5. INDIA DESPERATELY NEEDS RESEARCH BASED, INNOVATIVE WORLD CLASS INSTITUTES

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Abstract

The paper presents in brief, need and importance of research based innovative world class universities and colleges, for global competitiveness. To win in a competitive world, India needs professionals of world class standard, which with higher imagination can make India forerunner. Graduates to become Pace setters, technology pioneers and industry leaders demand institutes to be ahead of time. Conventional institutes produce mediocre, followers, fit to become soldiers at best in multinationals. There is huge energy in Indian youths, yet too few become leaders in industry and technology on global plane, because that is not what present institutes are teaching students to become.

If we do not envision building research based world class institutes, we will lose in brain race; India will continue to trail behind the developed world.

Students demand world class education. They are ready to pay for it. But not many are able to offer. Thousands of students every year go abroad. Foreign universities are coming. World class institutes are innovative in character. They generate jobs, entrepreneurs and high income. In knowledge driven economy of today, they assume high significance. Industry looks at these institutes as "Light Houses". They are an idea source. They energize national and international environment. Spending any amount to make institutes world class is justifiable. Can India hope to be a developed nation with present poor quality higher & technical education? At least some better performing institutions should forthwith be enabled to reach to world class status. Can we create world class centers of excellence? This will decide India's future. The number of world class institutes is now a differentiating factor between more developed and less developed countries.

The paper identifies strategies which contribute to make an institution world class. The strategies are grouped as governance, academic, administrative, financial etc. They are, however, tough to deliver and essentially call for political will.

Key words: world class, autonomy, innovation

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1.0 Where does India stand in world ranking?

World ranking of universities for the year 2010[1] indicate that first eight out of ten universities are from USA. Merit students in all the countries in the world dream to study in US. Many of them after studies settle in US adding to its intellectual capital. World class institutes in any nation are like a magnet to attract brains. Seeds of leadership are sown in the minds of students while they are studying within the four walls of class rooms. Chinese universities in world list went up from 16 to 34 in one year. Whereas only two of our institutes, namely IIT Kharagpur and IISC Banglore figure in first 500. With so small a number of world class institutes, can we ever win? So India is installing afresh many new IITs, IIMs and universities.

Where do you produce imaginative leaders? Leaders of tomorrow, who would be the movers and shakers around the world are strolling today in quadrangles of institutes. Thomas Jefferson, Founder President of USA, then emphasized on improving higher education so as to become world power [2].He said unless US establishes lead in higher education, it cannot lead in economy and industry. USA created United States Science Foundation and research based universities. The strategy worked well. It will work well, also, in India, and so Government of India has initiated [TEQIP] Technical Education Quality Improvement Program. Around Rs 4000 crore are being invested in 300 well performing colleges with the assistance of World Bank [3]. We need to implement TEQIP effectively, and enlarge its scope to cover all colleges. Budget should be increased from 3% to 6% of G.P.D.

"Where once nations measured their strength by the size of the army and arsenals, in the world of future, knowledge will matter most. Now strength is measured by the number of world class institutions that germinate, innovate and incubate new knowledge and new technology,"

India needs them most, for it is aspiring to be a developed nation by 2020. Reformation in universities and colleges in India presently is high on agenda. According to the recommendations of National Knowledge Commission [2006] and Yeshpal committee report [2009] attempts are being made to enlarge Gross Enrolment Ratio, achieve excellence, and make education inclusive. India's economic and political standing in the world is dependent on its winning in **"Brain Race"** that is to say on higher education in global comparison. With this in view, Government is allocating huge budgets, opening more institutions and appointing more professors, which is necessary, but not sufficient to make institutes world class. Critically important is adoption and implementation of world proven visions & missions, policies and practices, systems and procedures. Learning from world experience, it is necessary to reframe the visions and missions and link them up with institutional programs. Questions are asked whether the institutions will include, knowledge/ technology generation, technology transfer, innovation, creativity, patent& IPR, spinoff of new technology based firms, corporate development, lifelong education in their visions and missions [4].They have a deeper impact on improving quality, without which they turn out to be mediocre. Mediocre institutions teach nothing other than how to become more mediocre. Most of the institutions in India produce graduates who can at best become technology followers. In the absence of research base, Professors do not bring cutting edge technology to class rooms. They teach yesterday's knowledge today and are not able to produce technology leaders and technology pioneers. Without world class institutions, India's dream to become a developed nation cannot be fulfilled. The knowledge, technology content in the society, then remains low, keeping income low. The paper gives a suggestive list of strategies, which, when followed, will enable an institute to make most of its existing intellectual resources to become forerunner.

The higher & technical education institution, in the coming time, although will undergo substantial changes, driven by new learning

technology, harsh financial constraints, changing public demand, globalization and growing intellectual opportunity, it must keep learning and especially student learning at the heart of its mission. Creativity, innovation, discovery, patent & IPR, spin off New technology Based Firms should have to become the new targets. Campus of today indicates larger society of tomorrow. With this in view institutes need shaping.

Institutes are power houses to produce national, international leaders. Today, the vector direction of higher education is undoubtedly misplaced. There is almost a complete lack of proper governance, which makes the problem huge. Government is simply providing lip service, and hence India is a lowly educated country, with 25% people riddled in poverty. That is why, on one hand, we have unemployment of educated and on the other shortage of well educated. What is wanted is not taught and what is taught is not wanted. It needs immediate correction. It needs 6% of GDP budget for education, which requires political will. Without which the people below poverty line, nexalism and suicides of farmers will keep on increasing.

An institute which has characteristics as under is more likely to win; others may work hard, may have all the resources to draw on but will lag behind.

An attempt should, therefore, be made to change mindset of key people to upgrade existing institutions by spending any amount, to acquire following characteristics.

Many institutions in India are planning to jump up to higher orbit. To enable an institution to become world class, requires change in policies & practices and change in style of governance. How to go about is explained in this article.

2.0 Strategies enabling an institute to win.

The following strategies and their combinations in various proportions enable an institution to achieve excellence. Systems of operation internal and external, in an institution may have to be redesigned to align them to achieve world class standard.

2.1 Governance Strategy

2.11 Institutional Autonomy: stimulates imagination

The successful Higher & Technical Education institution, in coming time, will be that which will maintain institutional autonomy, lively faculty, Independence, and vigorous academic freedom, but will enjoy strong, impartial, public governance and committed institutional leadership. All good institutions, world over, are essentially autonomous. Professors and students ought to have freedom to be innovative and creative. Politicians and bureaucracy should not put a cap on their imagination, although they provide funds. Institutes themselves ought to steer the direction of academic pursuits. There should be almost no interference in academics from outside. This has to be so in public interest. More governments believe that institutions serve their nations better if the institutions are managed and maintained by governing boards consisting of professionals. The trust should not supervise the college directly. It should appoint a body of experts as Governing Board to supervise. AICTE has made this addition for the good of institutes starting from this year [2011-12]. Autonomous status is a prerequisite to success. This should be accorded in letter and spirit. Faculty and staff should be allowed to develope taste of autonomy for which mixing with their counterparts from world best institutions, is necessary. It is observed that Government grants autonomy, but with strings attached. This is not in larger interest. Bureaucracy needs to be curbed. When will the government realize this?

2.12 Compatibility to opportunities and challenges in a globalized world: The winning Institute in coming time will be that which is compatible to the opportunities & challenges in globalization. Indian institutes are yet not aligned

and tuned to world dynamics. They have in the recent past progressed well quantitatively but are yet poorly equipped and woefully unsuited to the quality demands of globalization. Transformation to world class status demands more of intellectual inputs, systems inputs. There is a mismatch in education. What is wanted is not taught, and what is taught is not wanted. Conduct of courses is diverse from opportunities for employment and income generation. They run behind the time. That is why there is unemployment in educated youths.

2.13 Privatization ought to be publicly accountable and socially committed: The preferred institution will be increasingly privately supported but publicly accountable and socially committed. Privatization of technical education is certainly good. But there are some risks, which need to be guarded so as to make most. Private institutions in India are mostly managed and maintained by political persons. They should keep in mind the deeper purposes of education. Students should not be exploited but helped. It is hoped that governing authorities would show statesmanship and use the institutes as means to build a national unity they seek, and to develop the human resources needed by economy.

2.14 Educate local people in hi-tech: The successful institution will be technologically sophisticated but community dependent. Quality of Education does not depend only on instructions in classroom & laboratories. It depends more on building synergy in institutes and local industry. Indian institutes need to learn commercialization of new technologies. It needs multi facetted activities like Entrepreneurship, Technology Incubators, Patents & IPR, Lifelong education centres, Research parks, Enterprise development centers which bring about a marriage between industry and academics. They should be set up as early as possible. Only class room teaching although essential is not enough to improve quality, and relevance. Only pumping more money and appointing more men in institutes is not enough. National Knowledge Commission [5] has recommended establishment of above centers of excellence, as integral components of the institutions. They have a deeper impact on quality of education. Solution lies in sensitizing institutions as well as industry in the potential synergy between the two.

2.15 Institute has to be Competitive internationally: Each successful institution in coming time will have to be competitive, not only by national standards but by international. The visions & missions of the institutions, policies & practices, systems & procedures should be made responsive to the changing world. Indian Universities, colleges and polytechnics till recently were ahead of their counterparts in China [6]. But now they are far too behind. Do we realize this? Only those who realize, and do benchmarking, will improve.

2.16 Addressing local problems with an eye on international: The successful institution will be campus rooted but internationally oriented. The professors in the past did not have adequate opportunities to go abroad and see what and how their counterparts are teaching. They were practically disconnected from rest of the world, and not familiar with the global developments. In order that they become equal to world class professors they need to be granted increased international mobility. Sachin Tendulkar could not have become world class cricketer if he was not allowed to play international cricket. Cost of providing international exposure to professors is high but much less than the hidden cost of not providing, which ultimately reflects on competency of the society.

2.17 Create academic partnership with many: The successful institution will be academically independent but constructively partnered. If the institution is to meet the increasing range of social needs, it will require new alliances within the academic community and new partnerships outside it, with communities, local, state and national agencies, corporations, libraries, museums, publishers, professional associations, scholarly societies, and other institutions. It will establish closer

cooperation with other "providers" and "users" of knowledge including commercial vendors of educational hardware and software. Institutions will be successful who nurse public private partnership, [PPP][7]. Success of an institution will depend on how many partners national and international it is able to carry with.

2.18 Institutions will be successful only if the Mechanism of governance at all levels i.e. governmental, university and college levels is modernized by using scientific approaches. It should be made flexible, participative, and responsive to the aspirations of youths. Government is devising policies and practices so as to make it inclusive. Universities and colleges should bring them in practice. Professors are yet poorly paid with stringent work conditions, which constrain them from achieving international standard. Sabbatical leave is not yet provided.

2.19 What is then the vision of India for the year 2020? A developed nation? Then we need to throw out old dysfunctional college affiliation model and resort to autonomy. So as to achieve this dream, institutions must have to become fountain heads of S & T, a well-spring generating and disseminating new technology to small and medium enterprises. The orientation of institutions is still towards training, rather than creation of new knowledge. It is presumed in system that knowledge is finite, already discovered and written up, so that a young scholar is needed to study only the established facts. Research, discovery of unknown is not yet an integral part of curriculum. This new vision must prevail.

3.0 Academic Strategies:

3.10 The successful institution will be knowledge based but student centered, research driven but learning focused. There is an acute need of establishing technical universities. It is this strategy which enables to achieve excellence. [8]. It is they who can focus better on technological research, and to become "lighthouse" for industry. Universities should go beyond puppet like teaching. Students should not become teacher puppets. They should aim to become pace setters and path finders in changing world. They should create an atmosphere of competition and avoid monopoly. The present universities are fat and flabby like an elephant. So they cannot adapt changes fast. Universities should be lean and thin like a deer, and possess agility. For want of technical universities, opportunities are dying and being taken away by foreigners. World experience tells us that technical university is a more effective model than multi-faculty model. It consumes fewer inputs and gives more output. We need to realize this.

3.12 The successful institution will be that which will produce new technologies in its laboratories. By importing and following the technologies from abroad, India cannot hope to be a technology leader. Institutions should aim at producing new knowledge, new technologies, and leaders in industry. Can Indians become technology pioneers? They should aim to produce Indian brands in technology and industry.

3.13 successful institutions will be that which acquire new vision of the new world. The industries need continuous input of new knowledge & new Technology, so as to remain competitive in global market. Institutes & Universities should acquire this new vision of the new world. Visions should include corporate development and enable industry to win. Institutions will be successful who provide new technologies to industry.

3.14 Indian institutes will be successful which produce balanced output of UG, PG and PhD. Present output of PhDs is 0.5 per million population. The corresponding figure of USA & Japan are 30 & 28 /million population. With this abysmally low figure of PhDs can India hope to win in the world brain race? TEQIP-II Government of India, 2009 [9] has estimated that India needs 30,000 PhDs and 24,000 M Tech.

3.15. The successful institution will be quality obsessed but procedurally efficient. Many institutions in India are spending money far in excess but due to lack of Total Quality Management [TQM] approach they do not excel. Implementation of TQM does not require additional money, it results in saving. The Governing boards, UGC/AICTE should prescribe, make it obligatory and facilitate use of TQM. IN United Kingdom government does not grant financial support to an organization which does not use TQM.

3.16. Institutions will be successful which give birth to new technologies, patents, hi-tech startups [10]. Do we want to use only imported brands of technologies or generate Indian brands? Then industry and institutes should look to each other's support for growth. They cannot produce in isolation from each other. Youthful talent in institutes is a great force. Synergy between institutes and industry is the only way to achieve peak performance by both of them. Industry should change their mindset and learn to support technological research in institutes. They should jointly undertake activities like research parks, innovation centers, technology incubators etc. One is less effective without the support of other. They should do so on sustained basis over a long period.

4.0 Administrative: The institution will be successful, where the chancellor of universities is competent academically [11].

Governor of a state is presently the ex-officio chancellor of universities. This system, coming by tradition, does not suit today. Now when education has become so vast and complex, stakes involved are so high, the chancellor of universities cannot be a decorative figure. He needs to be an academician with wide open experience in the world of academics. Today the problems in higher education remain improperly diagnosed, inadequately analyzed. Hence, solutions are not forth coming. A separate office of chancellor with qualified staff is the need of the hour. If this is not done, foreign institutes will find it easy run over and capture the vast Indian education market. Who pays the price? Innocent students!

4.1 Industry should take a long range view of the interaction with institutes.

Industry cannot do all the research all alone by itself, needed for becoming globally competitive. It must think differently and align with institutes for research. With this approach it is much cheaper, quicker and better to develop indigenous technology and/or absorb technology coming from abroad.

4.2 The skill set of the vast population of India is far too low by international standard It needs up gradation forthwith. Both young and adults in urban as well as rural areas should be uplifted in knowledge & skills. Not only machines become obsolete but men also. They need to be enabled to become globally competent and remain so lifelong. Lack of access to learning skills leads to unemployment, increases in poverty, nexalite tendency, crime rate and in turn forced for investment in security measures etc. Shall we then not choose to invest in favor of building world class institutions rather than being forced to build prisons?

4.3 Higher and Technical Education in India will be successful only if the recommendations of National Knowledge Commission [2006], and Yesh pal Committee [2009] in respect of grant of autonomy to Institutions should be urgently discussed debated and implemented. Innovative and creative budding minds demand reforms. Nations where institutions are keeping pace with time progress faster. They must change with changing world. The challenge is to enlarge capacity of colleges.

4.4 Institutions will be successful which identify internal weaknesses, re-design structures, systems and procedures. A world proven theory says that some of the authorities in chair and politicians in particular may obstruct even sabotage and slow down the process of

transformation. Resistance to change, inertia of the system is natural [16]. This is usually done to keep alive their personal vested interests putting public interest in danger. This is human tendency. Therefore transformation of higher and technical education should not be left totally in the hands of authorities in chair. An independent body to plan & monitor reforms must be constituted. Implementation of recommendations of NKC and Yeshpal committee-2009 should not be left to existing authorities of universities and colleges like in the past. A separate independent task force of dedicated educationists, industrialists, and social reformers is necessary to be constituted at state and national levels for the purpose. Recommendations of earlier education commissions, like Kothari commission, New Education Policy 1986, Radhakrishnan Commission [1959] have not been seriously implemented because of lack of independent taskforce.

4.5 The institutions will be successful which replace traditional bureaucratic approach in governance and management of academic institutes. Bureaucracy in institutions is no more relevant today, it should be abandoned forthwith. Indoctrination of ideas, rigid frame work, and inflexibility has no place in academics. They throttle emergence of spontaneous, breakthrough ideas. Higher & Technical education will be successful if it gives go bye to the present degraded policies and practices and pulls them up from the ruts and takes up to higher orbits.

4.6 If the reforms are delayed, foreign institutions are likely to establish education hubs in India & exploit the vast education market. Indian academics will then go in service of foreign masters. Consequence will be that Indians will be branded inefficient, incompetent and less knowledgeable to govern institutes in global context by themselves. They will become subservient to foreigners. Education may slip out of our hands in favor of foreign, which is too detrimental. Foreign universities once they come in India they will not remain limited to education but interfere in industrial, social & political affairs of the country. India will tend to become like Afghanistan and Pakistan. Foreign universities will not come if we become equal to them, hence is the importance of world class standard.

4.7 Institutions will win which view Professors as researchers, discoverers, innovators & creators [12]. They should be enabled to grow to the level they are capable for. They are a great force in pulling the nation forward. They are an insurance against obsolescence. They should be encouraged and enabled to discover new S&T, write books, research papers, obtain patents etc. How many of our professors have travelled abroad? How many have written books? How many have published articles in journals? How many have obtained PhD, patents & IPR? Then how shall we inspire younger generation to be innovative, creative? A saying goes" if there is no water in the well from where it will come in bucket"? A change in mind set of people who govern is the need of the hour.

4.8 Institutions will succeed which empower Professors with necessary freedom to think & act. This is essential in the interest of public at large. It is they who design & shape the future of the younger generation. They create tomorrow's leaders today. This is a very important job. This should be borne in mind by professors, planners and administrators. Institutions must have to be manned by high quality devoted people. They should be viewed beyond doubt.

4.9 Higher & technical education will take the nation forward where Professors are differentiated from government servants. They are think tanks. They are like race horses not like horses pulling carts. Institutions will be preferred by students which value not only acquisition of knowledge and storing it in brains but learning innovation skills, creativity and discovery skills and learning to discover unknown are given higher priority. *Students should learn*

to capitalize on technology, and knowledge. Institutions will win which make a paradigm shift in the teaching methods in the institutions making use of modern technologies like Computer, telecommunications distance education etc. This is found to bring down the cost yet improve effectiveness. Should we not permit more experimentation?

5.0 Financial Strategies:

India needs to increase education budget from present 3 % of GDP to 6 %, which has been announced by government way back in 1991, but not yet done. It should be realized that spending on education is far more rewarding. Not spending is a false economy, and certainly planning for failure. Not investing in education is more costly. Mediocre institutes are more costly than the cost of modernization. Do we realize this? It is the education which has failed India. But for education India has lagged behind. India in world eyes is a less educated country. If you do not upgrade the Higher & Technical Education, the economy will weaken, and outside elements may exploit. Let us remember that the institutes create the future. Bright future could be created only if institutes are made world class. Institutions in Malaysia, Thailand, and Indonesia are investing 10% of their GDP, in education. Why India cannot do?

5.1 Institutes will be successful which establish Technology Transfer offices.

The knowhow possessed by these colleges is very much needed by SSI's & SME's. The institutions should not run after only big industries that have their own R & D centers. Technical education Institutions, students & professors must adopt global perspectives, global mindset. They should attract talent & ideas, like magnet from everywhere and anywhere in the world. They must remain constantly in touch with their counterparts. The World experience tells us that high tech industries are flocking around the institutions which are able to generate new ideas and new technologies. Scientific institutions are a pre-requisite to industrial development. This model is being replicated in China, Japan, Philippines, and all over the world.

5.2 Institutions will win which harness strength of their alumni.

Alumni associations play a critical role in modernizing the institutes. No world class institute exists without active alumni association. They bring fresh ideas to institutes to remain in tune with world. So much is demanded from college that all alone an institute cannot give. It must be backed by ideas from alumni who are their ambassadors, scattered the world over. Regions/ Nations / cities will develop faster and better where the institutions are excellent. Regions without them even if endowed with plentiful natural resources do not develop well. Regions/ nations do not develop where scientific & Technological capability of institutions & people is limited. Putting more money & putting more men on the job is good but not enough. What is essential is using current & appropriate strategies, adopting flexible rules & regulations.

5.3 Nations will succeed more where innovation funds are provided for students studying in colleges. A national level as well as state level committee needs to be constituted in education to give boost to innovation. Potential of innovation in youths in colleges is high but unexplored. If they develop innovation skills in young age they use them lifelong. Education charged with spirit of discovery and innovation alone can move India forward. Future belongs to those who realize this. Government of India has recently appointed, 2011, a commission on Innovation under the chairmanship of Dr Sam Pitroda. States are advised to constitute similar commissions.

5.4 Nations will be progressive which establish new universities and colleges by following principles of scientific project management. This ensures optimum utilization of resources, in achieving the institutional objectives. The age old method of sanctioning resources, in government in a piece

meal manner is wasteful, besides missing Institutional targets. The old out dated practice should be abandoned forthwith.

In establishing world class institutions it is necessary to appoint subject wise **"Mentors"** from different universities across the world. It is they who by cross fertilization of ideas would create sound academic culture demanded by world around. Best of the professors' subject wise could be chosen and appointed as mentors on long term basis, for five years or so.

5.5 Higher & Technical education institutes will be in top demand where teaching and research are treated as inseparable [13]. Every teacher will be a researcher and every researcher a teacher. Nations will be winning in global competition where Government makes it a national agenda to educate "every one –life long- nonstop" and earmark budget for the same. Keeping skill set of people up to date is of paramount importance.

5.6 Nations will be successful where exclusive well focused technical universities exist. They are spear headed organizations capitalizing on technology. It is these universities which can take the nation forward at a faster pace. Earlier they are established better it is. Nations will win which recognize that education the world over is getting deregulated. It is more due to distance education, open course ware on internet, reducing monopoly of universities, for profit institutions etc. Multiple approaches in private and public sectors will grow. Last but not the least; nations will be successful which nurture today the young minds for entrepreneurship, so as to ensure that they become global players.

5.7 Modern technology can solve many problems in teaching and learning [14].

Do we teach the same old way we learned? It is high time to deviate by blending distance education methods, computer aided instruction, video films, etc with class room teaching. The new methods are cheap and more effective. Institutions will be successful which employ new technology for learning.

Conclusion

Foreign institutes are waiting at our doorsteps to enter. Some have already entered. If we delay reformation foreign universities may displace Indian institutes, and we may lose in international market.

Transformation and/or creation of a university/ college to research based, innovative world class status are a long journey. In competitive globalize world it is not now an option but compulsion.

The task in which world class institutions are engaged is

"The pursuit of learning is not the passive conveyance of information; it is the passing of torch, the sharing of the flame. It is igniting the spirit of leadership, entrepreneurship and innovation". It is not just learning known established facts but learning to discover unknown.

If the institutions trivialize that responsibility, if they reduce it to distributing the stale food of disarticulated information or limit it to sharing lifeless elements of technical competence, they will fail those who have entrusted them with responsibility, who have upheld their freedom, who have provided them resources, and who have supposed they were meant about doing a greater task. It is recommended that the concerned authorities become conscious of their moral responsibility and prove worthy.

Higher education drives and is driven by globalization. It has become a vibrant business. Strategies outlined in this paper should therefore be implemented forthwith.

How are world class institutions created? What is the world experience? India has a council of scientific research & industrial development. But it has no connection with universities and colleges. They must be

established forthwith.

Appointment of meritorious professors, subject wise to upgrade academic culture and create scientific ambience in institutions by appointing **Mentors** from leading institutions in the world should be done forthwith. They may be part time visiting, remaining in continuous touch at least on e-mail.

India desperately needs world class institutions which will provide new generations' creative, inclusive, inquiring, engaged and enabling leaders that will come out of the higher education institutions. Brave new India of tomorrow is being created today in these temples of knowledge. Well being of people critically depends on reforms in higher and technical education. Who will make millions of citizens fit to live in modern world? Who will create world class leadership fit to run a big country, India? It is the world class professors working in them who produce able leadership. It is this prestigious institution where world class leaders are produced. Therefore it must be challenged, critically examined and enabled to play an increasingly influential role in preserving traditional knowledge, and rewriting the book of new knowledge. Technology innovation clusters must be started in and around the institutes.

To explore innovation potential of young, innovation fund must be provided to colleges and polytechnics. Every professor should be given adequate fund for research, right from his appointment, which he should have to multiply further from funding agencies. It will increase innovation capacity of India. Full scope of innovation needs to be explored.

India's future, the future of children and grand children depends on the creation of the world class institutions. Large numbers of institutions in India today are mediocre who can produce only mediocrity, at best produce followers, soldiers fit for recruitment to do lower end jobs in the army of multinationals. At least a few better performing institutions must therefore be enabled forthwith and up graded to world class status. This is the only way for India to prosper, which TEQIP is aiming at. All other institutes must aim at that or else they stand a risk of falling behind. Nation is at risk for want of reformation to world class status. It is therefore recommended that TEQIP is implemented forcefully and expanded to cover many more institutions.

This is the public obligation of the government. How it fulfills the same decides the future.

If India does not create research based world class universities and colleges, India will be getting mediocre by international standard to run its national and international affairs.

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