

Science and higher education-related legislature before Parliament

Several Bills relating to science and higher education are before Parliament.

The list of Government businesses identified related to the science and technology (S&T) and Human Resource Development (HRD) for being taken up in the Budget Session, 2011 is broadly divided in two categories: Bills for consideration and passing (Table 1) and Bills for introduction (Table 2).

To regulate the import, manufacture, export, sale, transport, distribution, quality and use of pesticides with a view to

control pests, ensure availability of quality pesticides, allow its use only after assessing its efficacy and safety, minimize the contamination of agricultural commodities by pesticide residues, create awareness among users regarding safe and judicious use of pesticides and to take necessary measures to continue, restrict or prohibit the use of pesticides on reassessment with a view to prevent its risk on human beings, animals or environment, and for matters connected therewith or incidental thereto, The Pes-

ticides Management Bill, 2008 was proposed. The total consumption of pesticides in the country was around 55,000 tonnes in the year 2006–2007 (http://www.dacnet.nic.in/eands/At_Glance_2008/ch_15/tb15.3.xls (table 15.2)). Andhra Pradesh, Haryana, Punjab and Uttar Pradesh account for around half the pesticides consumed¹. A Joint Parliamentary Committee set up in 2003 to probe the issue of pesticide residues in soft drinks, had recommended changes to the Insecticides Act, including the mandatory

Table 1. Bills for consideration and passing in the Budget Session, 2011

Short title	Introduced	Status
Lok Sabha		
The Institute of Technology (Amendment) Bill, 2010	30 August 2010	Standing Committee report on 26 November 2010, Passed by LS on 24 March 2011
The Academy of Scientific and Innovative Research Bill, 2010	30 July 2010	Standing Committee Report on 13 December 2010
The Educational Tribunals Bill, 2010	3 May 2010	Standing Committee report on 20 August 2010. Passed by LS on 26 August 2010
The Foreign Educational Institutions (Regulation of Entry and Operations) Bill, 2010	3 May 2010	Standing Committee granted time up to 31 May 2011
The National Accreditation Regulatory Authority for Higher Educational Institutions Bill, 2010	3 May 2010	Standing Committee granted time up to 30 June 2011
The National Institutes of Technology (Amendment) Bill, 2010	15 April 2010	Standing Committee report on 30 September 2010
Rajya Sabha		
The National Institute of Mental Health and Neuro Sciences, Bangalore, Bill, 2010	7 December 2010	Standing Committee report on 4 March 2011
The Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry (Amendment) Bill, 2010	5 August 2010	Standing Committee report on 10 November 2010
The Protection and Utilization of Public Funded Intellectual Property Bill, 2008	15 December 2008	Standing Committee report on 28 June 2010
The Pesticide Management Bill, 2008	21 October 2008	Standing Committee report on 18 February 2009
The Drugs and Cosmetics (Amendment) Bill, 2007	21 August 2007	Standing Committee report on 21 October 2008

Report on the 25 March 2011.

Table 2. Bills listed for introduction in the Budget Session, 2011

Short Title
The Agriculture Biosecurity Bill, 2011
The Biotechnology Regulatory Authority of India Bill, 2011
The Establishment of Regional Centre for Biotechnology Bill, 2011
The Wildlife (Protection) Amendment Bill, 2011
The Narcotic Drugs and Psychotropic Substances (Amendment) Bill, 2011
The National Commission for Human Resources for Health Bill, 2011
The National Academic Depository (Amendment) Bill, 2011
The National Council for Higher Education and Research Bill, 2011
The Universities for Innovation Bill, 2011

fixation of tolerance limits for pesticide residues on crops².

For promoting safe use of pesticides, this Bill seeks to regulate the manufacture, inspection, testing and distribution of pesticides. It establishes a system of licensing as well as the setting up of a registration committee to register pesticides. No pesticide can be registered unless tolerance limits for its residues on crops and commodities are specified under the Food Safety and Standards Act, 2006. The Bill does not specify penalties for pesticide inspectors or analysts who misuse their powers. The Standing Committee has recommended that penalties be imposed on such Government officers along the lines of similar provisions in the Drugs and Cosmetics Act, 1940 or the Food Safety and Standards Act, 2006.

The Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry (Amendment) Bill, 2010 was introduced in the Rajya Sabha on 5 August 2010. The Bill was referred to the Standing Committee on Health and Family Welfare, which was scheduled to submit its report by 31 October 2010. The Bill seeks to amend the Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry Act, 2008, which declared it as an institution of national importance. Before the Act came into force, the institution was operating under the Ministry of Health and Family Welfare. The Act gave its employees the option of remaining with the autonomous institution or opting out and remaining as a Central Government employee. The employees had to exercise this option within one year. The Bill extends this period to two and a half years, and allows the employees who have already chosen an option to exercise it afresh.

Presently, disputes between educational institutions and students or staff are adjudicated by internal dispute redressal mechanisms. Most universities have set up such a mechanism³. Some states such as Gujarat, Maharashtra and Jharkhand have enacted laws to set up tribunals for adjudicating teacher-management disputes⁴. These tribunals generally have appellate jurisdiction. From the tribunals, cases can be appealed in the High Courts and Supreme Court. The idea of setting up educational tribunals to adjudicate education-related disputes was first mooted by the National Policy on Education, 1986 (ref. 5). The

Law Commission of India's 123rd Report in 1988 made a detailed study and concluded that a three-tier structure of tribunals is necessary to effectively handle disputes in the education sector. The Supreme Court in 2002, T. M. A. Pai judgement and the Yash Pal Committee Report of 2009 also recommended setting up educational tribunals⁶.

The Educational Tribunals Bill, 2010, was introduced as part of the suite of Bills seeking to reform the higher education sector in the country. This Bill establishes Educational Tribunals at the national and state levels to expedite adjudication of disputes in the education sector. These include disputes involving teachers and other employees of higher education, and other stakeholders such as students, universities (including foreign education providers) and statutory regulatory authorities. One of the stated purposes of the Bill is to provide for speedy resolution of disputes because of increased litigation. However, no data on the number of pending cases is available in the public domain. The Standing Committee has made several recommendations. They suggest that there should be flexibility in the number of tribunals in each state, and each such tribunal should have five members.

The Institute of Technology (Amendment) Bill, 2010 was introduced in the Lok Sabha on 30 August 2010. The Bill seeks to amend the Institutes of Technology Act, 1961, which declares certain Institutes of Technology to be institutions of national importance. The Bill seeks to add eight new Indian Institutes of Technology in Bhubaneswar, Gandhinagar, Hyderabad, Indore, Jodhpur, Mandi, Patna and Ropar. It also seeks to integrate the Institute of Technology, Banaras Hindu University within the ambit of the Act. All these institutions shall be declared as institutions of national importance. This Bill allows the Central Government to notify zones in the country. Each institute has the duty to support and collaborate with technical education institutions that fall within its respective zone to enhance their quality. It shall also advise the State Government and the Union Territory in the matter of technical education within its zone.

The National Institute of Mental Health, 2010 Bill was introduced to declare The National Institute of Mental Health and Neuro Sciences, Bangalore, to be an institution of national impor-

tance and to provide for its incorporation and matters connected therewith. The objects of the Institute shall be to develop patterns of teaching in undergraduate and postgraduate medical education in all its branches with a focus on mental health, neuro sciences and allied specialties so as to demonstrate a high standard of medical education, to bring together, as far as may be, in one place educational facilities of the highest order for the training of personnel in all important branches of health activity, to attain self-sufficiency in postgraduate medical education, and to meet the country's needs for specialists and medical teachers, particularly in the field of mental health, neuro sciences and allied specialties.

On 30 July 2010, The Department of Scientific and Industrial Research, Ministry of S&T, introduced the 'Academy of Scientific and Innovative Research Bill, 2010' in the Lok Sabha with the purpose to establish the Academy of Scientific and Innovative Research (AcSIR), as an institution of national importance with powers to award degrees. The Cabinet had approved the proposal for setting up the AcSIR as an institution for imparting instruction and awarding degrees in frontier areas of S&T. The Government has also approved that an interim Academy be established even before the enactment of the comprehensive legislation for setting up the Academy, so as to initiate its academic session by August–September 2010. It is proposed to set up AcSIR for substantially increasing the number of researchers in integrative and interdisciplinary areas of science and engineering in a cost-effective manner, without requirement of any significant gestation period and additional funds from the Government. The Academy would offer a one-stop solution to meet the above requirements in higher education by leveraging the strengths of the Council of Scientific and Industrial Research comprising around 4500 scientists in diverse branches of science and engineering, and utilizing its research and development infrastructure.

According to Foreign Educational Institutions (Regulation of Entry and Operations) Bill, 2010, every foreign educational institution intending to operate in India has to be notified as a foreign educational provider by the Central Government on the recommendation of the Registrar/Secretary of the University Grants Commission (UGC). Foreign edu-

educational providers have to maintain a corpus fund of a minimum of Rs 50 crores. Up to 75% of any income generated from the corpus fund shall be utilized for developing its institution in India and the rest should be put back in the fund. The Central Government may exempt any institution, on the advice of the Advisory Board, from conforming to the requirements of the Bill, except the penalty provision and the ban on revenue repatriation. The Bill was referred to the Standing Committee on HRD, which was chaired by Oscar Fernandes on 14 May 2010.

The debate over whether foreign educational institutions should be allowed to operate in India is divided into three camps. The opponents argue that it would lead to commercialization of higher education, which would lead to withdrawal of the Government from the sector. It would also increase the disparity of access to quality education between the rich and the poor⁷. The proponents argue that it would increase choices for students, enhance competition in the sector with potential for qualitative improvement in the Indian educational institutions, provide technical skills for the job market and retain some of the funds that flow overseas⁸. Some experts take a middle view arguing that foreign institutions should have limited entry so long as certain concerns over the quality of the education provided, the type of subjects that would be taught, and the possibility of faculty moving from Indian institutions are addressed⁹. Presently, higher educational institutions are accredited by the National Assessment and Accreditation Council and the National Board of Accreditation. These are autonomous bodies set up by UGC and the All India Council of Technical Education (AICTE) respectively¹⁰.

The National Accreditation Regulatory Authority for Higher Educational Institutions Bill, 2010 makes it mandatory for every higher educational institution (other than agricultural institutions) and every programme conducted by it to get accredited by an accreditation agency in order to certify academic quality. Assessment of such accreditation has to be made before the institution starts the process of admission to such programmes. Existing educational institutions have to get their accreditation within three years (five years for medical institutions). The Bill establishes a National Accreditation

Regulatory Authority for Higher Education, which shall register and monitor accreditation agencies. These accreditation agencies shall accredit every higher educational institution based on a specified procedure and fees. An accreditation agency has to be a non-profit organization, which is controlled by the Central or State Government. The proposed mechanism of accreditation raises two major issues: whether it will create a healthy regulatory environment; and whether a regulator is required.

The Indian Science and Technology Policy, 2003 aims to maximize the incentives for generation and protection of intellectual property and provide a policy environment for domestic commercialization of such inventions to serve public interest; and to raise the level of investment in S&T to at least 2% of GDP with the help of the industry¹¹.

Presently, the intellectual property created in Government-funded research institutions is governed by the terms of the funding agreement. The 11th Five Year Plan states that an appropriate legislative framework is needed for incentivizing the innovators and commercialization of public-funded R&D, where the Government, the recipient, the investor and the public benefit from the protection and commercialization of intellectual property¹². The National Knowledge Commission recommends that a law be enacted to create a uniform legal framework for Government-funded research and give universities and research institutions ownership and patent rights. This would create an enabling environment to commercialize such inventions through licensing arrangements where inventors would also be allowed to receive a share of the royalty¹³.

In this regard, The Protection and Utilization of Public Funded Intellectual Property (PFIP) Bill, 2008 was designed, which seeks to provide incentives for creating and commercializing intellectual property from public-funded research. The Bill requires the scientist who creates an intellectual property to immediately inform the research institution. The institution shall disclose this information to the Government within 60 days. The institution is required to inform the Government of the countries in which it proposes to retain the title to PFIP. The scientist shall be paid a minimum of 30% of net royalties received from PFIP. Failure of the scientist to intimate the

institution and of the institution to inform the Government carries penalties, which include fines and recovery of the grant funds.

The Standing Committee on Health and Family Welfare submitted its 30th Report on The Drugs and Cosmetics (Amendment) Bill, 2007 on 21 October 2008. The Committee feels that the physiological and therapeutic impact of drugs and cosmetics on human bodies is completely different. Therefore, trials for drugs should be separate from those of cosmetics. The Committee thus recommended that there should be a separate set of provisions for clinical trials for regulating the dermatological safety of cosmetics. The Committee also suggested that a separate definition of clinical trial for medical devices may be included in the Bill. The Committee also feels that only new drugs should be subjected to clinical trials. It strongly recommended that a dedicated division according to the Mashelkar Committee report may be set up to deal with regulation, licensing, surveillance and monitoring of medical devices. The definition of medical devices should also be brought in line with the definition of Global Harmonization Task Force.

The Mashelkar Committee had recommended that the existing Central Drugs Standard and Control Organization (CDSCO) be strengthened and equipped properly, rather than creating a new authority. The Standing Committee thus recommended that CDSCO be strengthened and restructured as the Central Drug Administration, which shall be an independent body under the Ministry of Health and Family Welfare. The Mashelkar Committee had drawn a roadmap for centralization of licensing in three phases. It had stated that the exercise should be complete within three years. However, the Ministry indicated that it might take 5–10 years to switch to the centralized licensing system. The Standing Committee recommended that the roadmap drawn by the Mashelkar Committee be followed for a speedy switch-over. The Standing Committee also suggested that the appellate authority for grievance redressal should be placed in the zonal and sub-zonal offices of the licensing authority so that small-scale pharma units do not face any problems. The Standing Committee is of the opinion that the Central Government would need to put substantive additional funds

to strengthen CDSCO. The Standing Committee recommended that the Drugs Technical Advisory Board should be retained, since it is a technical body with representation of experts from various fields, whose main function is to advise the Government.

Out of the nine bills for introduction, The Agricultural Biosecurity Bill, 2011 seeks to provide for prevention, control, eradication and management of plant pests and diseases, animal diseases and unwanted organisms for ensuring agricultural biosecurity.

The much awaited National Biotechnology Regulatory Authority of India Bill, 2010 (NBRA Bill) is being introduced to establish the Biotechnology Regulatory Authority of India to regulate research, import, transport and use organism and products produced from modern biotechnology. It seeks to set up NBRA as an independent, autonomous, statutory agency to safeguard the health and safety of the people and to regulate the safe development and deployment of biotechnology products and processes in the country. Once in place, the Authority will have overriding powers on matters related to the development and deployment of biotechnology products and processes in the country.

At the same time, the Establishment of Regional Centre for Biotechnology Bill, 2011 is being introduced to establish a regional centre of biotechnology for education, training and research that could be an international nodal point for biotech sciences at the interface of multiple disciplines and to provide for matters connected therewith and incidental thereto.

Likewise, The Narcotic Drugs and Psychotropic Substances (Amendment) Bill, 2011, to amend certain provisions

of the Narcotic Drugs and Psychotropic Substances Act, 1985 (61 of 1985); The National Commission for Human Resources for Health Bill, 2011, to regulate the availability of quality of medical education in India, and The National Academic Depository (Amendment) Bill, 2011, to provide for establishment of a National Academic Depository for dematerializing academic awards and certificates and their maintenance in a Central database in electronic form are important Bills for introduction.

The Wildlife (Protection) Act of 1972, has been amended more than four times with some major initiatives in the recent past, like expansion of the term 'Protected Area' to include two new kinds of wildlife conservation areas (Conservation Reserve and Community Reserve, which creates some scope for community involvement, more so in case of the latter), and to create the National Tiger Conservation Authority. Now, the Government of India has decided to go for some additional amendments and the Bill is ready for introduction.

The National Council for Higher Education and Research Bill, 2011, seeks creating an umbrella body overarching all present bodies looking after higher education, including UGC, AICTE and other similar bodies.

The Universities for Innovation Bill, 2011, will prepare the ground for the creation of innovation universities. These universities will have to establish a University Endowment Fund, but will have the freedom to receive donations, contributions from alumni and other sources of income as long as 80% of the annual inflow is used for the development of research infrastructure.

Surprisingly, an important Bill like the Assisted Reproductive Technology (Regu-

lation) Bill to regulate thousands of infertility clinics that have mushroomed in the country over the past several years, is not included for this session.

1. For State-wise consumption up to 2004-05; see <http://cibrc.nic.in/pestconsum.htm>.
2. Report of Joint Committee on Pesticide Residues in and Safety Standards for Soft Drinks, Fruit Juice and other Beverages; <http://parliamentofindia.nic.in/ls/jpc/jpc-prsfb.htm>
3. The 123rd Report of the Law Commission of India, January 1988.
4. The Gujarat Affiliated Colleges Services Tribunal Act, 1982; The Maharashtra Universities Act, 1994 (Sections 58 to 70); The Jharkhand Education Tribunal Act, 2005.
5. National Policy on Education, 1986.
6. T. M. A. Pai Foundation and others vs State of Karnataka and others, Writ Petitions (C) No. 317 of 1993, 25 November 2002 and Yash Pal Committee Report, 2009.
7. Chowdhury, K., *India Today*, 18 May 2010.
8. *The Indian Express*, 16 March 2010.
9. Report of The Committee to Advise on Renovation and Rejuvenation of Higher Education, 2009.
10. Consultation Paper, Planning Commission, Government of India, 18 August 2006.
11. Science and Technology Policy, 2003, Government of India.
12. Eleventh Five Year Plan: 2007-12, Planning Commission, Government of India.
13. Recommendations on Legal Framework for Public Funded Research, National Knowledge Commission, 16 January 2007.

Jaimini Sarkar (*S. Ramaseshan Fellow*).
e-mail: jaimini_dhane@hotmail.com