India's Current Constraints for Higher Rate of Economic Growth in Manufacturing Sector and their probable Solutions

- **R N Parbat ***

In 2015, India is, once again, at the stage of an Economic take off. World Bodies recognize India as an awaken Elephant and the Prime Minister calls it a Running Tiger with MAKE IN INDIA MISSION.

What are then the Major Barriers in India for Fast Economic -Growth?

- Legislative Reforms
- Legal Reforms
- Institutional Reforms
- Colonial Mindset at Bureaucratic Levels
- Ministerial Interference
- Absence of Committed Politicians
- Environment & Forest Clearance
- Acquisition of Land for Industrial & Infrastructural projects
- Access to Mines (Metal & Coal) for Major Metal and Energy producing Organizations
- Access to potable water for industrial activities and strict implementation of Total Recycling of Waste Water with Zero Discharge to the environment
- Non-availability of properly qualified professional Engineers and skilled Technicians
- Limited-availability of IT Engineers for development of New Systems while a large number of IT Engineers are available for Maintaining Imported Systems
- Indian Electronic & Instrument Industries are mainly assemblers of Imported Parts rather than Manufacturers of Parts, whereas China is strong in both Manufacture of Hardware and Software
- Indian Engineering Industry became dependent on Foreign Technology and Supply of Foreign Equipment
- Indian Research is aimed at production of Ph.ds with publication of technical papers rather than coming out with Break-through Technologies, relevant for Indian Economic Growth (Besides FIRST Green Revolution, Nuclear Power & Energy and Space Research, nothing worthwhile can be mentioned)
- Indian Industries become HIGH COST units very soon while Singapore, Taiwan and China took more than 30 years to become relatively higher Cost compared to South America, Africa and some of our South East Asian countries
- While Indian Entrepreneurs are showing less confidence in Indian Economy, how can we wish to woo Foreign Investors to invest in India

……

- The author is a Former President of The Indian Institute of Metals and Former Director & COO of Indian Aluminium Co. Ltd. Email ID: rabi_044707@bsnl.in

Let us now try to analyze each one of the above issues.

- Legislative & Legal Reforms

  Century old Legal System needs a complete overhaul. It has already been recognized by the Ruling Party and the Parliament. We now need to Bell the Cat soon. Supreme Court and High Courts are emerged under 30 year old Cases. When shall a new litigant expect to get a hearing to his or her Case?

- Institutional Reforms

  Banking System, Financial System and other Control Systems also deserve a New Look. Banks are burdened with high NPAs, for whose fault? Has anyone been punished for such poor performance? Financial Regulators have also failed to control Financial Scams and Private Investment cum illegal Banking.

- Colonial Mindset at the Bureaucratic Levels

  The Current Central Government, for the First Time in Independent Indian, has started addressing the Bureaucratic mindset, suggesting that the bureaucratic focus should be on Development work and not merely on Controls. At the same time, they have been assured of safely net in case of any genuine mistake. They have also been advised that maintenance of Administration is their responsibility while the Political Leaders will continue to focus on Social and Economic Issues of the population in the country.

- Ministerial Interference

  The Current Prime Minister has advised the Ministers and the Legislators not to interfere in the Bureaucratic Actions as long as they are Development oriented. They should try and help the Bureaucracy to combine Development with Social Issues in their Action Plan.

- Committed Politicians

  During the last 40 years or so, India did not see many Politicians, committed to Public causes. They have been by and large self seekers. That had led to rampant corruption in public life. The Bureaucrats were also not spared. Honest bureaucrats lost out in bargain and the corrupt ones gained profusely. How otherwise, could a Bureaucrat amaze property worth more than Rs.10/20/100 Crores and Politicians made property worth more than 1000 Crores?

  Hopefully, the current Central Government' strict vigilance and reassurance to the Politicians and the Bureaucrats for clean performance will have a salutary effect.

- Environment and Forest Clearance

  The previous Government at the Centre, though liberalized many industrial, infrastructural, financial and service sector regulations, they kept a STRICT control on the Environment & Forest Clearance to favor the favorites. They even used motivated NGOs to support Govt. stand. That is how POSCO, MITTALS, VEDANTA and many others were deprived of Environment clearance or permission to acquire mines and land for their new Greenfield projects.

  The current Central Govt. seemed to have understood the game plan of the previous Govt. at the Centre and hence, made the clearance policy a more transparent practice. Hopefully, 2G Spectrum Scam, Coal Scam and Mines Scam, Money laundering, etc. are matters of the past.

  Environment, Ecology and Forest are national concerns BUT that should not stand in the way of economic growth of the country, benefiting millions of our country men and women. Every country including China has tackled this issue fairly successfully, then why should it be so difficult for India? Our current Ruling Party at the Centre assured the World that India would like to decrease her dependence on Global Worming CO2-generating Fossil Fuels and progressively increase the proportion of Clean and Renewable Energies like Solar, Wind, Bio-Gas and Nuclear Fission. At the second stage, India will go for the use of Hydrogen Fuel Cell, Geothermal Energy, Wave Energy, Nuclear Fusion Energy, etc as the source of Energy. Our previous Prime Minister as well as the current Prime Minister has been very successful in receiving approval for importing Uranium from Russia, USA, Australia, France and Canada. A number of NGOs and some Political Parties, opposing installation of Environment friendly and technically safe Nuclear Power Plants in India, should be silenced by sound technical logic and the history of performance of our Nuclear Power Units. It must not be forgotten that India set up her FIRST Imported Heavy Water Cooled Nuclear Power plant more than 50 years back, thanks to the foresight of Dr. Homi Bhaba and Jawaharlal Nehru. Thereafter, Indian Nuclear Scientists at

Trombay in Mumbai and Kalpakam in Tamil Nadu have developed FIRST BREEDER Nuclear Technology and over 1000 MWE capacity in First Breeder Plutonium Reactors are already in use and under construction. The final opportunity is, however, in Thorium Reactors. First Breeder Plutonium Reactors are used to convert naturally occurring Thorium, available in plenty in Indian Coastal sand from Orissa through Andhra, Tamil Nadu and Kerala (more than 50 % of World's Thorium reserve is in India), to Uranium 233 to embark on 3rd. Stage Nuclear Reactors. At that stage, India will not only be self sufficient in Nuclear Fuel but will also be an Exporter of Thorium Fuel and Thorium Reactor Technology. Hence, there is an urgent need to educate the Indian Public and the Political Parties on the need and the importance of Nuclear Power in India.

- Acquisition of Land for Industrial and Infrastructural Projects

Land is an essential part of any industrial or infrastructural project. Again, there has been too much of politics with sanction of land for any development work. Previous Government at the Centre and the State Governments at State capitals were pursuing a so called "pro-farmer land policy" as a popular Vote Bank policy. This has failed to improve the economic lot of our rural population. Repeated crop failures force migration of agriculture laborers to urban sectors in search of jobs. Also the children of agricultural labors do not want to work in the field, instead they prefer Industrial jobs. As a result the population in villages are getting poorer and often resorting to suicide due to unmanageable financial burden resulting from crop failures. A permanent solution is, therefore, in bringing in a Second Stage Green Revolution by further introduction of latest technologies in the use of least quantities of fertilizers and water for at least 50 % higher yield of the produces. Current Prime Minister's slogan "LESS DROP BUT MORE CROP " is perhaps the RIGHT objective for the Agro-Scientists and the Modern Farmers.

The Politicians and the Social workers should in tandem work with the Farmers and convince them to part with necessary land at a substantial financial compensation for building Roads, Schools, Hospitals, Rural Housing and medium size industries in the rural areas to provide employment to rural people. Overall development along with substantial increase in agricultural production through Second Stage Green Revolution will ultimately improve the economic prospect of rural people and prevent large scale migration to urban areas creating new slums.

- Access to Mines (Metal & Coal) for major Metal and Power producing Organizations

There was a total Policy paralysis in this regard during the regime of the previous Govt. at the Centre. The Current Govt. at the Centre and the State Governments at the State Capitals have arrived at a "win-win" situation for all the four partners, i.e. the Land owners, the Investors, the State Govt. and the Central Govt. The displaced habitation in the mining area will, although, receive a substantial financial compensation with a promise of employment for at least one able-bodied person from each family in the industry, I would have preferred the Land Losers to get an Equity share in the Industry for "life-long" earning for their families.

It is imperative that a Metal Producer should not only get access to a Metal Mine but also to a Coal Mine to meet their captive energy requirement. Similarly, a Thermal Energy producing Company should also get an access to a Coal Mine for their captive use.

- Access to Potable Water for Industrial activities and strict implementation of Total Recycling of Waste Water with Zero discharge to the environment

  Industries cannot operate without water. Mineral Dressing, Coal-Washing, Chemical-Processing, Water based lubrication and Cooling of machineries to maintain room temperature need large volume of water. Used water should, however, be reprocessed, cooled and recycled for the same industrial purpose ensuring Zero discharge to the environment. This would minimize the requirement of further fresh water to maintain the process and the health of the Equipment in the industry. Water is a scarce resource in the World. Conservation of potable water is an International concern. It is claimed that the 3rd. World War, if any, would be fought on Water Crisis and not on Oil Crisis.

- Non availability of properly qualified Professional Engineers and Skilled Technicians

  A Slow rate of Industrial growth in India over the last 60 years or so, created a sluggish demand for Engineers and Technicians in the country. After introduction of Liberal Economic Policy in 1991, a ray of hope was created in the country but subsequent economic slowdown in the World, ineffective corruption-prone coalition Government at the Centre and the emergence of Strong Regional Political Parties created a total imbalance in the political system of the Country. At the same time, on the basis of Technical Manpower Forecast for India, fresh Engineering Colleges, Polytechnics and Industrial Training Centers were set up. Number of fresh Engineers swelled from 6,00,000 in 2007 to 16,00,000 in 2015. Thanks, to the emergence of IT, ITS and Telecom industries. More than 80 % of all the qualified Engineers irrespective of their academic discipline are absorbed in those newly emerging Information-Technology Industries.

As a result the quality of basic Engineering courses got a serious jolt. All courses were aligned to the needs of IT Industries.

To-day, when Metal Industries, Process Industries, Power Industries, Mining & Mineral Processing Industries, Refractory/Ceramic Industries, Auto & Casting Industries, Defense & Atomic Industries are looking for Engineers and Postgraduates Scientists, quality persons are not available in the market. Best quality Indian Engineers and Scientists are migrating to USA, Europe and Japan for better career options in the state-of- the-art Research facilities and Front line Technology driven Industries. Some of them are also opting for Administrative and Financial jobs.

What is the answer? The current Prime Minister has given a call for higher SKILL DEVELOPMENT at all levels in the relevant fields to ensure success of his policy "MAKE IN INDIA". The Ministries of Education & Human Resource Development and Science & Technology, in consultation with the Ministries of Industry, Metal & Mines, Coal & Power, Defense, Nuclear and Space Research should develop a Road Map for immediate Skill development to meet our Country's current and immediate future needs in Agriculture, Mining, Metallurgy, Manufacturing, Information Technology, High Technology Industries and Service Sectors Industries. There is also a big gap in the Demand-Supply scenario of Teaching Staff at Engineering and Higher Scientific education. Research and Teaching Profession should be made financially and career wise more attractive.

- Limited availability of IT Engineers for developing New Systems while plenty of IT Engineers are available for Maintaining Imported Systems.

  Micro Soft did set up a Research & Development Centre for New IT Systems at Hyderabad, around 20 years back with the objective of utilizing superior Indian brains for Low Cost development of New Systems in India rather than in US. But two years back, they have moved out their Research & Development Wing to their headquarters in USA as Indian IT Engineers were not found suitable for Research Work. Only those IT Engineers, mostly from IITs who undertake higher education in USA are found extremely suitable for research work.

  Mushrooming of a large number of IT Institutions without proper Teaching Staff, adequate Workshop and Laboratory facilities, have been responsible for creating "low quality" IT Engineers in India. Creation of a Research Environment at IT Institutions would, perhaps, help improving the quality of our IT Engineers.

- Indian Electronic & Instrument Industries are mainly assemblers of Imported Parts, where as China is strong in Manufacture of both Hardware and Softer.

  After independence of India, the Govt. of India through 5-Year-Plans, gave emphasis on Electronic, Telecommunication and Instrumentation Industries. Electronic Corporation of India was set up to promote manufacture of Electronic Goods. But, such industries continued to grow as Assembly Units of imported electronic components rather than manufacturer of such components indigenously. This was true for even Defense as well as development of Cryogenic Engines for Supersonic Aircraft. It was only after the Underground Testing of Nuclear Device, when the international community banned any supply of strategic equipment or technology to India, the Government and Civil Manufacturing Units started seriously looking for indigenous development of complex electronic devices for application in Civil, Defense, Nuclear, and Space applications. However, even now, we depend heavily on Japan, USA and Europe for import of many critical components and equipment. During the last 20 years or so, too much attention was given on Software industries ignoring attention on Hardware. An immediate correction is needed in this respect. Current Prime Minister's call to the International Manufacturing Community to Use India as a Manufacturing Hub, not only for Indian market but also for the World market is perhaps the right approach.

- Indian Engineering Industry has also became dependent on Foreign Technology and Supply of Foreign Equipment

  Indian Steel Industry is over 100 years old. Although, India claims to be the Third largest Steel Producer in the world, after China and Japan, we are yet to design and build a Single Blast Furnace or a Big Steel Rolling Mill. The preferred suppliers of both Technology and Equipment are Germans, Austrians, Americans, Japanese, Koreans and Chinese. It is worth mentioning that all those countries developed their knowledge base along the ascending curve of Steel production. India still prefers to be a Technology Shopping Country even at the current level of annual production of 100 Million Tons with a target to reach 300 Million tons by 2025/2030.

  The story is also similar in case of Aluminium. With nearly 6 Million Tons of indigenous Aluminium production per annum, India is still an importer of Technology and Equipment from France, Canada, Australia and China.

  Heavy Engineering Corporation of India was set up by the Govt. of India at Ranchi during 2nd 5 Year Plan period. It continues to be a Sick Unit due to lack of Focus. Whereas, Bharat Forge, a

Private Sector Company, that came in existence in late 1960s has developed itself as a World leader in manufacture and international marketing of Forged Steel Components.

Privatization of Public Sector Units is perhaps the Right decision to improve professionalism in the Business. Public Sector Units like Bhatat Aluminium and Hindustan Zinc have grown more than 300% under the management of Private Sector Company, Vedanta Group within a short span of 10 years. While Hindustan Copper, a Public Sector integrated Copper Company, has over a period reduced itself into a Mining-Company, the Private Sector Companies like Birla Copper and Vedanta Copper are thriving in Smelting and Downstream activities using imported Concentrate of Copper Ore.

It is, therefore, high time that the Public Sector Syndrome be slowly changed over to Private Sector for efficiency and speedy growth. Simultaneously, a National R & D Policy needs to be introduced promptly to encourage development of Indigenous Technology and Machineries.

- Indian Research is aimed at production of Ph.ds with publication of technical papers rather than coming out with "Break-through" Technologies, relevant for Indian Economic Growth (Besides FIRST Green Revolution, Nuclear Power & Energy and Space Research, nothing worthwhile can be mentioned)

  We have a large number of CSIR Laboratories, basically engaged in the field of Industrial Research. Besides, a large number of University & College Research Centers and Industrial Research Centers are also engaged in pursuing Research. In the last 60 years of Indian Research, how many Technological Breakthroughs, can we claim to our credit? A total relook is necessary in our National Research Programme to prioritize Areas of Research for National Causes. Fundamental Research must be pursued to push the Frontier of Knowledge but higher emphasis must also be given to Research work to improve the Economic Prospect of our large number of economically deprived population.

  Industrial-funding is negligible in National Research Programme. This needs immediate correction. Engineers and Scientists are normally encouraged by their Professors to pursue Research in their chosen fields where international recognition is ensured. Indian issues are not, at all, important to them. Research funding is done mainly by the Department of Science and Technology, Govt. of India and the International Research Funds. Metallurgical and Manufacturing Industries hardly trust Indian Research System to resolve their outstanding industrial problems. Instead, they prefer to buy New Technologies from overseas market. We have a "trust-gap" between Users of Technologies and Researchers in the Country. There is,

therefore, a need for serious dialogue between the Users of Technologies and the Researches under the umbrella of Govt. of India.

Setting up of New Research Laboratories in the Country may not be the right answer. National Metallurgical Laboratory at Jamshedpur, SAIL Research Centre at Ranchi and Jawharlal Nehru Aluminium Research Development & Design Centre at Nagpur did not, so far, help the Country in developing any significant "breakthrough" from their Research Centers. The Industrial Leaders, Technology Specialists and the Representatives of Govt. of India should sit together and find a tangible and lasting solution.

- Indian Industries become High Cost Manufacturing Units very soon while Singapore, Taiwan and China took more than 30 years to become higher cost compared to South America, Africa and some of our South East Asian Countries

  Having spent my life time in Indian and Overseas Industries, I have learnt the technique of remaining a Low Cost Manufacturer. Continuous Modernization, Expansion of capacity, Infusion of Latest Modern Technologies and Continuous improvement in Labour Productivity through Labour rationalization and Labour training are keys to success. Innovation in New Technologies, Introduction of New Products, Expansion of Market share both Domestic and Overseas, Continuous reduction in Cost of Production along with Continuous improvement in Quality of the Products and the Yield of the Processes can only ensure Competitive Cost structure and Higher Profitability of a Manufacturing Unit. It is obvious that the Management Team should be Lean and Smart for Seamless implement of all the Management philosophies. I am a strong believer of the saying that "An Organization is an extended Shadow of it's Chief Executive".

  In 1991, following the Economic liberation in India, the Members of the Industrial Club of Mumbai demanded a Level Playing Ground for the Indian Industries. But within a short period of 10 years or so, Indian Industries modernized themselves and became competitive to the Overseas Industries. Ambanies, Bajaj Auto, Bharat Forge, Tata Steel, Hindalco Industries, TCS, Infosys, WIPRO are some of the examples.

- While Indian Entrepreneurs are showing less confidence in India, how can we woo the Foreign Investors to invest in India

  Representatives of the Govt. of India should meet the Industry Representatives in a Joint Session of CII, FICCI & ASSOCHAM and discuss the Major Concerns of the Indian

Entrepreneurs, restraining them from investing in India despite the Liberal Economic Policy, being pursued by the Current Govt. of India. An Environment Friendly Government Policy is not only helpful to the Overseas Investors but also to the Indian Investors. The Economic, Social, Psychological and Environment issues must be resolved to the satisfaction of Indian Investors before we woo the Foreign Investors. Flow of Foreign Money into the Indian Share Market is a Market-Phenomenon. This money can Enter and Exit on momentary decisions of the investors but Investment in Land and Manufacturing is of Permanent nature. The Current Central Govt. in India is saying and wishing to do many Good Things BUT the evidence of such WISHES are still not clearly found on the Ground.

Land Acquisition Bill, Environment Clearance Practice, Simple Labour Laws for easy ENTRY & EXIT to and from the Industry along with relatively lower Interest rate are the demands of the Investors. They are unwilling to accept excuses , any more.

National calamities like Flood, Draught, Natural Disasters and Parliamentary obstructions by the Opposition Parties are normal in any Developed or Developing Economy. Govt. in power has the only option to find an amicable and acceptable solution to all those issues.

In Conclusion, India is now ready for a BIG take-off and we cannot afford to MISS IT. The whole World is looking towards India for a Democratic Solution to the World Economic Crisis. The newly emerging Economies in Asia, Africa, South America and Eastern Europe are eagerly waiting to see the SUCCESS of Indian experiment.