

## **SCIENCE, TECHNOLOGY AND INNOVATION (STI) POLICY 2013 : OBJECTIVE ASSESSMENT**

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The Prime Minister Dr. Manmohan Singh unveiled a new Science Technology and Innovation (STI) Policy on the occasion of the centenary year of Indian Science Congress on January 3, 2013 in Kolkata. One of the key goals of the STI policy is to develop science, technology and innovation with focus on faster, sustainable and inclusive development for the people. The policy speaks of

- i) promoting scientific temper amongst all sections of the society,
- ii) making careers in science, research and innovation an attractive career option particularly for bright young minds,
- iii) establishing world class infrastructure for R&D and increasing India's contribution to global scientific publications from 3.5% to 7%
- iv) creating an environment for enhanced private sector participation in R&D

to mention a few.

In principle, the policy promises significant boost to a largely demoralized science and technology community in the country. However, the methodology to achieve such goals and the possible outcome, if any, on a developing nation like India needs to be studied in greater details. Developing scientific temper among the vast majority of our population is a desirable but difficult target, keeping in view the impact of religion and caste-based policies of some state governments as well as national political forums. The STI-2013 objective of empowering women through appropriate STI inputs comes at a time when proper representations of women in different policy making positions are inadequate. National statistics of women in key government institutions of science and technology present glaring disparity in representation even after more than five decades of independence. This may be expected in a society caught between the idealisms of 'equal entitlement' and the glitz and glamour associated with the so-called 'shining India' concept. It should be kept in mind that there are not enough calories per head for a vast majority of Indians with 43% of Indian women being anaemic and 67% starved of calories.

It is widely felt that the need of the hour is a society with free and fair questioning freedom where cultivation of science can flourish as a secular entity. Scientific careers with proper infrastructure attempts to reverse the so-called 'brain-drain' at a time when recruitments to major central as well as state academic institutions have been reduced to a trickle. On one hand, some of the best scientific minds in the country are promoting intelligent system revolution whereby 'perception computing' becomes feasible, there has been a value inversion of the societal mindset where socio-economic constraints and parental pressure often leads meritorious students to off-shore lucrative assignments which essentially reduces them to 'IT coolies'.

Cases of plagiarism and other academically unethical practices, which are rampant in the country, should be tackled firmly as we plan to double our scientific contribution during 2010-20 ambitiously named the Decade of Innovation. It is to our great dishonor that Indian science and technology research are currently filtered with softwares to check similarity with earlier work, an ignominy perhaps bestowed on us by treating API scores as an index for career advancement. Efforts should be made to create an 'enabling environment' for percolation of scientific morals among vast sections of the society. The essential 'moral unneutrality' of science should help the science and technology community to be scientifically correct not only as a collective entity but also in individual capacity.

Private sector participation in R&D will be effective only when certain control will be exercised by the central government in the ways and means of such participation. Indiscriminate entry of private enterprises in education, who have a strict profit-making objective, has led to campuses with multi-national joints in cafeteria but insufficient and inexperienced teachers. Non-existent laboratories and other essential infrastructure flourish based on which accreditations are often provided by reputed government agencies.

The new STI policy does not undertake the arduous task of a rigorous SWOT analysis of previous policies before charting out new paths for the future. Careful analysis of past performances and targets achieved should have been done so as to understand the reasons behind those policies being non-starters. Instead of following a cognitive approach prior to framing new guidelines so as to identify deficiencies of its predecessors, the new STI policy puts forward a bouquet of catchy phrases without delving too deep into the mechanism of its implementation. Indian R&D scenario has its own characteristics laying equal emphasis on basic as well as applied researches. Efforts to channelize young and innovative human resources towards industry driven goals may deprive the academia of original research fervor. It tries to disengage itself from earlier blemishes and attempts to garner accolades through private stakeholders in Indian R&D scenario. An objective SWOT (Strength Weakness Opportunities and Threat) analysis of prior science technology policies should be conducted so that a cognitive understanding could be developed and carried forward.

It is imperative that FOSET being a platform of science and technology-minded people should generate opinion within its own ambit as well as outside on the advantages and associated pitfalls of an STI policy which tries to shrug itself off all responsibilities of earlier science-technology policies. FOSET should act as an agency to mobilize ideas and act as pressure group at this critical juncture as the country struggles to come to terms with superficial upliftment of human standards of living.