REPORT

OF

WORKING GROUP ON AUTOMOTIVE INDUSTRY

ELEVENTH FIVE YEAR PLAN (2007-2012)

MINISTRY OF HEAVY INDUSTRIES & PUBLIC ENTERPRISES
DEPARTMENT OF HEAVY INDUSTRY
(August, 2006)

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EXECUTIVE SUMMARY

The Indian Automotive Industry after de-licensing in July, 1991 has grown at a spectacular rate of 17% on an average for last few years. The industry has now attained a turn over of Rs. 1,65,000 crores (34 billion USD) and an investment of Rs. 50,000 crores. Over of Rs. 35,000 crores of investment is in pipeline. The industry is providing direct and indirect employment to 1.31 crore people. It is also making a contribution of 17% to the kitty of indirect taxes. The export in automotive sector has grown on an average CAGR of 30% per year for the last five years and has reached a turnover of 8 billion USD The export earnings from this sector are 3.5 billion US $ out of which the share of auto component sector 1.8 billion US$.

2. Even with this rapid growth, the Indian Automotive Industry's contribution in global terms is very low. This is evident from the fact that the passenger car segment has crossed the production figure of 1 million in the year 2005-06. Indias share is about 1.6% of world production as the total number of passenger car being manufactured in the world is 60 million against the installed capacity of 90 million. Similarly, export constitutes approximately 0.3% of global trade.

3. It is a well accepted fact that the automotive industry is a volume driven industry and a certain critical mass is a pre-requisite for attracting the much needed investment in Research and Development and New Product Design and Development. R&D investment is needed for innovations which is the life line for achieving and retaining the competitiveness in the industry. This competitiveness in turn depends on the capacity and the speed of the industry to innovate and upgrade. No nation on its own can make its industries competitive but it is the companies which make the industry competitive. The most important indices of competitiveness is the productivity both of labour and capital.

4. The concept of attaining competitiveness on the basis of cheap and abundant labour, favorable exchange rates, low interest rates and concessional duty structure is becoming outdated and not sustainable. In the light of above, it is felt that a greater emphasis is required on the development of the factors which can ensure competitiveness on a long term basis. The automotive sector with its deep backward (metals- steel, aluminum, copper etc. plastics, paint, glass, electronics, capital equipments, trucking warehousing and logistics) and forward (dealership retails , credit and financing, logistics, advertising, repair and maintenance, petroleum products, gas stations, insurance, service parts) linkages has been recognized and identified at different foras (Development Council of Automobile and Allied Industries, Planning Commission, National Manufacturing Competitiveness Council and Investment Commission) as a sector with a very high potential to increase the share of manufacturing in GDP , exports and employment. The sector is also seen as a multiplier of industrial growth. It helps in attaining two critical goals of the common minimum programme , that of increasing manufacturing output and of providing employment. Although indirectly but it also facilitates the third objective of increasing agricultural productivity through farm mechanization and the needs of agri produce transportation.

5. The country with its rapidly growing middle class (450 million in 2007, NCAER report), market oriented stable economy, availability of trained manpower at competitive cost, fairly well developed credit and financing facilities and local availability of almost all the raw materials at a competitive cost has offered itself as one of the favorite destination for investment to the auto makers. These advantages need to be exploited in a manner to attain the twin objective of ensuring availability of best quality product at lowest cost to the consumers on the one hand and developing and assimilating the latest technology in the industry on the other hand. The Government recognizes its role as a catalyst and facilitator to encourage the companies to move to higher level of competitive performance. The Government wants to create a policy environment to help companies gain competitive advantage. The government policies target to encourage growth, promote domestic competition and stimulate innovation.

6. It is also felt that a general improvement in availability of trained manpower and good infrastructure is required for the sustainable growth of the industry. But these generalized efforts in development of the factors of production rarely produce competitive advantage. Only an advanced, specialized and industry specific initiatives can lead to competitive advantage. Keeping in view the above factors, the Government has launched a unique initiative of NATRIP to provide a specialized facility for Testing, Certification and Homologation to the industry. A similar initiative is required for creating a specialized institution in automotive sector for education, training and development, market analysis and formulation and dissemination of courses in automotive sector through ITIs and ATIs .

7. The issues relating to fiscal incentives to the industry for R & D is under study of Mashelkar Committee and the issues pertaining to duty structures is being examined by the Hoda Committee. The concerns of the industry will be suitably presented in the above fora.

8. It has been noticed that the Auto Industry has grown in clusters of inter-connected companies which are linked by commonalities and complementarities. The major clusters are in and around Manesar in North, Pune in West, Chennai in South , Jamshedpur-Kolkata in East and Indore in Central India. The Department is envisaging in the Eleventh Five Year Plan period to create a National Level Specialized Education and Training Institute for Automotive Sector and to enhance the transportation, communication and export infrastructure facilities through concerned Ministries in and around these clusters. The Government will make attempts to eliminate all the barriers to local competition and organize the relevant Government Department and Educational and Research Institution in and around the clusters.

9. The Government is confident that with the above interventions, the Industry will achieve the target of 75.3 billion US$ in turnover and 8.97 billion US$ of exports by the end of the Eleventh Plan period.

The Present Status- Terms of Reference (TOR)- 1:

The present status (capacity, production, consumption, imports and exports) with special focus on its potential and challenges and to estimate demands for 2007-2012.

1. Introduction:

1.1 The Indian Automotive Industry comprising of the automobile and the auto component sectors has recorded considerable growth following the delicensing and opening up of the sector to FDI in 1993. The unbundling of this industry from restrictive environment has, on the one hand, helped in restructuring, absorbing new technologies, align itself to the global developments and realize its potential with significant increase in industry's contribution to overall industrial growth in the country. The investment in the industry of nearly Rs. 50,000 Crore in 2004-05 is slated to go up to Rs. 85,000 Crore by 2007-08.

2. Indian Automobile Industry: An overview

2.1 Automotive Industry, globally, as well in India, is one of the key sectors of the economy. Due to its deep forward and backward linkages with several key segments of the economy, automotive industry has a strong multiplier effect and acts as one of the drivers of economic growth. The well-developed Indian automotive industry produces a wide variety of vehicles: passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles such as jeeps, scooters, motor-cycles, mopeds, three wheelers, tractors and other agricultural equipments etc. The sector has tremendous potential of providing employment which will increase the present figure of employment in manufacturing sector which is quite low at 12% as compared to the countries like Malaysia (50%); Korea (62%) and China (31%).

2.2 Installed capacity **:** The automobile industry especially over a period of time and particularly after liberalization, has installed a robust capacity. The installed capacity in different segments of automobile industry is as under:

Installed Capacity in Different Segments in nos.

S.No.	Segment	Installed Capacity
1.	Four Wheelers	1,590,000
2.	Two & Three Wheelers	7,950,000
	Grand Total	9,540,000

2.3 The production of all categories of vehicles has grown at a rate of 16% per annum over the last five years. The last 5 years achievements are given below :

Production (in nos.)

Category	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Passenger Car	564052	608851	842437	960505	1045881
Multi Utility Vehicles	105667	114479	146103	249149	263032
Commercial Vehicles	162508	203697	275224	350033	391078
Two Wheelers	4271327	5076221	5624950	6526547	7600801
Three Wheelers	212748	276719	340729	374414	434424
Total	5316302	6279967	7229443	8460648	9735216
Percentage growth	11.70%	18.60%	15.12%	16.80%	15.06%

Source: *SIAM*

A detailed projection of the production is at **Annex-I.**

2.4 Export of Vehicles :

Automotive industry of India is now finding increasing recognition worldwide. While a beginning has been made in exports of vehicles, the potential in this area still remains to be fully tapped. Significantly, during the last two years the export in this sector has grown specifically in export of cars and two / three wheelers. The table below indicates the performance during last six years and first quarter of the current year.

Export (in nos.)

Category	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Passenger Car	22990	50088	70828	126249	160677	170193
Multi Utility Vehicles	4122	3077	1177	3067	5736	5579
Commercial Vehicles	13770	11870	12255	17227	29949	40581
Two Wheelers	111138	104183	179682	264669	366724	513256
Three Wheelers	16263	15462	43366	68138	66801	76885
Total	168283	184680	307308	479350	629887	806494
Percentage		09.74	66.40	55.98	31.40	28.03

Source: *SIAM*

The automobile exports crossed US $ 1 billion mark in 2003-04 and reached US $ 2.28 billion in 2005-06. A year-wise projection is at **Annex-II.**

3. Auto component Industry: An overview:

3.1 Indian auto component industry is quite comprehensive with around 500 firms in the organized sector producing practically all parts and more than 10,000 firms in small unorganized sector, in tierized format . The auto component sector has been one of the fastest growing segments of auto industry, growing by over 28%, in nominal terms between 1995-98. The Industry also sustained a high growth rate and could achieve growth of 24% in 2003, 16% in 2004-05 and 15% in 2005-06 (estimated). The industry, over the years, developed the capability of manufacturing all components required to manufacture vehicles, which is evident from the high levels of indigenization achieved in the vehicle industry as well as the components developed for the completely Indian made vehicles like the Tata Indica, Tata Indigo, Mahindra Scorpio, Bajaj Pulsar and TVS Centra. The component industry has now holistic capability to manufacture the entire range of auto-components e.g. Engine parts, Drive, Transmission Parts, Suspension & Braking Parts, Electricals, Body and Chassis Parts, Equipment etc. The component-wise share of production, as indicated by the ACMA, is Engine parts-31%, Drive and Transmission Parts-19%, Suspension & Braking Parts-12%, Electricals-9%, Body and Chassis Parts-12%, Equipment-10%.

3.2 Over the last few years the Indian Auto Component Industry has created a robust capacity base and world's all major manufacturers have set up their manufacturing unit in the country. The quality of the components produced by the component industry in the country is certified by the fact, that out of the 498 ACMA members, 9 are Deming Prize winners, 4 are JIPM award winners and 1 is Japan Quality Medal winner. A year-wise projections of turn over and production of component Industry is at **Annex-III.**

4. **The Indian Tyre Industry :**

India is one of the few countries which has attained self sufficiency in tyre production barring the production of some types of vehicles tyres, air-craft tyres and snow tyres. India has constantly been exporting the tyres to almost 65 countries. The total installed capacity is 850 lakhs units against which 650 lakhs units were produced in the year 2005-06 of which 620 lakhs units were consumed domestically. In tonnage terms the production in the year 2005-06 was 11.17 lakhs Mt. tons. The industry is expected to grow at an average rate of 7% per annum during Eleventh Five Year Plan period. The total turn over of the tyre industry is Rs. 13,500 crores out of which tyres worth Rs. 2300 cores was exported in the year 2005-06. A projection of category-wise production of tyres is given at **Annex.-IV.**

5. Growth Trends:-

5.1 The turnover of auto component sector has grown from a figure of US $ 1.5 billion to US $ 9.8 billion. Low labor costs, availability of skilled labor and high quality consciousness among Indian vendors have spurred the growth of auto component exports from India. During 2003-2004, the exports of auto-components crossed the magic figure of US $ 1 billion after having posted a healthy growth of 25%. During the year 2004-2005, the exports grew by 40% thereby taking the direct exports of components to a level

of US $ 1.4 billion. As per ACMA, in the year 2005-06 exports grew by 28% and reached the level of US $ 1.8 billion. It is pertinent to mention here that still it is very low against the volume of world trade of 185 billion US $ in auto components.

5.2 More than 60% of the exports of auto-components are to USA and Europe, which constitute high AQL (Accepted Quality Level) countries. Moreover, over the last 5 years, the structure of the customer base in the global markets has also undergone a major change. In the 1990s more than 80% of the exports was to the international aftermarket. In 2005, more than 70% of the exports are to the global OEMs and Tier 1 companies and only 30% is to the aftermarket. This signifies that the Indian component industry has now reached a high degree of maturity in terms of quality and productivity and has also developed capabilities in the area of design and engineering, which are critical requirements for being a part of the global supply chain.

5.3 Indian auto component manufacturing, currently constrained by lack of large capacities, is slowly but steadily working on expanding capacities and automation levels. As the users increasingly become discerning in their buying behavior, new model introduction by the auto manufacturers has become the trend. Greater variety in vehicle is offering challenges to the manufacturing capabilities and economies of scale of component suppliers. Hence the component industry is constantly looking at maintaining lean and efficient manufacturing systems. Having established themselves in the domestic market, tapping opportunities abroad was a natural step for the auto component manufacturers in their growth path. The Indian auto component industry is targeting for a bigger share of the export market and is in the process of ramping up its manufacturing capabilities to meet the capacity and quality requirements. During 2004, the auto component industry increased its investment by 17% while the automation processes in this industry registered a growth of over 40%.

6. Major Challenges:

6.1 Sustaining the growth rate :

There is a potential for much higher growth in the domestic market due to the fact that the current car penetration level in India is just 7 cars per thousand. The increase in purchasing power at the top echelon of about 300 million people in the country, where the per capita income is over US $ 1000, implies that passenger car growth in the domestic market is on the verge of a major and sustained boom. It is expected that the passenger car market which was 1 million in 2003-2004 can easily cross the 3 million mark by 2015. This can lead to an increase in the size of the domestic auto-component market from the current level of US $ 9.8 billion (2005-06) to at least US $ 15 billion by 2015.

6.2 Need for innovation :

The competitiveness in the sector will largely depend on the capacity of the industries to innovate and upgrade. The industry will also benefit if they have strong domestic competition, home based suppliers and demanding local customers. There is no denying of the fact that the factors like labour cost, duties, interest rate and economies of scales

are the most important determinants of competitiveness. But productivity is the prime determinant of the competitiveness and also impacts the national per capita income. The globally successful OEMs and auto makers will ultimately make their base in places which are high on productivity factor and where essential competitive advantages of the enterprise can be created and sustained. It would also involve core products and process technology creation apart from maintaining productive human resource and reward for advanced skills. The OEMs also look for the policies of the state which stimulates innovations in new technologies.

6.3 Enhancement of share in global trade:

The global auto component industry is estimated to be US $ 1.2 trillion in value and is likely to increase to US $ 1.7 trillion by 2015 as per ACMA. Sourcing from low cost countries is likely to increase from US $ 65 billion in 2002 to US $ 375 billion by 2015. Although India's exports are still small (US $ 1.8 Billion in 2005-06 Prov.), it could leverage this off shoring trend and the quality of its supply base to build dominant top two position in auto component exports from low cost countries by 2015. A position in the top two would enable India to achieve export of US $ 20-25 billion by 2015. This would increase India's share of world auto component trade from 0.9 percent in 2005-06 (Prov.) to 2-2.5 percent by 2015, inclusive of domestic consumption. Such a high growth in the Auto component Sector is expected to lead to an additional 750,000 direct jobs in its sector along-with indirect employment of 1.8 million people over the next 10 years. In addition to creating incremental employment of about 2.5 million people in direct and indirect jobs, it is also expected to result in an incremental revenue to the exchequer by US $ 3.8 billion. Investments in this sector would also grow by US $ 15 billion from the current level of US $ 3.1 billion.

7. Recent initiatives of the Government

7.1 In order to give a boost to the growth in this sector, the Government have taken several initiatives. Some of them are as under.

i. The Finance bill 2006 has given a further boost to the Automotive Industry by reduction of the excise duty on the small cars, the reduction in the duty for raw material which are now between 5 to 7.5% as compared to the previous level of 10%, and the thrust on infrastructure development.

ii. The Auto policy, 2002 recognizes the need to provide direction to the growth and development of the automotive industry. As a result of constant persuasion by the Department of Heavy Industry, some of the objectives of the Auto Policy have been achieved. Imposition of excise duty on body building activity of Commercial Vehicles, lower excise duty on the small cars, extension of 150% weighted deduction on R&D expenditure to the automotive sector; increased budgetary allocation for R&D activities in the sector and moving towards a lower duty regime are some of the significant achievements and steps are being taken to further strengthen the capability of the sector.

iii. National Automotive Testing and R&D Infrastructure Project (NATRIP)

The most critical intervention of the Government thus far in the automotive sector has come in the form of an ambitious project on **setting up world-class automotive testing and R&D infrastructure in the country** to deepen manufacturing, encourage localized R&D, boost exports, converge India's unparalleled strengths in IT and electronics with automotive engineering sectors to firmly place India in USD 6 trillion global automotive business. NATRIP aims at facilitating introduction of world-class automotive safety, emission and performance standards in India as also ensure seamless integration of Indian automotive industry with the global industry. The project will deepen manufacturing, enhance employment, encourage localized R&D, boost exports, converge India's unparalleled strengths in IT and electronics with automotive engineering sectors to firmly place India on the global automotive map. The project aims at addressing one of the most critical handicaps in the overall growth of automotive industry today, i.e. major shortfall of testing and pre-competitive common R&D infrastructure. National Automotive Testing and R&D Infrastructure Project envisages setting up of the following facilities:-

(i) A full-fledged testing and homologation center within the northern hub of automotive industry at Manesar in the State of Haryana;

(ii) A full-fledged testing and homologation center within the southern hub of automotive industry at a location near Chennai in the State of Tamil Nadu;

(iii) Up-gradation of existing testing and homologation facilities at Automotive Research Association of India (ARAI), Pune and at Vehicle Research and Development Establishment (VRDE), Ahmednagar;

(iv) World-class proving grounds or testing tracks on around 4,000 acres of land in Madhya Pradesh;

(v) National Center for Testing of Tractors and Off-Road Vehicles together with national facility for accident data analysis and specialized driving training at Rae Bareilly in the State of Uttar Pradesh; *and*

(vi) National Specialized Hill Area Driving Training Center as also Regional In-Use vehicle management Center at Dholchora (Silchar) in the State of Assam.

Expected Benefits

NATRIP facilities will be state of the art and will be globally benchmarked. These institutions will have significant global marketing focus to attract overseas automotive testing, homologation, product validation and development work. Apart from ensuring availability of world class infrastructure to test modern vehicles and components and promoting larger value addition in automotive manufacturing, NATRIP is also slated to make a significant contribution to improving the road safety scenario in the country. India, accounting for nearly 10% of global road fatalities, loses more than 80,000 human lives every year in road accidents. These accidents cost the national economy in excess of Rs. 55,000 crore annually as per an estimate by the Planning Commission. NATRIP is aimed to ensure better safety and performance profile of vehicles. Its cost would be more than fully recovered if it helps to reduce road accidents even by a fraction. NATRIP is a path-breaking initiative of the Government and is slated to change the automotive landscape of India.

iv. Constitution of Task Force :

In order to realize the growth potential of Indian automotive Industry in both domestic and global market and to optimize its contribution to the national economy, the Development Council for Automobile and Allied Industries has decided to draw up a Ten year Mission Plan under the title "Automotive Mission Plan" for the development of the Indian Automotive Sector into a global hub. The AMP will incorporate sectoral vision and growth strategies for the individual segments of the automotive industry, specific plans and programs to achieve the vision and growth for the respective segments, plans and programs to ensure consistent availability of quality talent in the country, collaborative strategies and programs to institutionalize focused research efforts and key strategies to strengthen efforts of Indian automotive manufacturers. The Development Council has constituted a Task Force with a view to examine the current status and challenges and to conceptualize and document the AMP. The Task Force has identified five thrust areas namely (i) Demand Creation Brand Building and Infrastructure (ii) Export and International Business (iii) Competitiveness in Manufacturing and Technology (iv) Environment and Safety and (v) Human Resource Development. Five working groups under the chairmanship of eminent industrialists / professional were constituted for each thrust area for making specific recommendations. The working groups have recommended area of intervention at two levels namely the Industry and the Government which will enable the industry to attain the vision articulated in the Auto Policy, 2002. The recommendations of the five working groups in the form of draft report have been made. The recommendations of the Task Force has been taken up for inter-Ministerial consultation and will be put before the Development Council for Automobile and Allied Industries.

Projections of Additional Capacity and Production- Terms of Reference(TOR)- 2

The likely capacity and production of the automotive sector for the period 2007-12, with an indication of the perspective for 10 to 15 years.

It is expected that the automotive industry will grow quite rapidly in the next 10 years and is expected to reach production volumes of almost 3 million passenger cars and more than 30 million two wheelers.

Projection for Automobile Production (in units)

Year	*Passenger Vehicles*	*Commercial Vehicles*	*Three Wheelers*	*Two Wheelers*	*Tractors*
2006 - 07	1505149	401767	475541	8629809	317850
2007 - 08	1668437	431596	536508	9931260	346586
2008 - 09	1850909	463743	605913	11459643	378023
2009 - 10	2055040	498398	685030	13255455	412429
2010 - 11	2283659	535765	775343	15366462	450100
2011 - 12	2539997	576064	878583	17849003	491365

Source: SIAM

Forecasted Capacities (in numbers)

Year	*Passenger Vehicles*	*Commercial Vehicles*	*Three Wheelers*	*Two Wheelers*	*Tractors*
2006 - 07	1881436	502209	594426	10787261	397313
2007 - 08	2085546	539495	670635	12414075	433233
2008 - 09	2313636	579679	757391	14324554	472529
2009 - 10	2568800	622998	856288	16569319	515536
2010 - 11	2854574	669706	969179	19208078	562625
2011 - 12	3174996	720080	1098229	22311254	614206

Source: SIAM

The basis of projections is based on the inputs from the experts and the studies conducted by iMACs. The study has forecasting a CAGRs for different segment of vehicles as follows:-

Passenger cars 10%, MUVs 8%, M&HCV 6%, LCV 9%, Scooters 3%, Motorcycles 18.0%, Mopeds 7.5%, three wheelers 11% and Tractors 8.5%. The projections of auto component industry is based on the projections of vehicle industry made by SIAM.

Challenges to growth - Terms of Reference (TOR)- 3

Areas of concern inhibiting the growth of the industry and those that impact on the competitiveness of the industry.

In present scenario world over, it is an accepted view that competitiveness is no longer totally dependent on variables like availability of cheap labour and materials, low interest rates and fiscal incentives. The sustained competitiveness in industry can come only through improvement in productivity both of labour as well as capital. This calls for continuous efforts for innovation by the companies. There is also a need to improve the cost competitiveness in the auto sector. Global auto companies are increasingly sourcing components and vehicles from low cost countries. Outsourcing is also being extended to services like engineering design and other business processes. The globally competitive OEMs (Original Equipment Manufacturers) and auto makers will make their base in places which are high on productivity factor and low on costs, so that their competitive advantage can be sustained. If India has to take advantage of this, its cost competitiveness has to improve. The industry has identified certain factors which are inhibiting the growth of automotive sector.

1. Availability – Fuel Price, Fuel quality and Alternative Fuel

Fuel Price

A rapidly growing economy demands more supply of energy. As the UN Agenda 21 states "*Transportation is the major driving force for the growing demand for energy. It is the largest end-user for energy in developed countries, and the fastest growing one in developing countries*". Crude oil prices have been increasing and may continue so for a long time due to the speculation ("*fear premium*") on continuing geopolitical instability. So there is an urgent need to think of an alternate fuel policy. In the above back drop the development of 'alternative fuel' has gained greater importance. The Ministry of Non Conventional Energy Sources is working on the usage of Hydrogen as a fuel. The work in this area need to be strengthened and expedited. The policies which promotes the commercial production, distribution and usage of such alternative fuel and the automobiles using these alternative fuel need to be put in place. Besides the emphasis on commercialization of the alternative fuel, ensuring the availability of the fuel meeting the standards of Bharat Stage III and IV in time as envisaged in the Auto Fuel Policy is equally important. It will be of great help to the industry if the availability of Euro IV fuel can be ensured across the country prior to the implementation of the emission norms. This is important as there is a drastic change in the emission requirements of the above two standards and vehicles designed for Bharat Stage IV will find it difficult to run on fuel suitable for BS III norms. The Ministry of Petroleum and Natural Gas has indicated that as per the roadmap provided in the Auto Fuel Policy, progressive fuel upgradation to Euro-IV equivalent and Bharat Stage-III are being planned from April, 2010 onwards, to be implemented based on the source-apportionment studies currently under way. The present Auto Fuel Policy gives a road map till Euro IV stage and 2010, It is felt that the Auto Fuel Policy beyond 2010 be also drawn now.

2. Affordability – Taxation and related Issues

The industry feels an immediate need to bring down total tax to reduce cost of ownership; to make input prices more competitive; to incentivise innovation for low cost products - that are aimed at consumers at the lower income end and to eliminate the incidence of embedded taxes/duties

Internal taxes

Currently the taxes are levied at the city level (octroi), state level (sales tax, registration) and the central level (excise). Depending on the location of manufacturing and the suppliers, these taxes total to a substantive figure, even though excise duty on vehicles have reduced from a high of 66% in the early 90s to 25% and 16% now. The following table provides an idea of the amount of tax element today in a vehicle. It shows that tax amounts to 36-40% of the cost of a vehicle on an average. Cases where octroi is levied would increase it to 40-45%. Clearly this is a very large figure and hampers the growth of the industry.

Taxes & Local levies on sale of a Vehicle		***Car/MUV***	***CV/2W***
Material cost+conversion cost+OHs+margin		87.8	87.8
Taxes paid on inputs not set off		12.2	12.2
Assessable Value	A	100.0	100.0
Excise Duty 16% on (A)	B	16.0	16.0
Special Excise Duty 8% on (A)	C	8.0	0.0
N C C D @ 1%	D	1.0	1.0
Automobile Cess @0.125%	E	0.1	0.1
TOTAL EXCISE DUTY (B+C+D+E)	F	25.1	17.1
Education cess @ 2% on (F)	G	0.5	0.3
SUB-TOTAL		125.6	117.5
CST @ 4%		2.5	2.3
Transportation cost			
Dealer Margin			
SUB TOTAL		128.1	119.8
LST @ 12.5%		16.0	15.0
SUB-TOTAL		144.2	134.8
Registration @ 4% assumed avge		5.8	5.4
COST TO CUSTOMER : -		149.9	140.2
Total Tax Element in vehicles		62.1	52.4
% of tax in vehicle		41%	37%

Note: The embedded tax element is as per an ICRA Advisory Services study and the SIAM committee on taxation. The above figures are representative on the whole. Some companies would be facing a higher tax element due to the addition of octroi in Maharashtra and Gujarat and depending on the mix of their input purchases from within the state and outside the state.

The move towards VAT has helped in reducing the cascading impact of state taxes. However, even if VAT were to be implemented uniformly by all states (which is not yet

the case) there would still be elements of unabsorbed taxes which impact manufacturing competitiveness. These cascading taxes also impact export competitiveness since the duty drawback or exemption schemes do not account for all of the taxes that add up in manufacturing automobiles.

The draft National Manufacturing Strategy also recommends that there should be an all India combined Goods and Service Tax (GST), with service sector taxation integrated into the VAT framework instead of being a tax on turnover. This should be accompanied by a withdrawal of all other taxes like central excise, central sales tax, octroi, State-level sales tax, entry tax, stamp duties, transportation taxes and other similar levies. A combined goods and service tax which is fully VATable replacing all other taxes except the registration tax to simplify administration and reducing the tax incidence on a vehicle will help the industry. This will also remove a major factor of locational competitive disadvantage based on differing state and city level taxes it is perhaps time now to consider a uniform road tax across the country.

3. *Accessibility – Procedural delays, Transportation and Infrastructural bottlenecks*

Rationalisation of documentation for interstate and inter-city movement of vehicles and goods; Creation of simple, comprehensive and non-overlapping system of procedures and regulations would improve the efficiency and productivity of the transportation sector and thus also create demand for automobiles.

Regulations

One of the reasons that is used to explain our country's poor FDI performance is the high degree of administrative procedures and clearances. It is not the clearances themselves which are the issue, but the time and effort taken to get them. Of course some of the clearances overlap and are now outdated. There is a need to streamline its regulations to do away with unnecessary regulations and combine and merge others to simplify them.

Internal trade barriers –movement restrictions, octroi, checking, etc

Even though we are a single country, there are a lot of restrictions on inter-city or inter state movement of goods. Apart from the cost of octroi there is another element of cost that is incurred due to the long queue at check posts which delay shipments and increase logistics costs. The same is the case when goods cross state borders.

Infrastructure Bottlenecks

Continued investment in infrastructure is essential. Infrastructure should keep pace with growth in the trade. The delays in road and rail network need to be immediately arrested. *Power and fuel* account for about 6% of manufacturing cost and power cost in India is quite high. Similarly capacity addition in roads has lagged behind traffic growth. Last mile road connectivity is a major bottleneck and needs to be addressed on priority at all ports, especially for, Chennai, Mumbai and JNPT.

Analysis of cost structure of Indian automotive sector and that of Malaysia, Thailand and China reveal that deficiencies in logistics infrastructure contributes to 1.1% to 2% difference in the cost structure.

Increase in cost (%) attributable to logistics			
	Cars	CVs	2Wheelers
Thailand	1.2	1.1	1.1
Malaysia	1.1	1.0	1.1
China	2.1	2.2	1.2
Source: iMaCS			

Infrastructure needs to be improved to facilitate a faster growth of the automotive sector both domestically and internationally.

The incremental increase in requirement of power over the period of Eleventh Five Year Plan has been projected to be of 12000 MW. The industry is experiencing a serious infrastructure bottleneck in export. The vehicle export has reached a figure of 8.06 lakhs in 2005-06, India is expected to emerge as a leading vehicle exporting nation by attaining an export figure of 1 million vehicle by the year 2015. It equals to the number of passenger cars being manufactured today. The Chennai and Mumbai Port handles bulk of the vehicle export. The problem is not only lack of space for parking, setting up of workshops to undertake repair of the damage due to transportation from the manufacturing centre to the port and longer turn around time but the problem is also of poor port connectivity. Development of infrastructure facilities for export of automobile at Mumbai, Chennai and Kolkata ports is the urgent need for realizing the export potential of the industry. There is also a need to develop the inland container facilities near Gurgaon, Indore and other automotive hubs. These facilities should also have high speed connectivity with the ports.

Besides the development of above physical infrastructures, the industries need for raw material like steel of different qualities will also go upto 44.31 lakhs Mt. tons in 2011-12 from the requirement of 28.97 lakhs tons in 2007-08. A year-wise break up of different qualities of steel requirement for Eleventh Five Year Plan period is at **Annex-V.**

4. Emission Norms

As is the trend worldwide, Indian automobile industry too is shaped by environmental and safety imperatives. Indian safety standards for auto components have been in existence since the late 1960s and were based on EEC/ISODIN/BSAU prevalent at that time. The Central Motor Vehicle Rules came into existence in 1989 whereby serious enforcement of regulations came into force.

Post 2000 which has marked the start of the Safety decade, Indian regulations have been based on ECE and since 2000 concerted efforts are underway to technically align standards with ECE. However, there is a need for long term roadmap, which is consistent with local requirement.

It is felt that the industry should attain complete harmonization of emission and safety norms as per the ECE regulations by 2015.

Accidents –Safety

Safety – both vehicle safety and pedestrian safety are becoming an issue. Every year hundreds of thousand people die on account of road accidents and many more get seriously injured and permanently disabled. The social and economic implications of such safety issues can no longer be ignored and there is an urgent need to initiate specific measures to look into this aspect.

National Road Safety Board - There is a need for an Organisation to act as a lead agency for road safety both at the national and state level.

Computerization of RTOs -

The current registration process needs to be computerized in order to tackle safety related issues along with increasing traffic. It would enable recall of exact and all vehicles by the manufactures in an event of product problem especially pertaining to safety of the vehicle owners as well and other road users. The computerization should be extended to the licencing process also.

5. Assets –Human and capital

Human

The most critical enabler for the huge growth envisaged for the Indian Automobile Industry shall be adequate availability of trained manpower. Based on the current pattern of employment it is estimated that automotive industry would require huge numbers of trained personnel to work at various levels. It is pertinent to mention here that only specialized and industry specific inputs can improve the competitiveness of the industry. So, it is felt that a National Level, Automotive Institute should be created to meet the requirement of education and training, market analysis and projections and for formulating and supervising the running of various courses in automotive sector through ITIs and ATIs. This has been the felt need of the industry identified by Investment Commission as well.

Capital

The decline in interest rate gave an impetus to the growth of the automotive industry, the current rising trend is a cause of concern for the industry. It is likely to dampen the demand and push up the cost of manufacturers.

6.* Agreements – *FTAs/RTAs and WTO issues

The automotive industry promises significant *Investment and employment opportunities*. But that would happen only if there's some restraint on the level of import from the

competitors. Unrestricted Import of Vehicles/Components will have adverse impact on GDP and employment. India is negotiating FTAs/PTAs with several countries. While Industry is positive about SAFTA and PTAs like Chile, GCC, etc, and wants market access in neighbouring countries, it has serious reservations on FTAs with Thailand, BIMSTEC, ASEAN, China, Korea etc. The main reasons are:

- Significant competitive disadvantages.
- Will lead to market distortion
- SIAM/ACMA have identified 76 items for negative list out of more than 165 items manufactured by members.
- UNCTAD has also identified these products as sensitive

There is a need to keep these 76 items in the negative list for FTAs with Thailand, BIMSTEC, ASEAN, China, Korea, etc. Also, there are serious reservations about Preferential Rules of Origin. The main objective of Rules of Origin is to prevent Trade Deflection / Pass Through. The issues are:- Local Content / Value addition ; Substantial Transformation / Change in Tariff Heading (CTH) and Certification. Automotive Sector Needs Separate Treatment and following suggestions will help the industry :

- Change of Custom tariff classification at the 4 digit level (from import to export) PLUS
- Value Addition (Transaction Value Build Down method) Minimum at 50%, (including value of sub-component import of parent assemblies) PLUS
- Non qualifying processes: Packaging, Re-packaging Polishing, finishing, mere assembly or disassembly, Inspection, Internal Transport, freight, anti-rust applications, oiling etc or a combination of the above.

Future plans and *Programmes - Terms of Reference (TOR)- 4*

Specific Plans and Programmes, including fiscal and other policy prescriptions to enable the industry to achieve its growth potential.

Fiscal Prescriptions :

The fiscal measures are important tools for giving a direction to the industry in particular and the economy in general. But the Government feels that the fiscal measures have to be considered in the context of the Budget, based on overall revenue and expenditure needs and based on national priorities as determined by Government. Thus, exact duty structure and concessions for a particular industry should not be made part of policy making by the individual Ministries. Regarding the situation of inverted duty structure, the matter is being looked into by the Hoda Committee where the concern of Industry will be presented adequately.

The Industry has identified certain measures as suggestions for accelerating the growth of the industry.

Internal taxes

The draft National Manufacturing Strategy recommendation of combined Goods and Service Tax (GST), with service sector taxation integrated into the VAT framework instead of being a tax on turnover should be implemented. This should be accompanied by a withdrawal of all other taxes like central excise, central sales tax, octroi, State-level sales tax, entry tax, stamp duties, transportation taxes and other similar levies. Octroi had been levied across many states earlier and is now levied in only three states (and in some of the large cities of these states). It need to be abolished to attain competitiveness in manufacturing.

The Auto Policy of 2002 lays down the objective of making India a hub for the manufacture of small and affordable cars, tractors, MUVs and two wheelers. A thrust to production can be given by providing fiscal incentives through lowering Excise Duty and VAT rate on the manufacture of small cars, MUV and two-wheelers. Such an incentive will result in lowering of the prices of these vehicles and increase in the demand leading to higher and more economic volumes for the industry.

CVD –Anomaly: *Effective levy of a lower CVD on imports than relevant excise duty on a locally manufactured product*

CVD is levied on an imported product so that it attracts the same kind of tax (excise duty) that would be levied on a locally manufactured product in order to ensure that there is a common tax treatment on both from the excise side. However, in the case of vehicles the reality works out differently.

The following table illustrates the case.

Table on Effective CVD versus excise duty:

Locally manufactured		*Imported CBU*	
Cost of Manufacturing	75	Landed Cost	75
Post manufacturing exps	25	Excise, %	25.13%
Pre-Excise price	100	Excise Value	18.8
Excise, %	25.13%	Post manufacturing exps	25
Excise Value	25.1		
Post Tax Price	125.1	Post Tax Price	118.8
Difference	6.3		

Note: Post manufacturing expenses include selling and distribution costs (advertising, personnel, incentives, warranty, branding, and transportation) as well as margins

As can be seen from the table, the effective CVD on an imported Completely built up vehicle (CBU) is 18.8% against the 25.13% effective excise duty on a similar locally manufactured vehicle if the selling and distribution costs are assumed at the level shown (which will vary depending on the segment and company).

Input Prices

Input prices play a key role in the economics of operation and ensuring competitive input prices will help the industry in facing the competition successfully. Incidence of taxes and levies also influences cost competitiveness and therefore embedded taxes/levies that do not get offset under VAT need to be eliminated. Also the labour laws need to be reformulated to enhance competitiveness.

Other Fiscal Incentives

Fiscal incentives in the form of zero taxes/levies on technology transfers (products, features, alternative fuels) would aid Industry in its endeavor towards market oriented products. R&D being a highly capital intensive exercise it would be necessary to develop shareable resources for product testing and validation like NATRIP. For promoting Product design and development, which is a highly involved activity, augmentation of weighted deduction under Section 35(2AB) of Income Tax Act to 200%(currently 150%) and extending this up to 10 years may be considered.

For “Made in India” products, it can be thought of providing an Excise Duty concession for vehicles that have 90% or higher local content. This can be a form of incentive for “Made in India” products vis-à-vis “assembled in India” products. The development of Indica and Scorpio has instilled a new confidence in local manufacturers , to give it a

further fillip and to attract the investment for designing and R & D for product development in India also calls for incentivizing the efforts in that direction.

Tax Exemption on R&D Consultancy Services - The process of new product introduction in the automotive industry entails joint work by many specialized institutions and organizations for the development of the new technology, designs and the entire process of commercializing of the product including testing and validation. Business houses normally employ such institutions on Consultancy projects for which a fee is paid. Government should exempt the Income Tax on such R&D Consultancy services and consider allocating grants for local R&D Institutions. This would specially benefit institutions like IITs, IISc, BITS, CSIR Labs as well as international institutions specialized in their own field of technology.

This shall encourage not only the Indian companies to design and develop new automotive products in India, but would also encourage MNCs to shift their design and development to India, thereby making India as the most preferred destination for global R&D in the automotive industry. . These subjects are under study of Mashelkar Committee and the issues pertaining to the industry will be submitted before the Committee.

Other policies

1. Fleet Modernization Programme

The economic development has also brought with it the unavoidable problems of urbanisation – and as people go about their lives at high speeds, air quality in general and emissions from vehicles in particular has become an issue of primary concern.
Measures that are essential for reducing the vehicular pollution load are:

- Mandatory Inspection & Certification (I&C) for all types of vehicles to improve the health and general condition of in-use vehicles,
- Putting in place an incentive scheme by OEMs for Voluntary Retirement of vehicle and
- Retirement of vehicles which cannot get the road worthiness certificate.

2. Export Incentives

The two schemes recently running to incentivise exports are – Focus market Scheme and Target Plus Scheme in their present form does not benefit much the automotive sector. The industry feels that due to high incidence of embedded taxes and duties already faces an uncompetitive cost structure vis-a-vis its competitors (like China).

Automobile Export Trends - Terms of Reference (TOR)- 5

An export plan giving export targets for the automobile as well as the components industry (year-wise for the period 2007-12) for each sector of the industry considering the development of indigenous industry and world wide market situation. The Working group should suggest measures required to achieve the export targets by the industry.

Automobile Exports Trends (Projected)

Category	2007-08	2008-09	2009-10	2010-11	2011-12
CVs	39862	43848	48233	53056	64198
PVs	273067	322083	379900	448097	528539
Two Wheelers	643964	779014	943502	1143963	1388398
Three Wheelers	115432	138519	166222	199467	239360

Source: SIAM

Projected Auto Component Exports

	(in million US $)
2007-08	3075
2008-09	4019
2009-10	5253
2010-11	6865
2011-12	8973

Source: ACMA

Some of the steps necessary to achieve the export targets are given below:

1. Incentivising globalization and exports.

1.1 Setting up Special Auto Component Parks (SAPs) and Greenfield SAPs.

1.2 Creation of Virtual SEZs.

To ensure level playing field to current assets, the government may consider to extend SEZ like benefits to new, export seeking investments within the sector (minimum additional investments of Rs. 100 crore). Specifically, these units should have the ability to buy power directly from a generator; simplified administrative procedures and flexibility in labour laws for new investments of more than Rs. 100 crore.

1.3 Offsetting the India Specific Disadvantage through a balancing tariff rate.

A number of studies conducted by professional agencies have revealed that the Indian industry faces an India-Footprint disadvantage of between 18%-20%, especially with our key competitors like ASEAN countries and China though the Indian Industry is competitive at the factory level. These external disadvantage needs to be addressed in the following ways:-

(i) By maintaining three-tier tariff structure for raw materials, intermediate products and finished products. In the short term, applying tariffs that would counterbalance this disadvantage. In practical terms the peak tariffs not to be reduced from the current rate of 15% for the time being, till these disadvantages are not addressed.

(ii) By accelerating the pace of internal reforms by bringing in full country-wide VAT, and at the same time withdrawing all other central and state taxes and levies on manufacturing.

(iii) BY Implementing a comprehensive GST and reducing the tariffs on raw material before further reduction in the automotive tariffs are done.

2 Research & Development and Creation of Intellectual Property Rights

The only WTO compatible area where the Government can provide non-actionable subsidies is in the area of R&D. Today, the bulk of the Intellectual Property in the automotive industry rests with the triad countries – USA, Europe and Japan. India can aspire to become a major automotive power only if Indian companies can create their own IPR in the automotive industry through Design and R&D.

A. Weighted Deduction U/S 35 (2AB) For Expenditure incurred on R&D. The automobile industry believes that this scheme should continue on a long term basis.

B. Excise Duty Concession for “made in India” products

C. Tax Exemption on R&D Consultancy Services

The process of new product introduction in the automotive industry entails joint work by many specialized institutions and organizations for the development of the new technology, designs and the entire process of commercializing of the product including testing and validation.

Harmonisation of Norms - Terms of Reference (TOR)- 6

A plan for gradual achievement of international pollution standards/norms by domestic vehicle manufacturers.

Emission norms came into force with the Idle emission norms in 1984. Mass emission norms were introduced in 1991 for petrol vehicles and in 1992 for diesel vehicles. These norms have been progressively made stringent. Post 2000 which has marked the start of the Safety decade, Indian regulations have been based on ECE and since 2000 concerted efforts are underway to technically align standards with ECE. There is a roadmap for safety standard for 2005 and beyond 2007. One of the deterrents to continuous alignment could be the lack of R&D infrastructure. Environment concerns led to India narrowing the gap with Euro norms at a rapid pace and currently BS-II or Euro II equivalent norms are in force throughout the country. Two Wheelers which play the unique role of family vehicles in India comply with stringent emission norms while at the same time satisfactorily meeting the Indian customer demand for fuel efficiency. Idle emission norms applicable to in-use vehicles have also been tightened. The need is for an appropriate fleet modernization programme and an in-use vehicle management policy.

Future directions in emission standards

The Auto Fuel Policy has recommended introduction of Euro IV equivalent emission norms in 2010 in 11 cities and Euro III equivalent in rest of the country. Industry can comply with this roadmap subject to the availability of the required fuel in all retail outlets at least one year ahead of the introduction of emission norms.

The industry should gear up for complete alignment with ECE regulations on emission and safety by 2015.

Indian Automotive Industry-vision- Terms of Reference(TOR)- 7

A National Vision/Mission for the Indian Automotive Industry and evolve specific strategies to achieve the National Vision/Mission.

Vision

It is envisaged that by 2012, the opportunity landscape for the Indian auto industry would encompass manufacture of vehicles and components for domestic sales, manufacture for exports (both vehicles and components) and export of services in areas such as design, engineering, and back office operations. It is estimated that the total turnover of the automotive industry in India would be of the order of US$ 75.3 billion in 2012 (a substantial increase from the size of US$ 34 billion in 2005-06).

In real terms, India would continue to enjoy its eminent position of being the largest tractor and three wheeler manufacturer in the world and the world's second largest two wheeler manufacturer. By 2012, India would emerge as the world's eighth/ninth largest car producer (as compared to the eleventh largest currently) and retain 4th largest position in world truck manufacturing sector. Further, by the end of decade, the automotive sector is likely to double its contribution to the country's GDP from current levels of 5% to 10%.

Attaining vision would call for an incremental investment of the order of US$ 20-25 billion to come into India over the next plan period. Bulk of this investment anticipated, will come from expansion of capacities by existing manufacturers operating in India, Joint Venture between existing manufacturers with other global OEMs for new product and remaining from global multinational corporations (MNCs) seeking to make India their manufacturing base. Competition for attracting investments in India would come from countries such as China and Thailand.

Currently automotive industry employs 200,000 persons in vehicle manufacturing, 250,000 in component companies and 10 million at different levels of value chain – both through backward and forward linkages. The expected growth in the investments and output of India's automotive sector during the next 5 years will create further employment opportunities in the country. Additional 15 million jobs are likely to be created by way of both direct and indirect employment in automotive companies and in other parts of the vehicle value chain such as servicing, repairs, sales and distribution chains.

The future challenges for the Indian automobile industry in achieving the National Vision would primarily consist of developing a supply base in terms of technical and human capabilities, achieving economies of scale and lowering manufacturing costs, overcoming infrastructural bottlenecks, stimulating domestic demand and exploiting export and international business opportunities.

R&D and Technology Development- Terms of Reference(TOR)-8

Actionable recommendations to encourage technology development including R&D, Design Engineering, Quality, Skill Building and linkages with frontier technology institutions in the country and abroad by the automotive industry with special emphasis on the auto component sector.

Research & Development and Creation of Intellectual Property Rights

The only WTO compatible area where the Government can provide non-actionable subsidies is in the area of R&D. Today, the bulk of the Intellectual Property in the automotive industry rests with the trio of – USA, Europe and Japan. India can aspire to become a major automotive power only if Indian companies can create their own IPR in the automotive industry through Design and R&D. The targeting of fiscal incentives for promoting R&D is being looked after by the Mashelkar Committee.

Investment Plan - Terms of Reference (TOR)- 9

The year wise investment required to be made in the public/private sectors during the period 2007-12, keeping in view funds required for up gradation of technologies for achieving international competitiveness, in-house R&D and new products required for meeting the demand-supply gap in the long run.

The Automotive Industry offers huge growth potential in terms of sales volume (including exports) and also immense employment opportunities. The employment opportunities would be in production for both skilled and unskilled labourers. This would happen only if the sector gets adequate attention in terms of investment. It is estimated that the automotive sector requires an incremental investment of Rs 11,000 -12,000 crores per annum to realise its full growth potential. Out of this the automobile sector requires an incremental investment of Rs 9,000-10,000 crores and the auto component sector requires Rs 2000 crore.

Efforts for SMEs - Terms of Reference (TOR)- 10

Provide special emphasis to the development of SMEs in the auto component sector to enable them to emerge as globally competitive business entities.

The component industry is undergoing a major structural change and is now becoming a Tiered Industry. The Tier 1 is the complete system supplier, followed by the lower Tier companies that supply sub-systems and single parts. The industry has a very large number of SMEs. In order to promote the development of SMEs, it is crucial to effectively integrate them into the supply chain as Tier 2 and 3 suppliers. Some of the specific measures suggested are as follows:

- the cascading impact of the taxes need to be removed in order to make these units competitive.
- Most segments in the automotive industry are highly capital intensive and promises new employment opportunities. Since most auto-component manufacturing companies are SMEs, it is imperative to create a Modernisation and technology upgradation fund to facilitate develoment of world-class, state-of-the-art production facilities. The funds could be provided by the Government. The finance could be made available through Commercial Banks at interest rates of Libor +1 or Libor +1.5 (about 5% maximum).
- Priority Sector lending could be extended to the auto component sector.
- R&D equipment and equipment required by the auto-component industry for first-time development of new items e.g. tooling, dies, software etc could be Customs Duty exempted.

Building 'Made in India' Brand- Terms of Reference (TOR)- 11

Specific plans for building the 'Made in India' brand for the Indian automobile and auto components in the world markets.

Industry should align products, segments and geographies carefully. It should create a strong presence in chosen locations and promote the product brand which promote brand 'India,' like Toyota and Sony of Japan, Hyundai, Samsung of Korea. It would also be important that companies plan to grow and have increasing localized operations.

Government can partner Industry in brand building efforts in select countries. It could also incentivise appropriately M&A by Indian companies abroad for manufacturing operations. This is also necessary to reduce the risk to domestic manufacturing. It is desirable that sum funds should be earmarked for encouraging brand building. Building the *"Made in India"* brand would require the setting up of a dedicated team comprising Government and Industry representatives to market the capabilities of the country's auto sector. The media could also be used for road shows, investors meets, publications and dissemination of information for investors (e.g. project profile published by Thailand's Board of Investment). Some successful State governments like Andhra Pradesh offers good case studies on pro-activeness of Governments to market their States as investment destinations. The IT/ ITES industry could serve as good model as it enjoys "top of mind" recall for IT services and BPO.

The Industry Associations like SIAM and ACMA have a key role to play in brand building for the Indian automotive industry. This is already being done by the Associations through organizing Delegations, participation in International Auto Shows, setting up Buyer-Seller Meets, organizing Private exhibitions for large customers etc. The industry Associations need to continue these efforts and also design new services and initiatives to meet the changing needs of the industry in terms of creating a global brand for the industry. Some specific suggestions in this direction are as follows:

1. ' Made in India' Brand needs promotion through active participation in International Auto Shows by specialized missions for identified niche markets and through buyer – seller meetings. Industry and Government need to work hand in hand in this regard.

OPERATIONAL RECOMMENDATIONS

(i) In order to meet the growing scarcity of trained human resources, the group recommends setting up of a National level Automotive Institute which will run training courses in automobile sector and formulate courses and modules for training in Automobile sector to be imparted by various ITIs and ATIs. The Institute can also work as a repository of data and knowledge for analyzing business trends within the country and globally and making it available to the industry in time. The Institute can be resource base for the Department in formulating policies in the auto sector.

(ii) Creation of centers for automotive manufacturing excellence in *four IITs.*

(iii) Adoption of ITIs and ATIs by OEMs, Tier I component manufacturers and Management Committee.

(iv) Opening up Auto Design Centre at NID, Ahmedabad.

(v) Development of Technical Design Data Centre as part of Centre of Excellence in NATRIP.

(vi) Supporting IT integration in manufacturing and development of infotronics through project financing by Government .

(vii) To identify the bottlenecks in existing four clusters- Manesar in North, Pune in West, Chennai in South and Jamshedpur-Kolkata in East. A comprehensive plan of action need to be evolved for improving and exploiting the advantages of commonalities and complementarities of the industries in the clusters. An attempt should be made to open relevant government outfits around clusters, to attract foreign investment around clusters and to focus export promotion from the clusters and to establish local University, Research Institutes near to the clusters.

(viii) Close collaboration of Industry with research institutions and academic institutions like CSIR, IIT, etc. needed for the development of appropriate technology and creation of IPR regime to meet more stringent regulations as well as to develop relevant machine tools and equipment for improving manufacturing processes and quality of the vehicles and components produced locally.

(ix) Incentivizing to promote designing and R & D for new product development in India.

(x) Sensitizing the concerned Ministries for adequate development of infrastructure in power, transport and port facilities and reforms in Labour Laws to commensurate with the requirement of the Industry.

(xi) Ministry of Petroleum and Natural Gas to ensure availability of fuel as committed in Auto Fuel Policy and also to prepare a Road Map for Fuel Policy beyond 2010.

(xii) Guiding the industry for attaining complete alignment with ECE norms by 2015.

(xiii) Ministry of Road, Transport and Highways to introduce an Inspection and Maintenance Regime.

(xiv) To take up with Machine Tool Manufacturers for ensuring availability of good quality machine tools required in Auto sector indigenously.

(xv) A Group should be formed comprising of Industry representatives and experts to study the existing FTAs, RTAs and PTAs. The Group will study the impacts of the existing and Trade Agreements in pipeline and to make suitable recommendations to the Ministry.

(xvi) Creation of virtual SEZ for auto component industry and Auto Parks to promote exports with special emphasis on SMEs.

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Annex. I

PROJECTIONS OF TOTAL PRODUCTION (IN THOUSAND NUMBERS)

	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cars	**111.9**	**1245**	**1385**	**1428**	**1593**	**1653**	**1850**	**1933**	**2170**	**2285**	**2574**
Multi Utility Vehicle	**200**	**216**	**234**	**253**	**274**	**296**	**321**	**348**	**377**	**408**	**443**
LCVs	**169**	**184**	**201**	**220**	**240**	**262**	**286**	**312**	**341**	**372**	**406**
Buses and trucks	**221**	**235**	**250**	**265**	**282**	**300**	**318**	**339**	**360**	**383**	**407**
Scooters	**992**	**1028**	**1065**	**1104**	**1145**	**1188**	**1233**	**1280**	**1330**	**1383**	**1438**
Motorcycles	**6201**	**7336**	**8681**	**10273**	**12157**	**14390**	**17035**	**20168**	**23880**	**28279**	**33494**
Mopeds	**376**	**411**	**450**	**494**	**543**	**599**	**663**	**736**	**819**	**916**	**1027**
Three wheelers	**437**	**492**	**554**	**625**	**706**	**798**	**903**	**1023**	**1161**	**1318**	**1499**
Tractors	**296**	**311**	**326**	**343**	**360**	**378**	**397**	**417**	**437**	**459**	**482**

CONTD……

PROJECTIONS OF VEHICLE SALES IN DOMESTIC MARKET (IN NUMBERS THOUSAND)

	2004-05	Projected Gr.	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Rate ('000/per unit)
Cars	**885**	**10%**	**948**	**1,043**	**1,147**	**1,147**	**1,262**	**1,262**	**1,388**	**1,388**	**1,527**	**1,527**	**1,679**	**400**
Multi Utility Vehicles	**176**	**8%**	**195**	**211**	**227**	**246**	**265**	**287**	**309**	**334**	**361**	**390**	**421**	**560**
LCVs	**120**	**9%**	**143**	**156**	**170**	**185**	**202**	**220**	**240**	**261**	**285**	**311**	**339**	**600**
Buses & Trucks	**199**	**6%**	**207**	**219**	**233**	**247**	**261**	**277**	**294**	**311**	**330**	**350**	**371**	**1000**
Scooters	**922**	**3%**	**908**	**935**	**963**	**992**	**1022**	**1053**	**1084**	**1117**	**1150**	**1185**	**1220**	**35**
Motorcycles	**4965**	**18%**	**5815**	**6862**	**8097**	**9554**	**11274**	**13303**	**15698**	**18524**	**21858**	**25792**	**30435**	**50**
Mopeds	**323**	**7.5%**	**333**	**358**	**385**	**414**	**445**	**478**	**514**	**552**	**594**	**638**	**686**	**25**
3-Wheelers	**308**	**11%**	**360**	**400**	**444**	**492**	**547**	**607**	**673**	**747**	**830**	**921**	**1022**	**75**
Tractors	**249**	**5%**	**296**	**311**	**326**	**343**	**360**	**378**	**397**	**417**	**437**	**459**	**482**	**200**

ANNEX.II

PROJECTIONS OF VEHICLE EXPORTS (IN NOS. THOUSANDS)

	2004-05	Proj. Gr.	2005-06	2006-07	2007-08	2008-09	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Cars	162	**18%**	**171**	**201.8**	**238.1**	**281.0**	**331.5**	**391.2**	**461.6**	**544.7**	**642.8**	**758.5**	**895.0**
Multi Utility Vehicle	**4.5**	**17%**	**4.5**	**5.3**	**6.2**	**7.2**	**8.4**	**9.9**	**11.5**	**13.5**	**15.8**	**18.5**	**21.6**
LCVs	**16**	**10%**	**26**	**28.6**	**31.5**	**34.6**	**38.1**	**41.9**	**46.1**	**50.7**	**55.7**	**61.3**	**67.4**
Buses and trucks	**13**	**10%**	**14**	**15.4**	**16.9**	**18.6**	**20.5**	**22.5**	**24.8**	**27.3**	**30.0**	**33.0**	**36.1**
Scooters	**61**	**10%**	**84**	**92.4**	**101.6**	**111.8**	**123.0**	**135.3**	**148.8**	**163.7**	**180.1**	**198.1**	**217.9**
Motorcycles	**277**	**23%**	**386**	**474.78**	**584.0**	**718.3**	**883.5**	**1086.7**	**1336.7**	**1644.1**	**2022.2**	**2487.3**	**3059.4**
Mopeds	**29**	**23%**	**43**	**52.89**	**61.1**	**80.0**	**98.4**	**121.1**	**148.9**	**183.1**	**225.3**	**277.1**	**340.8**
Three wheelers	**67**	**20%**	**77**	**92.4**	**110.9**	**133.1**	**159.7**	**191.6**	**229.9**	**275.9**	**331.1**	**397.3**	**476.8**

Annex. I

Projections of performance and power requirement of Auto Component Industry

Years	Total Turnover In USD Bn	Exports In USD Bn	Share of exports In percentage	Overall domestic In USD Bn	Domestic OEM In USD Bn	After market	Power requirement In MW
2005-06	14	1.8	13	12.2	9.6	2.6	1273.7432
2006-07	16	2.3	14	13.6	10.6	2.9	1443.715
2007-08	18	2.95	16	15.1	11.9	3.2	1643.1021
2008-09	20	3.77	19	16.4	12.9	3.5	1839.6722
2009-10	23	4.83	21	18.4	14.4	4.0	2113.8471
2010-11	26	6.18	23	20.2	15.8	4.3	2397.8722
2011-12	31	7.92	26	22.7	17.8	4.9	2783.4372
2012-13	35	10.13	29	25.0	19.7	5.4	3200.0656
2013-14	41	12.97	31	28.3	22.2	6.1	3753.7237
2014-15	48	16.6	35	31.5	24.7	6.8	4373.3306
2015-16	57	21.25	37	35.7	28.0	7.7	5183.5744

Annex. IV

CATEGORYWISE PRODUCTION OF TYRES BASED ON PROJECTED 7% GROWTH (Per Annum) IN TYRE DEMAND

Figs. / Lakh Nos.

S.		**2005-06**	**2006-07**	**PROJECTED for ELEVENTH FIVE YEAR PLAN PERIOD**				
No.	Category (of Tyres)	(Actual)	Est.	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**
1	**TOTAL TYRE PRODUCTION**	**660.32**	**706.54**	**756.00**	**801.36**	**849.44**	**900.41**	**954.43**
	(of the Total) Categorywise							
2	Truck & Bus (T&B)	119.41	127.77	135.43	143.56	152.17	161.31	170.98
3	Light Comm Veh (LCV)	45.29	48.46	51.37	54.45	57.72	61.18	64.85
4	Passenger Car+Jeep	148.78	159.19	168.75	178.87	189.60	200.98	213.04
5	Two/Three Wheelers	306.26	327.70	347.36	368.20	390.29	413.71	438.53
6	Farm/Tractor (incl. ADV*)	34.38	36.79	38.99	41.33	43.81	46.44	49.23
	(*Animal Drawn Vehicle)							
7	Other Tyres	6.20	6.63	7.03	7.45	7.90	8.38	8.88
	(Industrial, Off the Road etc.)							
	Source: ATMA							

Annex-II

Estimated Steel Requirement in Automobile Industry for the XIth Plan

(2007-08 to 2011-12) (In Tons)

Sl. No.	Type of Steel	2007-08	2008-09	2009-10	2010-2011	2011-2012
1	HR	547423.36760	604486.7773	659165.8765	719584.4913	786444.0335
2	CR	1296827.43900	1486743.359	1661996.075	1860444.293	2085471.267
3	Forgings	523970.85600	566899.638	613786.872	665052.582	721167.102
4	Springs	64288.24000	68779.97	73600.52	78775.15	84330.96
5	Wheel Rim	277764.60000	299695.81	323587.88	349645.01	378095.61
6	Bars	35035.8 1330	69502.18836	78761.22087	89458.84086	101835.571
7	Coated Strips	25683.93884	29636.59898	34280.8763	39740.30186	46160.57796
8	Steel Pipes	125851.30030	145219.335	167976.2939	194727.4791	226186.832
9	Galvannealed Steel	813.32473	938.492301	1085.561083	1258.442892	1461.751635
	Total	**2897658.87977**	**3271902.169**	**3614241.176**	**3998686.591**	**4431153.705**