ensure that they are on course.

In this connection a system would be need to be set up for institutional monitoring at the higher level regularly as manufacturing cuts across different Ministries.

Establishing a performance monitoring framework for the manufacturing sector:

- Inputs - measuring the progress of the activities undertaken/proposed by NMCC. This would measure the efforts/ resources utilised towards a set of activities.
- Outputs- measuring the progress on outputs. The study may recommend that a certain policy initiative is to be taken and that a project has to be implemented. Then we should measure the progress on these two aspects with respect to the sector study.
- Outcome- measuring the final impact on beneficiaries. Whether finally the competitiveness of the sector has improved as planned, or not.

Key benefits

- Acts as tool to measure performance at all stages of an initiative, i.e. from planning to implementation to final realisation of benefits to beneficiaries.
- Facilitates in timely course correction, in case the desired impact are not being seen.
- Can also become a tool to measure the effectiveness of NMCC and its mission.

1.2. Comprehensive programme to address infrastructure and logistical constraints to the manufacturing sector in India. This involves the following:

- Benchmarking infrastructure and logistic services to the manufacturing industry in India vis-à-vis select competitors, such as China.
- Undertaking infrastructure gaps assessment relevant for the manufacturing sector in comparison to international best practice.
- Identifying key industrial clusters and assessing their infrastructure gaps.
- Interacting with industry stakeholders to prepare a demand driven infrastructure upgradation programme to be taken up immediately.
- Identifying key projects and programmes to provide infrastructure and logistic services to the manufacturing sector.

- Formulating policy and financial support packages to encourage Public Private Partnerships (PPPs) in infrastructure delivery with respect to the identified projects for key industrial clusters.
- Designing appropriate institutional arrangements to monitor programme implementation and performance.

Key benefits

- Development of base line data on infrastructure and logistic provision in key industrial clusters in the country.
- Setting of targets and benchmarks to be achieved.
- Incorporating the needs of industrial clusters in the individual infrastructure plans of line ministries, such as in the NHDP, Major Ports investment plans, Indian Railways/ CONCOR investment plans, etc.
- Developing a holistic infrastructure programme to specifically address the needs of key industrial clusters.
- Improving service delivery standards and expediting infrastructure investments through PPPs in India.

1.3. Developing India's skilled talent pool relevant to manufacturing.

For the manufacturing sector to excel it is vital that the human resources have the necessary skills and qualifications to provide cutting edge solutions. Industrialized economies have grown on the basis on innovation and R&D. Their strategy has, in general, been focused on creating centres of excellence, identifying skill requirements and adopting a programmatic approach. For India to attain manufacturing excellence, it is important to adequately address this area. This involves the following:

- Undertaking a comparative study of key industrialized nations to identify measures taken by them to enhance the skill base and talent pool for human resources, and key impact of these initiatives.
- Examining the adaptability of these key initiatives in the Indian context and what benefits/ impact can be expected.
- Designing a strategic framework for nurturing India's talent pool.
- Identifying niche areas for creating centres of excellence to accelerate cutting edge research and skill building.
- Engaging academic institutions, experts and industry stakeholders in a dialogue to develop workable solutions for India that would make the difference to the manufacturing sector growth.

- Formulating specific capacity building programmes for identified sectors to kick start the process in India.

Key benefits

- Identification of international benchmarks in talent development.
- Targeted sector specific programmes and initiatives.
- Addressing the key bottleneck of talent / skill base for achieving the competitive edge.
- Developing a highly skilled human resource base.

2. Sub-sector engagements in the manufacturing sector

2.1. The following sub-sector engagements in terms of fresh meetings as well as review meetings have taken place in the current year so far:

1	Leather & Leather Goods
2	Paper
3	Capital Goods
4	Auto Components
5	Telecom Equipment
6	Handicrafts
7	Chemicals & Petrochemicals
8.	Drugs & Pharmaceuticals
9	Ports
10	Power Sector
11	IT Hardware
12.	Textiles & Garments

In addition, meetings to discuss generic issues of Funding SMEs, Manufacturing Competitiveness programme related to SMEs, Human Resource Development and Labour have taken place.

2.2. In respect of the sub-sectors reviewed by the NMCC some have shown considerable action taken in the current year flowing out of the findings in the sub-sector meetings.

- In the Textiles & Garments sub-sector it has been reported that the export share of India has significantly increased and substantial investments are being made in India in textile clusters and parks on a public- private partnership mode to set up production facilities quickly with a view to exploit the opportunity created by the phasing out of the Multifibre Agreement of the WTO in 2005.
- In the IT Hardware sector an action plan has been prepared by the Department of IT in consultation with the NMCC which seeks

to correct the imbalance by encouraging the hardware sector also simultaneously.

- In the strategic capital goods sector progress has been reported in terms of preparing a comprehensive action plan for the growth of the capital goods sector.
- In case of the telecommunication hardware sector an action plan has been prepared for ensuring growth of Indian manufacturing and taking advantage of the spectacular growth of the telecommunication sector in the country.
- A strategic action plan for the development of the Indian leather sector has been prepared.
- A high level task force has been constituted with representation from the Industry to prepare an Automotive Mission Plan 2005-2015 to make India into a global automotive hub.
- In the Chemicals & Petro-chemicals and Drugs & Pharmaceuticals sectors also suitable policies are under finalisation.
- A handicrafts export promotion strategy has been worked out and is under implementation.

The concerned Departments are preparing their own recommendations for the budget on the basis of the discussions at the sub-sector meetings. In the coming months the NMCC has to follow up on the finalisation of policy and implementation of the action plan for growth of the respective sectors. Some sectoral studies will be undertaken as required to help in the implementation of the programmes. The NMCC would be identifying and taking up suitable studies relating to specific sub-sectors of the economy based on the requirements.

In addition, in respect of the following manufacturing sub-sectors NMCC would be initiating further meetings:

- i. Biotechnology
- ii. Cement
- iii. Gems & Jewellery
- iv. Fertilizers
- v. Minerals/ Metals
- vi. Steel

Some Generic Issues also as listed below would be covered in the future work plan:

- i. Innovation Policy
- ii. Competitiveness of PSEs
- iii. Infrastructure
- iv. Labour Issues
- v. Off set Policy and related issues & Technology transfer issues
- vi. Tax Issues
- vii. University/ Industry co-ordination/ collaboration

2.3. Analysis of factors of productivity for select manufacturing sub-sectors. This involves the following:

- Identification of key factors of productivity for each manufacturing sector.
- Preparing the baseline data for each sector in India.
- Benchmarking each industry in India vis-à-vis select competitors, such as China.
- Identifying specific actions (policy, administrative, financial, infrastructure, education, vocation, etc.) to achieve international targets.
- Formulating key programmes for each industrial sector and designing appropriate institutional arrangements.
- Monitoring implementation and performance.

Key benefits

- Development of base line data key industrial sectors in the country and setting targets.
- Compendium of key initiatives for each sector to address weaknesses in factor productivity.
- Monitoring performance for timely intervention and course corrections.
- Improving productivity standards in the manufacturing industry.

3. National Manufacturing Competitiveness Programme (NMCP)

- 3.1. The National Manufacturing Competitiveness Programme (NMCP) has been worked out to help improve the competitiveness of Indian firms. As the programme is comprehensive and is targeting a large number of firms directly for the first time to increase their competitiveness in different sub-sectors proper implementation is to be ensured and several initiatives need to be taken. The various sub-components of the comprehensive programme would need to be

monitored and coordinated with different implementing agencies in order to ensure success. In particular the following schemes would need to be closely monitored.

National Programme On Application Of Lean Manufacturing
Promotion of ICT in Indian Manufacturing Sector
Mini-Tool Rooms proposed to be set up by Ministry of SSI
Technology And Quality Upgradation Support for SMEs
Support for Entrepreneurial and Managerial Development of SMEs
Design Clinic scheme to bring design expertise to the Manufacturing Sector
Enabling manufacturing sector to be competitive through quality management standards and quality technology tools
National campaign for investment in Intellectual Property
Market assistance/SMEs and technology upgradation activities by the Ministry of SSI in co-operation with TIFAC/CSIR.
Marketing Support/Assistance to SMEs

4. Collaboration with Microsoft Corporation in Competitiveness Enhancement Programme

- 4.1. NMCC and Microsoft Corporation India Private Limited have agreed to collaborate for the launch of a competitive enhancement programme for small and medium enterprises in the Indian manufacturing sector. Among other recommendations, information and communication Technology (ICT) intervention and absorption amidst manufacturing clusters (concentration of enterprises in a particular location, facing common opportunities and threats) have emerged as key highlights of the NMCC report. Microsoft and NMCC propose to partner together to create knowledge networks amidst identified clusters across India to facilitate backward and forward linkages, key essentials for the manufacturing sector. The networks will additionally enhance access to markets; improve skills through relevant and focused training and provide for relevant and customised solutions for the manufacturing sector. This would energise NMCC's efforts to establish a sustainable growth path for the small-medium enterprises in India.
- 4.2. Microsoft and NMCC will work together to provide a framework for knowledge networks which will help create a self sustaining eco system of knowledge creation and sharing with the industry associations. Towards this Microsoft will partner with polytechnics and training institutes to create centres of excellence and partner with local academic institutes located in the regions to provide R&D support. Further, Microsoft will engage with Independent Software

Vendor's (ISV) and the developer community to incubate customized IT applications for these clusters. The NMCC will be the overall coordinator of the initiative for ICT adoption, partnerships within and outside the cluster with relevant organizations and management of assets such as internet portals set up as part of the initiative at the national level. Working groups would be formed representing the important stakeholders for finalising and monitoring the programme with Microsoft as well as the Manufacturing Competitiveness Programme.

5. Commissioning of Studies/research reports

5.1. Several studies are being planned to be commissioned by the NMCC. Some illustrative areas identified in the draft of the 'National Strategy for Manufacturing' for taking up specific studies are :

<u>Para No.</u>	<u>Subject Area of further Investigation/Development</u>
4.3.1	Lowering Cost of Manufacturing
4.5.2.2	National Vocational Educational Qualification System
4.6.1	Global Best Practice (Manufacturing Advisory Service)
4.7.5 & 4.12.2	Re-engineering Procedures (Minimizing Transaction Costs)
4.8.10	Enhancing Competitiveness of Un-registered Firms (Global Best Practices)
4.9.1	Low Productivity of Labor (PSUs)
4.11.1	Firm level Competitiveness (Strategies & Road Map Development)
4.9.2	Lean Manufacturing Advisory Center
4.13.5	Development of MIS for NMCC
4.13.6	Survey of Business Climate

5.2. In addition some more areas need to be addressed and some issues which can also be taken up for detailed study for which NMCC can get suitable research inputs from outside such as:

- Survey of competitiveness of Indian manufacturing - similar to National manufacturing Survey done in 1997 and 2001 by IIM, Ahmedabad
- Trends in total factor productivity of the manufacturing sector in India - based on work earlier done by National Productivity Council (NPC)
- Reasons for declining productivity in the Indian manufacturing sector
- Survey of literature on innovation and technology transfer issues relevant to Indian context.
- Implications of FTAs on the competitiveness of Indian manufacturing industry

- Analysis of data from IMD World Competitiveness Year Book/World Investment Report/World Competitiveness Report
- Cross country comparisons using secondary sources about competitiveness and productivity and benchmarking of standards.
- Labour intensity of various manufacturing sectors of the Indian economy.
- Employment potential of manufacturing sub-sectors
- Prioritisation of interventions in the sub-sector engagement in the Indian manufacturing sector
- Monitoring mechanism of the growth of manufacturing sector
- Measuring of performance through key performance indicators both qualitative and quantitative to assess the progress of manufacturing sector.
- Statistical base/validity/relevance of Index of Industrial Production (IIP)
- Indigenous manufacturing in the defence sector
- Offset principle to be explored in the defence and other high value procurements..
- Cluster development studies and implementation issues in consultation with all stakeholders.
- Prioritisation and matrices of sub-sectors for medium to long term to be created.

5.3. The exact details of the studies and specific funds required for different studies can only be ascertained after details are obtained based on requirements and would be done separately. Low productivity growth in the manufacturing sector leads to an overall slackness in the economic performance of the country. In this context, there is an urgent need to have a proper monitoring, documentation and dissemination of data and analysis on the determinants of productivity at national, state and sectoral/industry levels on a continuous basis. It is very important from the point of view of improving competitiveness of the country in general and the industries in particular. Analysis of productivity levels would facilitate policy makers at national and state levels to understand better about their economy and industry in terms of weak and strong areas of competitiveness with respect to other countries and industries.

5.4. As of now there exist certain gaps in the understanding of manufacturing productivity in India particularly at the state level. Different studies have come up with contrasting results regarding the productivity performance of manufacturing sector during pre and post liberalization phases. The National Productivity Council (NPC) can take up on behalf of the NMCC studies relating to productivity trends in the manufacturing sector in order to identify possible areas of policy intervention.

5.5. Framework for formation of a Global Technology Acquisition Fund.

With reference to section 3.3.4 of NMCC's strategy paper, the concept of formation of a Global Technology Acquisition Fund (GTAF) shall be examined and a suitable management framework recommended. This would incorporate a national knowledge management centre with a technology tracking cell. This involves the following:

- Preparing the concept of GTAF.
- Undertaking international profiling and case studies to adapt international best practice.
- Formulating the business model and fund management framework.
- Identification of key actions to be initiated by the Government.

Key benefits

- Promoting technology enhancement in India.
 - Bridging the critical gap in financing technology related acquisitions in India.
- 5.6. Another area of research, which needs urgent attention, is with respect to the measurement and analysis of productivity growth across the manufacturing sectors in the states particularly at the disaggregated levels. This would impart sufficient understanding on the part of political leaders and other opinion makers for initiating measures to implement the second-generation economic reforms without much delay. Case studies on high productivity and low productivity sectors would help in evolving strategies for the manufacturing sectors while evolving their own productivity and competitiveness strategies.
- 5.7. The competitiveness of the manufacturing sector is based on three level of analysis, namely, firm level, sub-sector level and the national level and each needs to be targeted and studied. National Manufacturing Surveys in 1997 and 2001 has been carried out by a team led by Prof. Pankaj Chandra of Indian Institute of Management Ahmedabad who has indicated that they would be willing to take up

another national level survey in 2006 for assessing competitiveness of the Indian manufacturing sector. A proposal by Prof. Pankaj Chandra is under consideration by NMCC and the follow-up survey would be taken up after discussing and finalising the proposal based on NMCC's requirements.

- 5.8. Similarly, NMCC can look at drafting a National Innovation Policy from the perspective of the manufacturing sector which would help to increase the competitiveness of the Indian manufacturing sector. This can be explored to be taken up as a project with the help of Prof. Anil Gupta of IIMA who is the Vice Chairman of the National Innovation Fund set up by Government of India and others who have worked in this area.
- 5.9. Designing adequate financial arrangements to support innovation, through financial support to Framework for encouraging innovation in industry. This involves the following:

- Undertaking a comparative study of key industrialized nations that have grown through innovation.
- Designing appropriate institutional arrangements based on international best practice.
- Designing adequate financial arrangements to support innovation, through financial support to R&D Centres of Excellence, undertaking Product/Process innovation programmes, encouraging venture/ incubation funds, etc.
- Identifying measures to encourage entrepreneurship and innovation, through appropriate recognition (awards), financial support, policy and institutional support.

Key benefits

- Establishing innovation as key to growth in the manufacturing sector in India.
- Development of a comprehensive institutional and policy framework to nurture innovation.
- Kick start the process of innovation in the country.

The agenda item also included: "Status Of Indian Manufacturing & Its Global Competitiveness", The following are the highlights of the agenda item:

Indian Economy and Manufacturing Sector: An Overview

GDP of India as per the Economic Survey of 2004-05 is US\$ 550 billion. India, after China has the highest consistent growth of 6% plus. In 2003-04 Industry contributed about 26.9% of Gross Domestic Product (GDP) while Agriculture contributed 22.1% and Services 51%. The share of

industry is comprised of Manufacturing (17%), Mining & Quarrying (2.3%), Electricity (2.4%) and Construction (5.2%). Of the Manufacturing, Registered Manufacturing contributed 11.2% in the GDP while the Un-registered Manufacturing contributed 5.8%.

Exports from India in 2003-04 at US \$ 55 billion lag behind some of the Low Cost Countries (LCCs). India's exports were only 12% of exports from China, 36% of Taiwan, 33% of Mexico and 55% of exports from Malaysia. **Manufacturing exports contribute to about 73% of the total exports** from India. India's manufacturing exports at around US \$ 40 billion in 2002-03 are substantially lower compared to other competing economies, viz. China (US\$ 300 billion), Taiwan (\$145 billion), Mexico (US \$141 billion), Malaysia (US\$ 78 billion), Thailand (US\$ 55 billion). Only five sectors namely, gems & jewellery, textiles, engineering goods, chemicals and leather & leather goods contribute the bulk of exports. Exports of manufactured goods, mainly engineering goods, chemical and related products, textiles including readymade garments and gems & jewellery, have accounted for almost two-thirds of the rise in exports.

Industry accounts for 26% of total employment while agriculture accounts for 57% and services for 17%. **Manufacturing sector accounts for 12% share in total employment** (48 million persons). Only a small percentage (8.2%) of the total workforce of the country is employed in the organized sector. Public sector accounts for 69% of employment in the organized sector. As per the 55th National Sample Survey, the rate of growth of employment declined from 2.7% in 1983-94 to 1.07% in 1999-2000. The decline in the growth of employment during the 1990s was associated with a comparatively higher growth in GDP. This indicates decline in the labour intensity of production. The National Common Minimum Programme recognises that manufacturing competitiveness is crucial to growth of the sector and consequent employment generation.

The growth of Industry in the last decade hovered around 6% p.a. and industry continued to keep its share in GDP around 26-27% while share of services continued to improve at taking away from agriculture. In 2003-04, machinery (28%), basic chemicals (22.6%), basic metals (12.7%) and transport (12.5%) accounted for nearly 76% of manufacturing growth.

Manufacturing: Global Scenario

Global industrial activity is heavily concentrated in a few countries. Developed countries account for about three fourths of global value added. Developing countries' share of world manufacturing value added has risen substantially in the past two decades. Asian countries now account for about two-thirds of developing country value added. Moreover, the increase in developing countries' share of world manufacturing value

added is much lower than the increase in their share of world manufactured exports.¹

Except for petroleum products where developing countries' share of world value added almost matches that of developed countries, their share is only about half in natural resource sector (basic metals and non-metallic minerals) and labour-intensive sectors (such as tobacco, textiles and wearing apparel). Share of developing countries is particularly low in capital as well as technology intensive sectors (such as paper, printing and publishing, and electrical and non-electrical machinery). Within the group of developing countries, the structure of manufacturing value added has remained largely unchanged over the past decade except for a major increase in the shares of electrical machinery and transport equipment and a large decline in the shares of textiles and wearing apparel.

East Asian economies for example China (35%), Indonesia (25%), Malaysia (31%) and Thailand (34%) have a higher contribution of manufacturing in their GDP compared to 17% in the case of India. Manufacturing has been the engine of growth for all major nations including USA, Japan and Germany. China and Korea clearly staked their development on the manufacturing sector, which was encouraged to grow over 10% p.a., compared to an average of 6.3% during 1991 to 2003 in case of India.

Need for a Strong and Robust Manufacturing Sector

The development pattern normally first satisfies the commodity needs of human being, through agriculture and later by manufacturing, and as these needs are met increasingly, the services sector start emanating. However, in India's development pattern, through service sector has become the major contributor to national income (due to the availability of highly skilled personnel and relative scarcity of capital), a significant portion of labour force still has not found jobs in secondary and tertiary sectors and therefore has to depend on agriculture. Agriculture is becoming more and more technology oriented. Growth of service sector to be sustainable in the long run needs to be supported by manufacturing. Worldwide 70% of service sector is estimated to be dependant on the manufacturing sector.

India urgently needs to revive its manufacturing sector in view of the following:

- *It is estimated that India needs to create 7-8 million new jobs each year outside agriculture just to stay at its current unemployment level of 7 per cent. Manufacturing jobs are ideal for workers transiting out of agriculture. The revival of manufacturing can*

¹ UNCTAD's '2004 Development and Globalization- Facts and Figures'

create close to 2.5 million new jobs each year as opposed to one million jobs created each year over the last decade.²

- *Manufacturing is a force multiplier. It creates productive employment, promotes agriculture and services sector and spins a cycle of wealth creation. Investments in manufacturing produce a Keynesian multiplier effect on GDP growth to the tune of four times in India. Every rupee invested adds four rupees to GDP.*
- *Manufacturing provides an array of products to end users for fulfilling not only basic needs but to improve standard of living.*
- *Manufacturing is of strategic importance to a nation.*

Spurring manufacturing growth is a pre-requisite to achieve and maintain the targeted GDP growth of 8% from the current levels of 6.2%. Towards this target, the industry has to grow at least at 11% instead of the current 6.9% and for achieving this, manufacturing has to grow at 12 to 13% p.a.

Manufacturing Competitiveness and India

Competitiveness generally implies that the produce of an industry is competitive in the global scenario in terms of quality, cost, performance and customer satisfaction. This implies the best quality and services at the lowest possible price to the end-user. Some of the salient features of competitiveness can be described as below:

- High Quality - a passion for excellence;
- Low cost;
- Higher customer satisfaction during the life span of the product - zero complaint;
- Promoting sustainable development;
- Reasonable return on investment to the manufacturer;
- Stable or increasing global market share

The competitive features depend not only upon the internal processes of a company, but are also greatly influenced by external factors like national standards & governance, supplier change management, vendor relations, competition, social and physical infrastructure, S & T support, labour practices, environment standards etc.

Though cross country comparison of manufacturing competitiveness is not available in ready format, the IMD's World Competitiveness Yearbook (WCY) and WEF's Global Competitiveness Report (GCR) compare global competitiveness of countries. The competitive ranking in WCY-2004

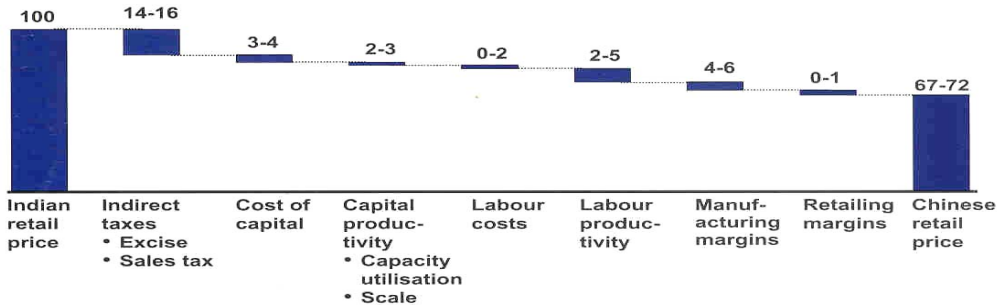
² CII – McKinsey Report Oct. 2002 on Learning from China to Unlock India's Manufacturing Potential

is based on four major factors: economic performance (domestic economy, international trade and investment, employment and prices), government efficiency (fiscal policy, institutional framework, legislations pertaining to business and education), business efficiency (productivity, labour market, finance, management practices and the impact of globalization) and infrastructure availability (basic physical, technological, scientific infrastructure, health, environment and the value system). The Global Competitiveness Report ranking is based on technological and communication factors, government effectiveness, macroeconomic environment and stability, credit rating of the country, quality of business environment, etc. From both the reports on competitiveness one can infer that significant steps are required in terms of improving infrastructure, governance, taxation and tariff and labour reforms etc. in the era of global competition.

What Ails Indian Manufacturing

It is estimated that off shoring of Manufacturing to Low Cost Countries will increase from US\$ 1,400 billion in 2002 to US\$ 4,500 billion by 2015. The growing off shoring opportunities in the manufacturing sector are critical for growth of Indian economy and India has the potential to India can garner manufacturing off shoring of US \$ 300 billion.³ These opportunities could be harnessed only if India can compete in terms of prices and quality both. India has already proved its quality capabilities in sectors such as auto components, chemicals and pharmaceuticals and IT services and has quality skill pool. It is in pricing that India faces tough competition from its competitors. Compared to neighboring China, domestic retail prices in India are higher by about 30% that suppresses demand for manufacturing goods negating investment opportunities. The following chart⁴ perhaps best provides an insight of what ails Indian manufacturing:

Overall Drivers of Price Difference
(Indian retail price indexed to 100)



³ CII McKinsey Report on 'Made in India - The next big manufacturing export story', October 2004

⁴ Source: Learning from China to Unlock India's Manufacturing Potential: A CII-McKinsey Report 2002

Between the Administrative Ministries and Industry Associations a number of studies have been made recently by leading consulting organizations on various Industries. Observations of some of these studies have been captured and given in the **Annexure I**. The following are the salient ailments observed in these studies:

- In the post liberalisation period, investments by industry in Manufacturing Sector did not increase in a sustained manner.
- Focus and investments on innovation and R&D are lagging behind. There is absence of synergy between industry, academia, and Government.
- The education and training policies need to be redesigned to raise the skills and capabilities to suit manufacturing sector and give thrust to industry focused research.
- Industry needs to adopt global standards and establish contemporary technical and managerial benchmarks and practices.
- Infrastructure is very poor and at times not existent, reducing global competitiveness.
- The regulatory and procedural hindrances are many. For example it takes on an average 84 days to start a business in India compared to 41 days in China 5 days in the US and 2 days in Australia.
- Taxes and duties are very high. There are multiple duties imposed by multiple Governments/ authorities.
- Rigidity in labour regulation such as hiring & firing of employees and restrictions on contract labour hinder manufacturing growth.
- Protection to small-scale units is hindering their growth and competitiveness. There is disincentive to growth and modernization. Affordability and access to state of the art technology and financing are often imponderable constraints for small units.

Following Points were made by the Council Members:

On Skill Development

Chairman, NMCC mentioned that the subject matter has been extensively debated amongst various members of the NMCC. Even though there was a budget pronouncement about the upgradation of 100 ITIs not much progress has been seen on the proposal. He cited an article that appeared in the Newsweek which mentioned that 70 percent of the graduates coming out of colleges in India are not employable.

Mr. Venu Srinivasan mentioned that a lot of DMEs/ Polytechnics have sprung up in Tamil Nadu. However, investments in ITIs have not been forthcoming because of which the small scale industry suffers. He brought out the changing patterns of skill requirements to suit the present day needs of the industry.

Mr. Baba Kalyani felt that the issue of availability of qualified people is emerging as a major constraint for the industry. Elaborating on the learning's gained by his organization which has tapped science college graduates and trained them to man various positions in the company, he felt that this is one stream that is still untapped by the Industry in spite of the presence of a large pool of graduates from such colleges across all over the country. He advocated the need to pay more attention by way of re-orienting the syllabus of science colleges and improving the quality of teachers so that they can form the second level high quality manpower resource for the industry. Dr. Ajay Dua mentioned that Ministry of Labour has taken up the task of upgrading 500 ITIs during the 10th Five Year Plan which would be fully funded by the Central Government.

Mr. Onkar Kanwar felt that in spite of very many meetings held by the representatives of various associations with the Government; no methodology has been put in place for public private partnership in the upgradation programme of ITIs. He felt that this area requires special attention.

Dr Surinder Kapur mentioned that it is possible to work with the ITIs and recalled that the State of Haryana has entered into MOUs in respect of the upgrade of 5 ITIs with the private sector. Close monitoring is also being done at the Chief Secretary level. Prof. Bibek Debroy mentioned that the NMCC must explicitly take into account The Apprentice Act, 1961. Many of the issues related to the growing problems have their association with the Act which needs a relook for suggesting required modifications.

Dr. R.A. Mashelkar said that the problem has to do more with lack of attention at the bottom of the pyramid where ITIs are located. There is a good amount of attention by the government at the top of the pyramid where IITs are present. He however felt that issues related to governance, salary structure, etc. are still to be resolved and said that the Council should clearly bring to the attention of the Hon'ble Prime Minister that top level attention is needed on skill building & education for meeting the emerging requirements of the industry. Ms. Uma Reddy brought out that in the entire process, the small scale industry which was earlier absorbing people from ITIs are not getting any one from ITIs and instead engineers are applying for the jobs. This she felt was not a good trend and unsustainable.

Mr. V Govindarajan stated that according to certain projections, close to 1.5 million skilled manpower is required and the output of the entire ITIs cannot meet this demand. Since the required scale is very high the issue of adopting a co-ordinated approach at the highest level between the Centre and the State governments becomes paramount.

On Sub-sectors

Chairman, NMCC pointed out that one option could be to select certain sub-sectors and put them on a 'Mission Mode' and give them targets and empower the mission leader for implementation. The mission mode can continue to function in the respective ministries and the NMCC could provide the mission leader with the expertise and necessary help as per the need. Such sectors could include Textiles & Garments, Leather & Leather Goods, IT Hardware, Food Processing, Auto Components, and Handicrafts. In addition where more than one ministry is involved, he suggested that a committee on the lines of TERC could be suggested to the Prime Minister for ensuring better co-ordination and resolving inter-ministerial problems.

Mr. Baba Kalyani, felt that lot of good ideas have come about in the deliberations of the Council over the last one year and the need is for moving forward. He felt that there is a need to pick up 4 or 5 ideas, create an implementation responsibility matrix and draw-up an actionable plan. If necessary an offsite group can be developed which has the expertise to make this happen.

Mr. Baba Kalyani stated that defence and aero space should also be included as core-sectors needing attention. Mr. Priyadrashi Thakur pointed out that Auto Sector should be a focus area considering its current growth and future growth potential.

On Manufacturing Competitiveness Programme

Mr. V Govindarajan welcomed suggestions from the council members on the 'Manufacturing Competitiveness Programme'. Especially in the context of procedural problems, he highlighted that specific suggestions are being made to bring about a focus on the implementation. Chairman, NMCC also sought the opinion of the members on the ways to speed up the process of improving the procedures. While on the subject, Dr Ajay Dua mentioned that the taskforce headed by Mr. Anwarul Hoda on the subject of procedures has submitted their recommendations recently.

Concluding his presentation, Mr. V Govindarajan highlighted the main recommendations as : The National Manufacturing Strategy must be

made as a national initiative with a ten year horizon; there should be annual milestones for achievement of the strategy and it should form a part of the annual budget exercises; Simplification of procedures must be attempted through an empowered group on the lines of the group constituted for VAT; creation of technology parks like the ones in USA; creation of a Global Technology Fund for acquisition of technology intensive companies abroad; push on certain core-sectors like cement, steel, ship building and capital goods for achieving growth in the industry; mission mode adoption in sub-sectors; at the NMCC have a review mechanism to see if the delivery is taking place or not; an apex mechanism on the lines of TERC headed by the Prime Minister to oversee the implementation of the National Strategy for Manufacturing. He brought to the attention of the members that the advanced technology products paper that forms a part of the agenda papers brings out that 60 percent of the imports into US of the advanced technology products is from the region in and around China. In comparison contribution from Europe is only one third. India does not have any presence. He suggested that there should be a group formed in the NMCC to examine this to suggest a way forward for India in this sphere.

On Strategy Paper

Ms. Isher Judge Ahluwalia felt that certain aspects of the strategy paper are not in consonance with the signals being received by the government from other similar agencies on the subject. She felt that there appears to be an explicit indication in the paper that SEZ's are not necessary whereas there is another input that the government is getting which seems to suggest that instead of calling them SEZs, to consider them as investment regions. Driven by the basic fact that investment is short there is a need for concentrating the same either in clusters or in designated zones. She cited the observations on the subject by Mr. Vinod Khosla who as a part of the NRI team is advising the PM. She suggested that a view should be taken that if because of infrastructure constraints there should be a focus on some areas where results can be showcased and then other areas taken up subsequently.

Mr. V Govindarajan clarified that in line with the feed back received from the Ministry of Finance what has been suggested in the Strategy Paper is not an either or situation but both options are mentioned. If necessary the aspect could be better clarified in the paper. Mr. Baba Kalyani brought out that a specific reason why an SEZ needs to be encouraged in the current context is that for socio political reasons it is not becoming possible to bring about uniform policies across the country. Dr. Ajay Dua felt that SEZ is a new concept and since the Act was enacted just last year, there is a need to give it more time. Mr. Anil Agarwal,

mentioned that the committee could suggest to the PM that in SEZs the flexible labour laws could be implemented in the first instance.

On the question of bringing out at least three new things at the policy level that need to be done as raised by Ms. Isher Judge Ahluwalia, it was suggested that the issue of power could be the first aspect that can be highlighted. Discussions on the subject brought out that other issues that could be highlighted in the meeting with the PM are : Infrastructure (Inadequacy and the cost that it imposes on competitiveness, power, roads, ports), Manpower (availability of skilled manpower), For SMEs create development banking infrastructure (medium and large industries should be encouraged to mentor SMEs), create a fund for acquiring technology rich companies abroad, get State Governments on board to get the reform process going, bring about changes that enable bringing down transactions costs.

In conclusion, Chairman said the views expressed will be taken into account in the final version of the "National Strategy for Manufacturing" which is expected to be completed within the next 15 days, and suggested that the council members could examine the agenda related to 'Manufacturing Competitiveness Programme' as well as 'Future work plan for the NMCC' and revert back with comments, if any. He also observed that since the work in NMCC is of an on-going nature there is a need to meet more often and suggested that the next meeting could be held in 6 weeks time. He then invited them to join him for the meeting with the Hon'ble Prime Minister.

Annexure I

1.1 CII McKinsey Report on “Made in India - The next big manufacturing export story”, October 2004 estimates manufacturing off shoring to LCCs in 2002 of the order of US \$ 1,400 billion. It points out that while in 2002 the world trade grew at 6%, the manufacturing off shoring to LCC grew at 13%. The main items have been identified as labour intensive (toys, apparel and footwear) and select skill intensive industries (computer hardware and consumer electronics). The Report predicts that the off shoring will increase to US \$ 4,500 billion by 2015 and will include more skill intensive industries (auto components, specialty chemicals and industrial electronics). The four factors responsible for growth of manufacturing off shoring are continued margin pressures in the home markets, emergence of strong suppliers’ base in LCCs, explosive demand growth in LCCs and dismantling of regulatory barriers by the World Trade Organization. The growing off shoring opportunities in the manufacturing sector are critical for growth of Indian economy and India has the potential to exploit these opportunities like the BPO and telecom successes in the service sector.

1.2 The Report forecasts growth of global trade on apparel from US \$ 200 billion in 2002 to US \$ 300 billion in 2015, which is conservative keeping in view the dismantling of Multi Fibre Agreement. Other sectors identified for global off shoring growth in the Report are auto components (\$ 375 billion), electrical and electronic products (\$ 600 billion), specialty chemicals (\$120 billion) by 2015. The Report opines that India can garner manufacturing off shoring of US \$ 300 billion by 2015.

1.3 The report recommends that the Government should:

- Stimulate domestic demand by reducing indirect taxes and import duties as done by China in 1994
- De-bottleneck ports and accelerate power reforms
- Encourage the development of several manufacturing clusters
- Accelerate labour reforms and facilitate skill development

2. Indian Institute of Management, Ahmedabad carried out a ‘National Survey of Competitiveness of Indian Manufacturing Firms’ in 2001. According to the Report, Indian firms need to ponder as to whether they would become competitive if one fine day all the policy impediments are removed by the Government? They need to adopt global standards in work practices, equipments and tools, quality and safety etc., establish contemporary technical and managerial benchmarks and practices. The salient findings are:

- The manufacturing base is diversified though there is little coordination between various levels of a sector’s value chain.

- Manufacturing strategy of most firms is still not addressing fundamental issues of competition, viz., the need to innovate, improve quality, and meet global standards. Product improvements or design changes & significant practice related changes are lagging behind. R&D investments in Indian firms are not at par with global standards barring few firms in the pharmaceuticals and auto sectors. Investment in tools for the use of new technology, conducting basic research internally and rate of acquisition of technology from external sources are not still being viewed as key triggers.
- Efforts to reduce manufacturing costs need to be targeted on reduction in material related costs as well as overheads. The cost of manufacturing constitutes about 70% of sales while physical distribution costs account for about 10% as compared to 55% and 31% respectively in 1997 in USA.
- Supply chain of firms is fragmented, complex and lacks discipline. Coordination across supply chains in most firms is weak.
- Customer focus and customer responsiveness are areas of concern.
- Labour pressure and militancy is on the decline.

3. FICCI's August 2004 Survey on priority issues for NMCC has suggested introduction of flexibility in labour laws and bringing about improvements in infrastructure facilities as the two top most issues. FICCI has suggested the following issues for attention:

FIRM LEVEL	INTRA SECTORAL	INTER SECTORAL
A) Firm Behaviour <ul style="list-style-type: none"> • Management philosophy and outlook • Strategic and operational issues B) Competitiveness of Inputs <ul style="list-style-type: none"> • Inefficiencies in supply markets • Tariff protection C) Business Environment <ul style="list-style-type: none"> • Complex administrative processes 	A) Market Distortions <ul style="list-style-type: none"> • Preferential policies for SSIs • Barriers to free flow of goods across states • Multiple and multi-point taxes B) Difficulty of Business Exit	A) Labour Regulations <ul style="list-style-type: none"> • Termination • Restructuring and closure • Contract Labour B) Export Promotions

4. DIPP's 2002 Report⁵ on 'Reforming Investment Approval and Investment Procedures' identified the following major challenges in implementation and operation of investment projects:

- Plethora of laws and cumbersome procedures.

⁵ Report of the Committee headed by Sh. V. Govindarajan former Secretary, Department of Industrial Policy and Promotion. This Committee was set up to examine extant procedures for investment approvals and implementation of projects and suggest measures to simplify and expedite the same.

- Lack of information on law and procedural requirements.
- Inadequate transparency in administration of approvals.
- Multiple agencies responsible for approval administration.
- Regulatory framework and ground level hassles.
- Handling of approvals and clearances at state / local levels poses greater problems.
- Greater difficulties encountered in
 - Environment and forest clearances
 - Land acquisition
 - Central electricity authority clearance.

4.2 Other recommendations include efficient administration, dismantling of '*Inspector Raj*', investment facilitation, capacity building, greater use of IT and proactive role of States.

5. The World Bank in its paper on '*India: Investment Climate and Manufacturing Industry 2004*' and '*Doing Business in 2005*' notes that India has challenges on account of starting a business (84 days), employment regulations, enforcing contracts (365 days), getting credit, information and closing a business, in conclusion, India is a difficult place to do business.

6. According to CII's August 2002 presentation on '*India 2002 - 2015 - Where can Manufacturing Be*' the areas requiring focus for improvement are energy cost, infrastructure, financing and cost of financing, logistic, tariff rationalization and regulatory hindrances. The cost of power at 8 cents per KWH is about twice compared to competing developing countries besides quality and availability being poor. The credit to GDP ratio is low and the cost of financing is very high. The duty structure is complex with multiple levels of duties imposed by multiple authorities besides duty being very high. The costs as well as time taken for carrying goods to ports and shipment are prohibitive.

7. ACCENTURE Report on '*Making Indian manufacturing globally competitive*' has recommended that the industry needs to adopt professional management, re-engineer core processes to suite the strengths and leverage ICT. It recommends that the Government needs to revamp labour laws, eliminate market distortions, enable quick business exit, reduce tariffs, privatize core sector public enterprises, expedite reforms in transport, power and financial sector, enhance vocational training, simplify administrative processes, reform regulatory law and administration, focus on sectors having comparative advantages and reduce distortions between manufacturing and non-manufacturing activities.