
A SCIENTIFIC APPROACH IS INDISPENSABLE FOR INDIAN SOCIETY

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ABSTRACT

A scientific and technical development is pre-requisite for sustainable development in a plural society. The global challenges arisen due to rapid development of science and technology in the world. To face these challenges, India will have to focus on the development of higher education, research & development. India will have to enhance its financial resources to education in general and higher education, research & development in particular.

Keywords: Stakeholder, Harmonious, Mushrooming.

I. INTRODUCTION

Bridging science with society and reaching development of science and technology to every stratum of the social-system and making scientists aware of the concerns and expectation of general public is the key for conflict free harmonious sustainable development & economic growth in a plural society. A close examination of the causes of clashes between science or government with people, no matter whether it is nuclear power, stem cells or genetically modified crops, are the result of the shortage of effective and honest communication between scientists, policy makers and the public. In many contexts, people consider science and technology as unapproachable and show little interest in understanding rationales and facts, despite the fact that in currant era, a few aspects of human life are left uninfluenced by science and technology. Meanwhile, in many a situation scientists and policy makers also failed in understanding the mindset of the people and the need for communicating science and policies in a language understandable to all the stakeholders. This approach has resulted in resistance by the society against the implementation of many science and technology policies in India, which could prove to be beneficial to meet the current and future challenges facing India.

II. EDUCATION SYSTEM IN INDIA

India right after independence, committed to developing Scientific temper as one of the fundamental pillars of modernization. However, due to unique multi-cultural and multi-strata nature of its society, communicating paradigm, changing science or policies to the society has not been achieved. This scene is further complicated by the multiple value systems, economic and educational inequality, visible urban-rural divide and the top down rather than evidence-based approach followed in implementation of policies. Besides, today the complexity of science and technology has reached such a level that it requires the support of specialists and integration of the approaches from science, social-science and humanities to make people understand the merits and de-merits of existing and new technologies on a periodic basis. Such an inter-disciplinary approach is gaining strength in India like in other developed countries.

National Institute of Advanced Studies is one such leading institutions in the country that aims for the promotion of inter-disciplinary research. Our efforts have been to bring luminaries in the field of science, technology, social-science and humanities under one umbrella and have a dialogue to converge different knowledge systems so that we are able to come up with more effective strategies and solutions for solving problems facing India. According to Henry Wadsworth Longfellow "A single conversation across the table with a wise man is better than ten years mere study of books", and is true in the case of communication also.

In India, science and education occupy an extremely important position. Unfortunately, today the education scenario in this nation is something of serious concerns and future progress is doubtful if this situation does not improve. First, let us look at the school education in the country. The quality of schools needs to be improved a lot. At present, we have more than one lakh schools in Uttar-Pradesh. There are schools where teachers do not appear at all during the year. The quality of education at school level in India is about 100 odd in world ranking, whereas the U.S.A. is ranked about 25 or 30. The highest quality school education in the world today is in a small country "Finland" followed by South Korea. The reason they are doing so well in school education is

because of extraordinary importance given to teachers and teaching. Teachers are highly respected in these countries compared to India where teaching profession is one that is sought after when nothing else is available. The teachers are extremely well paid in Finland where it is extremely easier to become an administrator, which is opposite to what is happening in India. In olden days, the amount of fees paid starting from school to college level was not much better than that in colleges. Since the quality of teaching in schools and colleges is not good, there is mushrooming of coaching institutions and tutorial classes. A parallel education system exists and this issue needs to be addressed on an urgent footing. Let us look at school education in rural India, which is good in Kerala. The enthusiasm among children in rural India is heartwarming but they get nothing – they go to schools which are in bad shape. The silver lining in school system in rural India is 'Jawahar Lal Nehru Navodaya Vidyalaya'. When Rajiv Gandhi was prime-minister, it was decided to start Navodaya Vidyalaya which was also supported by the following government of Vishwanath Pratap Singh. Every state of India had these schools except Tamil Nadu. There were 520 of them all over India. The promise of opening more Navodaya Vidyalaya by the previous government did not take shape. School Education needs urgent attention since in about 10 to 15 years we will have another 3 to 4 crores more children coming for education.

The marks system should be replaced by grading system. Creativity requires different type of mindset and those who are creative may not get very high percentage. Michael Faraday & Newton may not pass these examinations. The depressing education scenario is due to several competitive examinations, and mark system, failure in such examinations lead to frustration among students. The urgency is to open new and better schools in rural India and improve the quality of teaching. At a higher level, people in universities and colleges are so hardened that they are so insensitive to low quality. It is clear from various reports on ranking of higher institutions that not a single institution of higher education got the position under 200 of the world ranking. This issue is not so significant compared to the problem of non-existence of several top-quality universities/institutions in the country. Last academic year we admitted roughly 10 lakh students to engineering colleges in India whereas the entire U.S.A. admitted about 80,000 (only 8% to that of India). Most education is such that it does not produce quality people, neither does it produce outstanding people who excel in their field. Most people take up education for employment. We seem to produce in numbers, but not of quality, no expertise is produced in specific areas. Percentage of GDP invested in education should be increased from 4 percent to 6 percent. The Kothari Commission has also recommended that at least 6 percent of the GDP should be invested on education (1968).

Industry should not feel that education is government's problem alone. Do you know the example of South Korea which is today because of extraordinary invested in education and equally high investment in science where almost 8 percent of the GDP is invested in education and only Science gets 4 to 5 percent of the GDP. However industrial contribution to education is marginal in India. About 20 to 25 years ago, India contributed 2.5 to world science and China 2 percent. China has grown to be such huge contributor in terms of quantity, it is almost 14 to 15 percent of the world contribution to science now. China has already overtaken or about to overtake America in terms of the quantity of Science Published. Almost two third of the input of publications come from China. They want to produce 30,000 Ph.D. per year. At present, China is producing more than 20,000 Ph.D. scholars in various stream.

Those who want to succeed have to work very hard beyond the call of duty. There is so much to be done and so difficult to do. Indians as a race, Indians as a community are quite capable. There are amazing example of C.V. Raman and J.C. Bose who have made ground breaking contributions by working in India. The challenges before us are to deal with education at school level, college level, problems with examination and marks-system, multiple entrance examinations and competitive examinations. Our funding system should improve. We should encourage our faculty members to innovate and set up companies. Positive encouragement should be given to the industry to invest in the sector of education and tax incentives should also be given for the promotion of positive atmosphere in education sector.

III. CONCLUSION

The system of education particularly higher education all over the world has to meet the challenges through by the entry of global competition by evolving a well-considered policy of dealing with the situation. It is also imperative to bring about modification in our administrative, academic and financial system governing the

educational institutions. We can no longer afford to live in an exclusive world of our own, regardless of the rapid changes occurring across the developing and the developed countries. In order to survive in the emerging international scenario in the field of education, as also in other sector, we have to be much more dynamic, progressive and alive to these changes, so that we are not left behind in the race for socio-economic and educational advancement. We have to ensure that our educational system is adequately responsive to the emerging challenges and taking steps to bring about the requisite changes, which would enhance the potentiality of our educational institutions to meet those challenges.

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