

PARLIAMENT OF INDIA

RAJYA SABHA

DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON SCIENCE & TECHNOLOGY, ENVIRONMENT & FORESTS

TWO HUNDRED TWENTIETH REPORT

ON

THE ACADEMY OF SCIENTIFIC AND INNOVATIVE RESEARCH BILL, 2010

**(PRESENTED TO THE RAJYA SABHA ON THE 13TH DECEMBER, 2010)
(LAID ON THE TABLE OF THE LOK SABHA ON THE 13TH DECEMBER, 2010)**

**RAJYA SABHA SECRETARIAT
NEW DELHI
DECEMBER, 2010/ AGRAHAYANA, 1932 (SAKA)**

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**MEMBERS OF THE DEPARTMENT-RELATED PARLIAMENTARY
STANDING COMMITTEE ON SCIENCE & TECHNOLOGY,
ENVIRONMENT & FORESTS (2010-11)**

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SECRETARIAT

Dr. D.B. Singh, Joint Secretary
Shri Alok Chatterjee, Director
Shri V.S.P. Singh, Joint Director
Shri Girija Shankar Prasad, Assistant Director

* Nominated w.e.f. 21st September, 2010

PREFACE

I, the Chairman of the Department-related Parliamentary Standing Committee on Science & Technology, Environment & Forests, having been authorized by the Committee to present the Report on its behalf, present this Two Hundred Twentieth Report on "The Academy of Scientific and Innovative Research Bill, 2010.

2. In the meetings of the Committee held on 22nd, 28th, 29th, October and 18th November, 2010; the Secretaries of the Ministries/Departments of Government of India viz. Department of Scientific and Industrial Research and Legislative Department & Department of Legal Affairs (Ministry of Law & Justice) and Department of Atomic Energy; besides various experts, organization; tendered oral evidence on the various aspects related to "The Academy of Scientific and Innovative Research Bill, 2010".

3. The Committee expresses its thanks to the Officers of the Ministries/Departments of Government of India and experts/representatives for rendering their valuable views/clarifications sought by the Members of the Committee.

4. In the meeting held on 8th December, 2010 the Committee considered the draft report and adopted the same.

NEW DELHI
December 8, 2010

DR. T. SUBBARAMI REDDY
CHAIRMAN
Department-related Parliamentary Standing
Committee on Science & Technology, Environment & Forests

REPORT

Academy of Scientific and Innovative Research Bill, 2010

The Chairman, Rajya Sabha, in consultation with the Hon'ble Speaker, Lok Sabha, referred* 'The Academy of Scientific and Innovative Research Bill, 2010'(Annexure-I) as introduced in Lok Sabha on 30th July, 2010 and pending therein, to the Standing Committee on Science & Technology, Environment & Forests for examination and report.

2. The Committee held its first meeting with the Secretary and other senior officials of the Department of Scientific & Industrial Research on the 22nd October, 2010, for a preliminary discussion on the various provisions of the Bill. In all, the Committee held four meetings to hear various experts, organizations and Secretaries of the concerned Ministries/Departments on the various aspects of the Bill on the 22nd, 28th, 29th October and 18th November, 2010.

3. Considering the significance of the Bill, the Committee also issued a Press Release in the national dailies and other regional newspapers on the 23rd September, 2010, inviting memoranda containing

*Rajya Sabha Parliamentary Bulletin Part-II dated 15th September, 2010.

suggestions/ views/ comments of experts/ institutions/ organizations interested in the subject matter of the Bill. In response to the Press Release, the Committee received 13 memoranda on the Bill, which were examined and out of these 8 memoranda were found to be substantive in nature, which were circulated to the members for perusal and also forwarded to the Department of Scientific & Industrial Research for their comments/observations. The comments of the Department were also circulated to the Members of the Committee.

4. The Committee heard the views of a number of experts *viz.* Prof. V.S. Ramamurthy, Former Secretary, Department of Science & Technology, Prof. Deepak Pental, ex-Vice Chancellor, University of Delhi; Prof. Sukhadeo Thorat, Chairman, University Grants Commission and Prof. Dinesh Singh, Vice-Chancellor, University of Delhi. The Committee also heard the representatives from the Confederation of Indian Industry(CII), to know about the views of the Indian industry towards the proposed legislation.

5. Since the proposed Bill is likely to have far reaching consequences on the scientific scenario, the Committee also heard the views of Secretaries of the Ministries/Departments of Government of India *viz.* Legislative Department & Department of Legal Affairs (Ministry of Law & Justice) and desired to know from them the reasons for issuing a notification for setting up an interim Academy even though the Bill was to be passed by the Parliament. The Committee also heard the views of the Department of Atomic Energy to elicit its opinion on the Bill.

6. The Committee took up clause-by-clause consideration of the draft report on the 8th December, 2010. Fourteen Members attended the meeting on that day and adopted the report by broad consensus.

7. Background of the Bill

7.1 The concept of what ultimately constitutes economy or wealth in national perspective keeps on changing with the passage of time. There was a time when resource – mineral, material, low cost labour and technology, etc. were *sine quo non* of a rich and thriving economy but today it is no more so. Today knowledge is economy and it is said that the country's prosperity can be measured by the number of Engineering PhDs it produces. That also partly explains why small nations like Israel, Sweden, Japan, Korea etc. are doing so well in terms of economic advancement.

7.2 The Committee was informed that prior to 1950's, Universities of Calcutta, Madras and Bombay together with Indian Institute of Sciences, The Bose Institute, The Indian Association for the Cultivation of Science and after that a long line of Universities and Institutions provided fertile ground for nourishing and developing science in India. In 1950's, a chain of national laboratories came up to shape the future of science in the country. When the nation wanted to achieve self-reliance in area of science & technology in the wake of denial of technology, National Laboratories became the major driving force in this endeavour between 1970's and 1990's and did a wonderful job in strategic sector. Till 1990, India produced more PhDs than China, Korea or other Asian countries. But post 1990, the scenario started changing and at present the position is that despite institutions like IITs and Indian Institute of Sciences (IISC), India has a severe shortage of PhDs in the field of Science and Engineering. As per the data made available to the Committee, India produced around 8,420 PhDs in Science and Engineering combined, as compared to 22,953 in China; 3,779 in South Korea; 9,961 in U.K. and 30,452 in U.S.A. in 2006. In

Engineering Science, India produced only 1,058 PhDs as against 12,130 in China; 2,267 in South Korea; 2,204 in U.K. and 7,402 in U.S.A.

7.3 The Committee was informed as to why even developed countries were stressing on generating more and more PhDs but in India even, IITs were not able to attract a very large number engineering PhD students. If such a shortage persists, it would seriously affect our global competitiveness and economic growth in the long run.

7.4 The Committee was also informed that the turn around in number of PhDs in China had been mainly because of Chinese Academy of Science which had 92 national laboratories and is structurally similar to CSIR which has 37 laboratories. The Chinese Academy of Sciences carries out academic activities and has produced a large number of PhDs through its Graduates University of Sciences and the University of Science & Technology of China.

7.5 Keeping this background in view, the Academy of Scientific and Innovative Research Bill, 2010 has been formulated, mainly to keep pace with other countries in producing more PhDs in the field of integrative and inter-disciplinary areas of science and engineering.

8. Need of the Bill

8.1 It is a well known fact that future leadership in the area of science and engineering depends largely on the number of educated and trained manpower in inter-disciplinary and integrative areas of science and engineering. It is also a fact that there is a serious shortage of workforce for the knowledge based wealth generation in India and this is because of the fact there is a shortage of institutions which offer advanced courses in the field of inter-disciplinary study and research. When the Committee inquired from the Secretary, Department of Scientific and Industrial Research, 'What is the necessity of this Bill and how is the situation going to change with the establishment of this Academy', the Secretary replied that there was abundant availability of young students who were keen and eager to pursue higher studies in frontier and trans-disciplinary areas. He cited an example by saying that this year environmental engineering started a programme called 'Environmental Modeling and Optimization – a Post Graduate Programme' and number of applications received for B-Tech. was 852 for only 8 seats, which roughly works out to more than 100 applications per seat. He added that this showed that if we were going to give a formal degree, there was a huge demand and this taking away 8 out of 800 available was a very small number and the country needed more. He further added that to rejuvenate engineering laboratories in the CSIR system, there were not enough PhDs available. We do not have PhDs, to meet our requirement, produced and that is why the Post Graduate Research Training Programme was started all over the 10 engineering laboratories. The students are so excited and so happy that they have sent emails all over the country and their juniors have now rushed this year raising the number of applications to 26,600 for only 110 positions.

8.2 Unless ample and adequate opportunities are created indigenously, there is a possibility of India losing a large number of students interested in inter-disciplinary areas of science and engineering to other countries. The Academy of Scientific and Innovative Research could be a world class institution of national importance for imparting instructions and awarding degrees in emerging areas of science and technology. The Bill aims to retain these students in the Indian education system and not allow them to move to greener pasture overseas, with its emphasis on awarding primarily Post Graduate and PhD. Degrees.

8.3 Yet another advantage in establishing the proposed academy lies in increasing number of researchers in a cost effective manner without the requirement of any significant gestation period. CSIR with its existing academic resources available at its cluster 37 laboratories covering seven varied areas of sciences is advantageously positioned to provide faculty out of its 5,000 scientists engaged in cutting edge research and innovative work, a large number of them being eminent scholars and at least 50 per cent of them having the capability of teaching science and engineering. Thus, they would provide a faculty strength of 2,500 with no new investment in terms of salary, etc. Besides CSIR is already engaged in guiding and producing 450 Ph.Ds. in Science and Engineering annually, the highest by any Indian entity, in collaboration with Universities/ Institutions. In various areas of inter-disciplinary sciences, CSIR also hosts the largest number of Ph.D. students in its 37 constituents laboratories and produces 3,311 Ph.Ds. annually. Cluster-wise distribution of students enrolled for Ph.D. (as on 1st September, 2010) is as follows:

| Cluster | Laboratory | Total |
|----------------------|--|-------|
| Chemical Sciences | SLRI, CECRI, CSMCRI, CIMFR, IICT, IIP, NCL, NEIST, NIIST | 1570 |
| Biological Sciences | CCMB, CDRI, CFTRI, CIMAP, IGIB, IHBT, IICB, IIIM, IMTECH, IITR, NBRI | 1209 |
| Physical Sciences | CEERI, CSIO, NGRI, NIO, NPL | 386 |
| Engineering Sciences | AMPRI, CBRI, CGCRI, CMERI, CRRI, IMMT, NAL, NEERI, NML, SERC | 140 |
| Information Sciences | C-MMACS, NISCAIR, NISTADS, URDIP | 6 |
| Total | | 3311 |

8.4 Through this Academy, the academic potential of CSIR is expected to go up and it is estimated to produce 1,000 Ph.Ds. in science & technology and about 120 Ph.Ds. in engineering every year from the 5th the year onwards.

8.5 The Kelkar Committee set up in 2003 to review the activities of constituent laboratories of CSIR recommended that “CSIR laboratories should inter-alia strive towards creating an ambience of nurturing excellence and high quality human resources on sustainable basis by enlarging upon the scope and features of the present programmes.... CSIR laboratories should be encouraged to take on the role of research universities and seek deemed university status”. It is in conformity with the recommendations of the Kelkar Committee and also as an affirmation of the realization of CSIR that there was the need for high human resource development for India to lead in innovation driven world of tomorrow that the Academy has been conceived.

8.6 Yet another advantage of this Bill is that the Academy will indirectly help CSIR also. Any organisation attains greater heights and achieves excellence in its endeavours only if it has the best people to support and sustain it. To fill-in the gap of 200 individuals of its scientific workforce caused due to superannuation every year, is a formidable task for CSIR, due to non-availability of high caliber people with the present system in the country. It is expected that the Academy will be in a position to cater to the high caliber manpower required in the CSIR in particular and the country, in general.

9. Salient features of the Bill

9.1 The Academy to be called the “Academy of Scientific and Innovative Research” shall be a body corporate;

9.2 The Academy shall inter-alia disseminate advanced knowledge in science & technology by providing teaching and research facilities in such branches of learning as it may deem fit, particularly, in emerging areas and such areas as may emerge in future and undertake inter-disciplinary studies and research;

9.3 The Academy would establish linkages with industries in India and abroad for promotion of science & technology and collaborate in appropriate areas in the field of science & technology with reputed universities and institutions in India or outside India;

9.4 The Academy shall primarily focus on research and imparting instruction in such areas as are not ordinarily taught in regular academic universities in India.

9.5 The curricula, pedagogy and evaluation of the Academy shall be innovative and directed towards creating highest quality personnel with cross-disciplinary knowledge, aiming to provide leaders in the field of science and technology.

9.6 The Academy shall use the infrastructure and scientific manpower of the Council of Scientific and Industrial Research for teaching and research purposes for mutual benefit.

9.7 The Academy shall be an institution of national importance and shall function as an autonomous institution;

9.8 The Academy shall grant diplomas or certificates and confer degrees or other academic distinctions on the basis of evaluation and to hold its examinations, as the Academy, may, from time to time determine. This clause also proposes to engage scientists of the Council of Scientific and Industrial Research as Faculty in imparting instruction and conducting research in the Academy.

9.9 The Academy shall provide distance education in such branches of learning and to such persons as it may determine;

9.10 The authorities of the Academy shall be – The Board, Senate, Director, Board of Studies and such other authorities as may be declared by the statutes to be the authorities of the Academy.

9.11 The Board of the Academy shall consist of a Chairperson to be appointed by the President of the Council of Scientific and Industrial Research on the recommendations of a selection committee. Director-General CSIR shall be Ex-Officio Vice-Chairperson of the Academy.

9.12 The President of the Indian National Science Academy; the Chairman, Atomic Energy Commission; the Chairman, Space Commission; the Chairman University Grants Commission and the Finance Secretary and the Director of the Academy shall be the Ex-Officio members of the Board. Besides, Heads of three premier institutions imparting education in science & technology; four distinguished scientists or academicians of global eminence; three eminent industrialists or technologists; four distinguished or outstanding scientists or Directors of laboratories of CSIR shall be the nominated members of the Board;

9.13 The Chairperson of the Board shall be the Chancellor of the Academy.

9.14 The Academy shall maintain and retain a fund to which shall be credited (a) all fees (including tuition fees) and other charges received by the Academy; (b) all monies received by the Academy by way of grants, gifts, donations, benefactions, bequests or transfers; (c) monies for projects undertaken by the Academy; (d) income from investment made by the academy or from any other source; (e) the funds received from the Council of Scientific and Industrial Research, by way of loan or otherwise; (f) all monies received by the Academy in any other manner or from any other source.

9.15 The functioning of the Academy shall be reviewed once in 4 years by persons of eminence to be appointed by the CSIR.

10. Structure of the Academy

10.1 The Academy shall have the structure of a multi-centric institution based on a “Hub and the Spokes” model. CSIR Headquarters, located at Anusandhan Bhawan, Rafi Marg, New Delhi acting as a hub, shall be responsible for centralized administrative functions. It is connected with all the CSIR laboratories which are the spokes. There 37 laboratories of CSIR will act as actual campuses or centres for different subjects or areas based on their respective specializations.

11. Observations/recommendations of the Committee

11.1 The Committee is in broad agreement with the purpose and provisions of the Academy of Scientific and Innovative Research Bill, 2010, but it has certain apprehensions, reservations/concerns that need to be addressed while making the Academy fully operational.

11.2 The Committee finds that the Academy on Scientific and Innovative Research Bill, 2010 was introduced in the Lok Sabha on the 30th July, 2010, whereas the notification enabling operationalisation of certain essential features of the Bill was issued on 17th July, 2010, i.e., just 13 days before its introduction in the Lok Sabha. The Committee wonders that when the Bill was to be introduced merely two weeks later in the Lok Sabha why was it that certain basic provisions of the Bill were actually operationalized through a Government Notification. The Committee feels that it is a matter of concern that pending consideration and approval of the Parliament, certain major provisions of the proposed Bill were operationalized. The Committee even felt that this was an attempt on the part of the Government to take the Parliament for granted.

11.3 Responding to the concerns expressed by the Committee, Secretary, DSIR submitted that the Cabinet, while approving a Cabinet note and the Bill, took a Resolution based on the urgency of the matter that an interim academy would get the preparatory positions created by the time the Parliament cleared it. He stated that the idea was to create an interim academy through a resolution and when it was approved by the Parliament it would be converted into a full-fledged academy. This has been done to facilitate the Academy to commence its Academic activities as early as possible so as to meet the heightened expectations created about the Academy particularly as around 1,380 research fellows in various CSIR laboratories were awaiting registration for PhD. under the proposed Academy. He further added that as Secretary to the Govt. of India, he has an understanding, that there is an executive power vested in the Government by which a resolution can be passed and hence technically speaking, there was no violation of any law in setting up the interim Academy. He also cited an example of Indian Institute of Science Education Research (IISER) which has been functioning for the last 3 to 4 years awaiting approval of Parliament. He, however, suggested that the Law Secretary could be the best person to clarify the position in this regard.

11.4 Secretary, Legislative Department, Ministry of Law & Justice when confronted with the issue, submitted his reply in three parts: first, Constitutional position; second, Precedents and third the instant case. Justifying the establishment of an interim Academy through Gazette Notification, he referred to Article 73 of the Constitution of India which inter-alia provides that the executive power of the Union extends to the matters with respect to which Parliament has power to make laws. Secondly, there are instances like

Pension Fund Regulatory and Development Authority (PFRDA) which has been established even though the Bill introduced to give it statutory status has not been enacted till date. Similarly, Securities and Exchange Board of India (SEBI) and Insurance Regulatory Development Authority (IRDA) before their enactment, functioned through a resolution of the Government of India. And thirdly, coming to the instant case, there was a resolution of the cabinet passed for establishment of the interim academy and the same has been reflected in Clause 7 of the Bill. Thus, this Bill contains provisions for harmonizing and merging the existing institution with the proposed Academy as and when it gets statutory status after passage of this Bill by the Parliament. However, when Secretary Legislative Department was confronted with the question of propriety and not of legality of the matter which has been placed before Parliament for its consideration and simultaneously operationalising it through a resolution of the Government, he submitted that it is for the administrative Ministry to explain the urgency behind this exercise.

11.5 The Committee, further, asked the Secretary, Legislative Department: ‘.....If the Bill was passed with some amendments that go contrary to the actions taken by the interim Committee what would happen?’ The Secretary replied that the statute prevails over the executive action. He was further asked that when the Bill was pending, can executive order override or go beyond this scope of the Bill. The Secretary replied in the negative. He submitted that Article 73 says that the executive actions are *Pari-Materia* with the legislative power of the Parliament.

11.6 **The Committee takes note of the arguments advanced by the Secretaries, DSIR and Legislative Deptt., but is of the opinion that it would have been appropriate if the Academy had been set up only after the Parliament has passed the Bill.**

11.7 The Committee apprehended that setting up of an academy of this kind may affect the functioning of the existing 504 universities spread over the country.

11.8 Secretary, DSIR stated that development of human resources and the university system is primarily the concern of Govt. of India. But as Secretary, DSIR and D.G., CSIR his worry was to carry on industrial research. If CSIR laboratories do not get engineering PhDs, they will have to be closed down. So the first point was that this was a case of mere survival of laboratories – to produce its own human resources so that it can fill in talent vacuum. He further stated that this is how the Department of Atomic Energy and the Department of Space had gone to produce their own human resources. The way Atomic energy has produced its own Chairman after Chairman, in the same way one has to make sure that engineering laboratories can produce talented people and there was no need to bring IIT Professors as Directors of CSIR laboratories.

11.9 Secondly, the Universities’ mandate across the world, is to do basic and curiosity driven research. No University offers a training programme in technology transfer from laboratory to the market place. An expert who appeared before the Committee informed that one of the serious criticisms of the Indian system is that research done in laboratories does not get converted into technologies for commercialization. The reason is that technology transfer from mind to market place is not a one step process. This is like a chain. One has to do basic research in the Universities, convert it into technology after assessing the need of the industry, take it on a pilot basis, workout the economics of this and then finally transfer it to the industry. Universities are very strong in basic research, the first link, but the other links are totally unattended. Further, we have a very large number of good quality publications, but nothing results in a technology which is commercialized. There are no Indian products anywhere in the international technology

market. In such a situation, one option is to start new research universities which would, however, need major investment. But, those investments have already been made in CSIR. The facilities exist, the manpower exists, but there is no direct connection with the student community and there is no formal system of training them not only in basic research, but also in technology transfer from laboratories to the market place. That is why, it was thought to convert CSIR into a system which can train people in those areas in which we do not have an expertise today but we need it in future. Responding to the main apprehension of the Committee, i.e., the Academy competing with the Universities, Secretary, DSIR made it very clear with that this Academy will deal with subjects not ordinarily dealt with in any universities. He further added – “our job is to produce something that is not produced anywhere”. One of the experts who appeared before the Committee also supported the contention of the Secretary, DSIR and stated that it was not competition, actually it was coexistence to strengthen both.

11.10 The Committee was further informed that the strengthening of university system was a sort of an independent issue. In the 11th Five Year Plan, there has been a huge initiative to increase the number of Universities, as well as, to strengthen the existing institutions, as it was felt that higher education had been neglected in the past. The Committee was further informed that a Committee has been set up under the chairmanship of Prof. M.M. Sharma to revise science education. Presently, an amount of Rs. 600 Crores has been allocated to science education and every year, Rs. 200 Crores are being spent for strengthening laboratories, instituting fellowship and for increase in the faculties. Thus, science has been brought on a higher agenda in the UGC. The Committee takes note of the assurance given by the Secretary, DSIR in this regard.

11.11 Since, one of the main objectives of establishing the Academy of Scientific and Innovative Research is to substantially increase the number of PhDs. in integrative and inter-disciplinary areas of science and engineering, the Committee inquired from the Secretary, DSIR if the index of scientific progress is dependent on the number of PhDs. being produced and if any track record of PhD. candidates are maintained to see if they are productively engaged and applying their innovative researches in their professional career. The Secretary DSIR replied that we were today as a nation because of the number of PhDs. we have produced, the number of IITs we produced, the number of institutions that we produced and the number of people we trained. It is very difficult to say if our products eventually worked or not, but all I can say is that something must be special which the country has done that many of us are back in the country in spite of the other opportunities available abroad. Even if some of the PhD. students left Science and became civil servants, it does not mean that the country has lost anything. Higher qualification always gives the nation some assets. The performance of the laboratories and scientific institutions, is closely related to the number of both young and experienced scientists and PhDs. that the laboratory has.

11.12 **The Committee feels that while we must strive to produce more and more PhDs., we must also focus our attention to advance the frontiers of production, productivity and profitability for societal good. It is further of the opinion that while degree programmes are important, non-degree programmes are equally important. The Academy should, therefore, foster non-degree programmes also which will help upgrade the technical capability of small-scale, rural and food processing industries in the country. Institutions like the Khadi and Village Industries Commission are stagnating because of lack of technological upgrading.**

The Committee is of the view that this is an area where CSIR apart from working for big industries should focus and concentrate on. Big industries can go anywhere in the world and get technology, but for the small and medium-scale enterprises this Academy should become a training and technological upgradation hub. The Committee, therefore, recommends that the Academy should have two pronged strategy of advancing the frontiers of knowledge, advanced science and technology on the one hand and on the other advancing the frontiers of production and productivity, particularly of rural enterprises as the Chinese have successfully done through the concept of Township and Village Enterprises (TVEs). Unless, the Academy succeeds in adopting the above strategy, the Committee feels that it will become one more Ph.D producing machine.

11.13 The Committee notes that the mission of CSIR is to maximize economic and societal benefits for the people of India through scientific industrial research and development. Regional laboratories were set up primarily to convert the natural resources of that area into wealth and job. But that objective still remains to be fully realized. **The Committee, therefore, recommends that the Academy should make all-out efforts to fulfill the objective of improving the economic well being not only of the big industries but also of the small-scale, rural and food processing industries adding value to the raw materials in the villages creating more jobs and income.**

11.14 While the Committee broadly appreciates the initiative of the Govt. to establish the Academy, it apprehends that in its pursuit of academic excellence and endeavour to make the Academy self-reliant, CSIR may lose sight of its long cherished mission, i.e., to provide scientific industrial research and development that maximizes the economic, environmental and societal benefits for the people of India. One of the experts who appeared before the Committee was also in agreement with the apprehension of the Committee. He also opined that the academic function of the Academy should not take over functions of the research and that both of the two will have to be balanced. **The Committee would, therefore, like to caution CSIR against any such possibility of drifting away from its mission and recommends that societal benefits for the people of India should always remain the moto and focus of CSIR and that it should not be allowed to be compromised at any cost.**

11.15 The Committee is of the opinion that the main aim of the CSIR behind establishing the Academy is to maximize or optimize benefits of their vast infrastructure for creating a new breed of PhDs who are well versed in the interface of science and technology and who will be able to stimulate industrial growth. But what the Committee finds in the Bill is that there is a scope for including and attaching other institutions of science and technology like those under Department of Science and Technology and Department of Biotechnology, Ministry of Earth Sciences, etc. with the Academy, so as to undertake inter-disciplinary research and conduct courses in, and integrate into its courses, more and more inter-disciplinary and multi-disciplinary areas. There are so many institutions in the family of science and technology in our country with some wonderful laboratories, and if all of them could be brought together, we will be able to develop powerful instruments of applied science and applied research. **The Committee, therefore, feels that Govt. should try to integrate as many disciplines of science and as many laboratories as possible so as to make the Academy truly integrative and multi-disciplinary. By doing this, it will become a national umbrella for getting the best out**

of the existing infrastructure and developing a new class of PhDs. The Committee is of the view that the Government should explore the possibilities of making the Academy more broad based so as to include other well established and outstanding scientific institutions under different scientific organisations, in order to derive the maximum benefit for the country.

11.16 When the Committee sought the comments of the Secretary, DSIR on Committee's views on the possibility of integrating other institutions with the Academy he stated that while CSIR was moving with this idea for the last several years, the Department of Atomic Energy actually formed a university structure, a deemed university to give a degree and to create its own resources. Department of Atomic Energy has also created its own system through Bhabha School. Similarly, the Department of Space has also created its own training centres at the university. DRDO has also done the same thing and they have formed their own resources. In this way, today India has the largest strategic scientists or manpower – some 20,000 odd scientists, under these agencies which are already having, the training component built into their system. Department of Science & Technology and Department of Biotechnology has a few scientists as compared to other institutions. Now, all these Departments are independent societies and, therefore, integrating them into one would be a problem. Yet another point that he emphasized on was that CSIR itself is so large and to manage anything larger than that and to bring other disciplines/departments of science under this umbrella is a pretty complex thing and would therefore be difficult. **The Secretary, however, did not preclude to the possibility of affiliation with this Academy of other institutions at a later stage.**

11.17 **The Committee is of the opinion that the future leadership in the area of science and engineering depends largely on its strength in integrated and inter-disciplinary areas and as such it would be in the interest of the Nation that the Academy is made sufficiently broad based so as to include and utilize all the national facilities and laboratories even if they fall within jurisdiction of other scientific departments. The Committee, therefore, recommends that DSIR should try to explore the possibility of doing this in consultation with the concerned Deptts.**

11.18 While the Committee appreciates the objective of the Bill, i.e., to produce more PhDs., but it feels that producing more and more number of PhDs is not enough. The real challenge lies in the utilisation of those PhDs. or highly technically skilled personnel in industry or to retain them into the profession, they have been reared and nurtured and have gained expertise and excellence in. The Committee notes with dismay that today a big section of students although trained in engineering and advance sciences finally opt for a career in commercial sector like bank or get drifted to software industry. Majority of them do not get employment in the area of their specialization. Drifting away from education or research to other branches where that specialized education or training is not of much use is also a kind of brain drain apart from the conventional brain drain of people going abroad. **The Committee, therefore, recommends that while striving to produce more and more PhDs., the Academy or the CSIR should also side by side think of creating sufficient opportunities for productively engaging these PhDs in the areas of their specialization, so that the type of drifting as pointed out above could be arrested to a large extent.**

11.19 **The Committee feels that the administrative procedures to be adopted in the Academy should be kept simple as complex and complicated administrative procedures result in the administrative bureaucracy becoming predominant and those**

really doing science and technology, research and development taking back seat. Such a situation, therefore, needs to be avoided. The Committee is, therefore, of the opinion that the administrative procedures to be adopted by the Academy should be such that the key persons facilitating and helping the Academy achieve its objectives get free and fair opportunity to contribute their level best and are not bogged down by bureaucratic hurdles.

11.20 The Committee enquired from the Secretary, DSIR as to how such a big Academy is proposed to be established without any Government grant, particularly when it has to be of international standards. Secretary, DSIR clarified that CSIR was built with public funding and today it has assets worth crores of rupees. The assets with CSIR are its 5000 scientists, 37 central laboratories and their campuses besides equipment and other facilities existing in CSIR laboratories. He further added that these are the components for which much of the money is required if a new Institution is to be established. Moreover, more than money, the Academy needs autonomy to realize its objective. The Academy would arrange its resources through tuition fee, consultancy, grants, apart from laboratory reserves of CSIR, etc. However, it has nowhere been stated in the Bill that Govt. funding will not be accepted. What has been provided in the Bill is that the Academy will not go with an independent budget to the Planning Commission.

11.21 The Committee takes note of the views expressed by the Secretary, DSIR. The Committee, however, suggests that in case the Academy needs funds, in future, the Ministry should ensure that requisite funds are made available to it.

11.22 The Committee finds that there is hardly any reference of women scientists being given any representation on the Board of the proposed Academy. The Committee observes that there are a number of young promising women scientists who have done exceedingly well in the field of research in science and technology and have been able to get recognition in terms of awards from CSIR and other scientific institutions. **The Committee, however, feels that representation of women in science and technology is still not satisfactory and hence they need to be encouraged for greater participation particularly in administrative and decision making bodies. The Committee, therefore, recommends that Govt. must ensure adequate representation of women scientists and technologists on the Board of the Academy.**

11.23 **With the foregoing general observations/ recommendations, the Committee agrees with the provisions of the Bill. The Committee hopes that Govt. would pay due attention to its observations/recommendations while operationalising the provisions of this Bill.**

ANNEXURES

THE ACADEMY OF SCIENTIFIC AND INNOVATIVE RESEARCH BILL, 2010

ARRANGEMENT OF CLAUSES

CLAUSES

1. Short title, extent and commencement.
2. Definitions.
3. Establishment of Academy of Scientific and Innovative Research.
4. Objects of Academy.
5. Relationship of Academy with Council of Scientific and Industrial Research.
6. Declaration of Academy as an institution of national importance.
7. Transfer of assets, liabilities, etc., of existing Academy to Academy established under this Act and other provisions, etc.
8. Functions and powers of Academy.
9. Academies open to all castes, creed, race or class.
10. Authorities of Academy.
11. Composition of Board of Governors.
12. Appointment of Chairperson.
13. Nomination of distinguished scientists or academicians of global eminence, eminent industrialists or technologists and heads of three premier institutions in the field of imparting education in science and technology.
14. Nomination of distinguished scientists or outstanding scientists of Council of Scientific and Industrial Research or Directors of Council of Scientific and Industrial Research laboratories.
15. Allowances payable to members of Board.
16. Term of office of members of Board.
17. Powers of Board.
18. Senate.
19. Powers of Senate.
20. Chancellor of Academy.
21. Director of Academy.
22. Appointment and duty of Director of Academy, etc.
23. Associate Directors.
24. Powers of other authorities.
25. Funds of Academy.
26. Accounts.
27. Audit of accounts and its publication.
28. Statutes.
29. Matters to be provided by Statutes.
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31. Review of functioning of Academy.
32. Appointments.
33. Conditions of service.
34. Arbitration.
35. Removal and suspension of Chairperson and other Members or Director.
36. Meetings.
37. Vacancies, etc., not to invalidate acts or proceedings of Board, Academy or any other body.
38. Power to remove difficulties.

TO BE INTRODUCED IN LOK SABHA

Bill No. 73 of 2010

THE ACADEMY OF SCIENTIFIC AND INNOVATIVE RESEARCH
BILL, 2010

A

BILL

to establish an Academy for furtherance of the advancement of learning and prosecution of research in the field of science and technology in association with Council of Scientific and Industrial Research and to declare the institution known as the Academy of Scientific and Innovative Research, to be an institution of national importance to provide for its incorporation and matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Sixty-first Year of the Republic of India as follows:—

1. (1) This Act may be called the Academy of Scientific and Innovative Research Act, 2010.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint and different dates may be appointed for different provisions of this Act.

Short title,
extent and
commencement.

TO BE INTRODUCED IN LOK SABHA

Bill No. 73 of 2010

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2. In this Act, and in all Statutes and Ordinances made thereunder, unless the context otherwise requires,—

(a) “Academy” means the Academy of Scientific and Innovative Research established under sub-section (1) of section 3;

(b) “Board” means the Board of Governors of the Academy of Scientific and Innovative Research referred to in section 10;

(c) “Council of Scientific and Industrial Research” means a society registered by the name of the Council of Scientific and Industrial Research under the Societies Registration Act, 1860;

(d) “Chairperson” means the Chairperson of the Board appointed under section 12;

(e) “Chancellor” means the Chancellor of the Academy referred to in section 20;

(f) “Director” means the Director of the Academy appointed under section 22;

(g) “distinguished scientists” or “outstanding scientists” of the Council of

Scientific and Industrial Research” means scientists of the Council of Scientific and Industrial Research designated as such;

(h) “existing Academy” means the Academy of Scientific and Innovative Research established in pursuance of the Resolution of the Government of India in the Ministry of Science and Technology, Department of Scientific and Industrial Research, Council of Scientific and Industrial Research, having number No. 6/1/CSIR-AcSIR/2010-PPD, dated the 1st July, 2010;

(i) “Faculty of the Academy” means Academy Professors, Professors of Eminence, Distinguished Professors, Outstanding Professors, Senior Professors, Emeritus Professors, Professors, Associate Professors, Assistant Professors, visiting faculty, and such other persons as may be appointed for imparting instruction or conducting research in the Academy or institutions maintained by the Academy and includes the scientists of Council of Scientific and Industrial Research assigned for imparting instruction or conducting research;

(j) “notification” means a notification published in the Official Gazette;

(k) “Statutes and Ordinances” means the Statutes and the Ordinances of the Academy for the time being in force.

3. (1) With effect from such date as the Central Government may, by notification, appoint in this behalf, there shall be established for the purposes of this Act an Academy to be called the “Academy of Scientific and Innovative Research” as a body corporate by such name.

(2) The headquarters of the Academy shall be at such place as the Central Government may, by notification, specify.

(3) The Academy may have such number of regional centres and campuses, as it may deem fit.

(4) The Academy shall have perpetual succession and a common seal, with power, subject to the provisions of this Act, to acquire, hold and dispose of property and to contract, and shall by that name, sue and be sued.

4. (1) The objects of the Academy shall be to —

(a) disseminate advanced knowledge in science and technology, by providing teaching and research facilities in such branches of learning as it may deem fit, particularly in emerging areas and such areas as may emerge in future;

Definitions.

Establishment

of Academy

of Scientific

and

Innovative

Research.

Objects of

Academy.

21 of 1860.

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(b) undertake inter-disciplinary studies and research;

(c) conduct courses in, and integrate into its courses, inter-disciplinary and multi-disciplinary areas covering natural sciences, life sciences, mathematical and computational

sciences, medical sciences, engineering, applied art, humanities, social sciences, law relating to these areas and interfaces thereof;

(d) take appropriate measures for innovations in teaching and learning processes;

(e) create an ambience for learning and scholarship in advanced science and technology instead of exclusively focusing on marks or grades;

(f) educate and train manpower in scientific and technological fields;

(g) establish linkages with industries in India and outside India for the promotion of science and technology;

(h) collaborate, in appropriate areas in the field of science and technology, with reputed universities and institutions in India or outside India;

(i) promote research in science and technology having a bearing on social, economic, cultural, intellectual and academic welfare of the people.

(2) The Academy shall primarily focus on research and imparting instruction in such areas as are not ordinarily taught in regular academic universities in India.

(3) The curricula, pedagogy and evaluation of the Academy shall be innovative and directed towards creating highest quality personnel with cross-disciplinary knowledge, aiming to provide leaders in the field of science and technology.

5. (1) The Academy shall be, provided, or, allowed to use, the infrastructure and scientific manpower of the Council of Scientific and Industrial Research for teaching and research purposes for mutual benefit.

(2) The Academy, within two weeks of the commencement of this Act, shall, notwithstanding anything contained in any other Act, rules, regulations or bye-laws for the time being in force, enter into a Memorandum of Understanding with the Council of Scientific and Industrial Research, for the purposes of its affiliation with the Academy for the purposes of academics, teaching and award of degrees or diplomas, and, the persons pursuing the studies in the Council for award of any degree or diploma, after entering of such Memorandum of Understanding, be awarded degrees or diplomas by the said Academy:

Provided that any person pursuing any academic or research course, before the commencement of this Act, in the Council of Scientific and Industrial Research for award of any degree or diploma and registered for the said purpose with any other university, may, with the approval of the university with which such person is registered, migrate after such commencement to the Academy established under this Act and be registered with the said Academy for grant of the same degree or diploma by the Academy established under this Act and such person shall be deemed to have migrated and registered with the Academy established under this Act at the same level of study in the university from which such person migrated.

(3) Nothing contained in sub-section (1) or sub-section (2) shall be construed to affect the functions or powers of the Council of Scientific and Industrial Research, being discharged or exercised, before the commencement of this Act, by the Council or to affiliate with any other university or institution for the purposes of academics, teaching and award of degrees or diplomas or for any other purposes necessary for pursuing its objects.

6. It is hereby declared that the Academy of Scientific and Innovative Research shall be an institution of national importance.

Relationship
of Academy
with Council

of Scientific
and Industrial
Research.
Declaration of
Academy as
an institution
of national
importance.

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7. (1) On and from the date of establishment of the Academy,—

(a) any reference to the existing Academy in any law other than this Act or in any contract or other instrument shall be deemed as a reference to the Academy;

(b) all properties and assets, movable and immovable, of, or belonging to, the existing Academy, shall vest in the Academy;

(c) all rights and liabilities of the existing Academy shall be transferred to, and be the rights and liabilities of, the Academy;

(d) without prejudice to the provisions of clause (c), all debts, obligations and liabilities incurred, all contracts entered into and all matters and things engaged to be done by, with or for the existing Academy immediately before that date, for or in connection with the purpose of the said existing Academy shall be deemed to have been incurred, entered into or engaged to be done by, with or for, the Academy;

(e) all sums of money due to the existing Academy immediately before that date shall be deemed to be due to the Academy;

(f) all suits and other legal proceedings instituted or which could have been instituted by or against the existing Academy immediately before that date may be continued or may be instituted by or against the Academy;

(g) every employee (including those appointed for imparting instruction or conducting research in the existing Academy) holding any office under the existing Academy or teaching therein immediately before that date shall hold his office in the Academy or continue teaching therein by the same tenure and upon the same terms and conditions of service as respects remuneration, leave, provident fund, retirement and other terminal benefits as he would have held such office if the Academy had not been established and shall continue to do so as an employee of the Academy or until the expiry of the period of six months from that date if such employee opts not to be the employee of the Academy within such period.

(2) Any person pursuing any academic or research course, before the commencement of this Act, in the existing Academy for award of any degree or diploma or certificate shall be entitled to pursue such academic or research course after the establishment of the Academy under this Act and be registered with the said Academy for grant of the same degree or diploma or certificate by the Academy established under this Act and such person shall be deemed to have migrated and registered with the Academy established under this Act at the same level of study in the existing Academy from which such person migrated.

(3) Any persons, who immediately before the commencement of this Act, had been awarded a degree or diploma or certificate for having qualified any course by the existing Academy, shall be entitled to award of equivalent degree or diploma by the Academy subject to approval by the Board of the Academy.

(4) Notwithstanding anything contained in the Industrial Disputes Act, 1947 or in any

other law for the time being in force, absorption of any employee by the Academy in its regular service under this section shall not entitle such employee to any compensation under that Act or other law and no such claim shall be entertained by any court, tribunal or other authority.

Transfer of
assets,
liabilities, etc.,
of existing
Academy to
Academy
established
under this Act
and other
provisions,
etc.

14 of 1947.

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8. (1) The Academy shall discharge its functions and exercise the following powers, namely:—

(i) to provide for instructions and conduct research in such branches of learning like natural sciences, life sciences, mathematical and computational sciences, medical sciences, engineering, applied art, humanities, social sciences, law relating to these areas and interfaces thereof, and in particular, in inter-disciplinary and multi-disciplinary areas of these branches, and in all such areas as may emerge in future and other emerging areas of knowledge, as the Academy may from time to time determine and make provision for advancement and dissemination of knowledge;

(ii) to lay administrative standards and structures and decide on all matters of creation of posts, laying down standards for recruitment, determining compensation packages, and contractual arrangements;

(iii) to design its curriculum and pedagogy for award of diplomas or certificates and confer degrees or other academic distinctions as it may deem fit;

(iv) to grant, subject to such conditions as the Academy may determine, diplomas or certificates and confer degrees or other academic distinctions on the basis of such methods of evaluation and to hold its examinations, as the Academy may, from time to time, determine and to withdraw any such diplomas, certificates, degrees or other academic distinctions for good and sufficient cause;

(v) to frame Statutes and Ordinances and to alter, modify or rescind the same;

(vi) to organise and undertake extramural studies, training and extension services;

(vii) to confer honorary degrees or other distinctions;

(viii) to provide distance education in such branches of learning and to such persons as it may determine;

(ix) to institute professorships, associate professorships and assistant professorships including Academy Professors, Professors of Eminence, Distinguished Professors, Outstanding Professors, Senior Professors, Emeritus Professors, or visiting positions and other teaching or academic or other positions, required by the Academy and to make appointments to such positions;

(x) to appoint persons from any other university, or institution, or industry, or persons of eminence from appropriate fields of studies, including those outside the country, as Faculty of the Academy;

(xi) to create administrative, ministerial and other posts and to make appointments thereto;

(xii) to co-operate or collaborate or associate with any body including, any university or institution, or industry, located in India or outside India;

(xiii) to establish such centres and specialised laboratories or other units for research and instruction as may be required;

(xiv) to set up schools, centres and campuses and function therefrom or conducted classes from any place of its choice, including the premises of laboratories or other centres of the Council of Scientific and Industrial Research;

(xv) to institute and award fellowships, scholarships, studentships, medals and prizes;

(xvi) to conduct research, advisory and consultancy services with or for any entity, public or private, whether in India or outside India, which are in conformity with the spirit and object of the Academy;

Functions and

powers of

Academy.

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(xvii) to engage scientists of the Council of Scientific and Industrial Research as Faculty in imparting instruction and conducting research in the Academy;

(xviii) to establish, maintain and manage institutions and hostels for residence of students or establish and maintain such institutions through the Council of Scientific and Industrial Research or any other body;

(xix) to fix, demand and receive payment of fees and other charges;

(xx) to determine the standards of admission to the Academy, which may include examination, other innovative models of testing or evaluation;

(xxi) to supervise the residences of the students of the Academy and to make arrangements for promoting their health, general welfare, cultural and corporate life;

(xxii) to lay down conditions of service for all categories of employees, including their code of conduct;

(xxiii) to regulate and enforce discipline, among the students and employees and to take such disciplinary measures in this regard as may be necessary;

(xxiv) to make arrangements for promoting the health and general welfare of the employees;

(xxv) to receive grants, benefactions, donations, gifts, bequests and transfer or acquire, hold and manage and dispose of any property movable or immovable, including trust and endowment properties for the purposes of the Academy:

Provided that no such grants, benefactions, donations, gifts, bequests and transfer shall be accepted by the Academy which in the opinion of the Board involves conditions or obligations opposed to the spirit and object of this Act;

(xxvi) to borrow, on the security of property of the Academy or otherwise, money for the purposes of the Academy or utilise its property for such purposes as are in conformity with the spirit and object of this Act;

(xxvii) to do all such other acts and things as may be necessary, incidental or conducive to the attainment of all or any of its objects.

(2) In exercising its powers referred to in sub-section (1), it shall be the endeavour of the Academy to maintain an all India character and high standards of teaching and research, and, the Academy shall, among other measures which may be necessary for the said purpose, take, in particular, the following measures, namely:—

- (i) subject to the provisions of section 9, the admission of students shall be made on merit;
- (ii) continuous evaluation or other innovative methods of evaluation and choice based credit system may be introduced and the Academy may enter into agreements with other universities and academic institutions in India or outside India for credit transfer and joint degree programmes;
- (iii) innovative courses and programmes of studies shall be introduced with a provision for periodic review and restructuring;
- (iv) the imparting of instruction shall be, as far as may be, through use of modern techniques or technologies;
- (v) the systems and structures of the Academy should be flexible to adapt to the requirements of multi-disciplinary and inter-disciplinary studies;
- (vi) active participation of students may be ensured in governance of academic matters of the Academy.

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9. (1) The Academy shall be open to all persons, of either sex, irrespective of caste, creed, race or class, and it shall not be lawful for the Academy to adopt or impose on any person, any test whatsoever of religious belief or profession in order to be entitled to be appointed as a Faculty of the Academy or to hold any other office therein, or to be employed therein or to be admitted as a student in the Academy or to graduate thereat or to enjoy or exercise any privilege thereof.

(2) Nothing in this section shall be deemed to prevent the Academy from making special provision for the employment or admission of women, persons with disabilities or of persons belonging to the weaker sections of the society and, in particular, of the Scheduled Castes, the Scheduled Tribes and the other socially and educationally backward classes of citizens:

Provided that no such special provision shall be made on the ground of domicile.

10. The following shall be the authorities of the Academy, namely:—

- (a) The Board;
- (b) Senate;
- (c) Director;
- (d) Boards of Studies;
- (e) such other authorities as may be declared by the Statutes to be the authorities of the Academy.

11. (1) The Board referred to in clause (a) of section 10 shall consist of the following, namely:—

- (a) the Chairperson of the Board, to be appointed under section 12;
- (b) the Director-General of the Council of Scientific and Industrial Research, *ex officio* Vice-Chairperson;
- (c) the President of the Indian National Science Academy, *ex officio* member;
- (d) the Chairman, Atomic Energy Commission, Government of India, *ex officio* member;
- (e) the Chairman, Space Commission, Government of India, *ex officio* member;
- (f) the Chairman, University Grants Commission, Government of India, *ex officio* member;

(g) The Finance Secretary in the Ministry of Finance, Government of India, *ex officio* member;

(h) the heads of three premier institutions in the field of imparting education in Science members to be and Technology, nominated under section 13;

(i) four distinguished scientists or academicians of global eminence, of which two should be from reputed institutions members to be outside India, nominated under section 13;

(j) three eminent industrialists or members to be technologists, nominated under section 13;

(k) four distinguished scientists or outstanding scientists or Directors of Academy open to all castes, creed,

race or class.

Authorities of

Academy.

Composition

of Board of

Governors.

8

laboratories of Council of Scientific members to be and Industrial Research, nominated under section 14;

(l) the Director of the Academy, *ex officio* member.

(2) The Chairperson shall ordinarily preside over the meetings of the Board.

(3) The Board may evolve its own procedure for the purpose of conducting its meetings and transacting business therein.

(4) The Associate Director in charge of administration of the Academy shall be the Secretary of the Board

12. (1) The Chairperson shall be appointed by the President of the Council of Scientific and Industrial Research, on the recommendation of the selection committee constituted under sub-section (2):

Provided that the Director-General of the Council of Scientific and Industrial Research, being the *ex officio* Vice-Chairperson, as referred to in clause (b) of sub-section (1) of section

11, shall act as the Chairperson until the first Chairperson is selected and appointed in accordance with the provisions of this Act:

Provided further that no person shall be selected and appointed as Chairperson unless such person is an Indian citizen.

(2) The selection committee referred to in sub-section (1) shall consist of four eminent scientists or technologists of international repute, as may be nominated by the President of the Council of Scientific and Industrial Research.

(3) At least two eminent scientists or technologists of international repute nominated under sub-section (2) shall be from the heads of international societies, academies, or similar organisations in the field of science and technology.

(4) The selection committee referred to in sub-section (2) shall—

(a) be constituted within six months before the completion of tenure of the incumbent as the Chairperson of the Board;

(b) submit its recommendation at least three months before the completion of the tenure of the incumbent Chairperson.

(5) The selection committee may evolve its own procedure for the purposes of meetings and making recommendations under sub-section (1) including making recommendations in

respect of a person who has not applied for the post of Chairperson.

(6) Three members of the selection committee referred to in sub-section (I) shall form quorum for the meeting of the committee.

(7) The Chairperson shall exercise such other powers and perform such other functions as may be assigned to him by this Act or the Statutes

13. The heads of three premier institutions in the field of imparting education in science and technology, referred to in clause (h), the distinguished scientists or academicians of global eminence referred to in clause (i), and eminent industrialists or technologists referred

to in clause (j), of sub-section (I) of section 11, shall be nominated, by the President of the Council of Scientific and Industrial Research.

Appointment

of

Chairperson.

Nomination of

distinguished

scientists or

academicians of

global

eminence,

eminent

industrialists or

technologists

and heads of

three premier

institutions in

the field of

imparting

education in

science and

technology.

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14. The nomination of distinguished scientists or outstanding scientists of the Council of Scientific and Industrial Research or Directors of Council of Scientific and Industrial Research laboratories, referred to in clause (k) of sub-section (I) of section 11 shall be made by the Governing Body of the Council of Scientific and Industrial Research.

15. The members of the Board shall be entitled to such allowances, if any, from the Academy, as may be provided for, in the Statutes but no member other than the Director of the Academy referred to in clause (l) of sub-section (I) of section 11, shall be entitled to any salary by reason of this section.

16. (I) Save as otherwise provided in this section, term of office of the Chairperson or any other nominated member of the Board shall be four years, being one term of the Board and they shall not be eligible to be re-appointed as Chairperson or nominated as a member, as the case may be.

Explanation I.— The period of term of office of the Chairperson or any other nominated member of the Board [other than *ex officio* Vice-Chairperson and *ex officio* members and

nominated members under clause (k) of sub-section (1) of section 11] of the existing Academy shall be counted for the purposes of this sub-section:

Explanation II.—For the removal of doubt it is hereby declared that a person who held the office of a member shall not be eligible to be re-appointed as a member but may be appointed as the Chairperson in accordance with provisions of this Act.

Provided that an outgoing member of the Board shall, unless or otherwise directed, continue in office until another person is appointed, or, as the case may be, nominated as a member in his place.

(2) In the event of vacancy in the office of the Chairperson, by reason of his death or resignation or otherwise, the Vice-Chairperson shall act as the Chairperson until a new Chairperson is appointed in accordance with the provisions of this Act to fill the vacancy and enter upon his office:

Provided that a person appointed due to a vacancy in the office of Chairperson under sub-section (2), shall be eligible to be appointed as Chairperson in accordance with the provisions of this Act only for one term in addition to the period for which he was appointed to fill the vacancy of Chairperson.

(3) In the event of vacancy in the office of a nominated member under clauses (h), (i), (j) and (k) of sub-section (1) of section 11 by reason of his death or resignation or otherwise,

the vacancy shall be filled in accordance with the provisions of this Act:

Provided that a person nominated under sub-section (1) of section 11 due to a vacancy in the office of the member, such person shall be eligible to be nominated only for one term as member in accordance with the provisions of this Act, in addition to the period for which he was nominated to fill the vacancy.

(4) The term of office of an *ex officio* member shall continue as long as he holds the office by virtue of which he is a member.

(5) One-fourth of the members, being distinguished scientists or outstanding scientists or Directors of laboratories of the Council of Scientific and Industrial Research nominated under clause (k) of sub-section (1) of section 11 shall retire every year and new members shall be nominated in their place in accordance with the provisions of this Act:

Nomination of
distinguished
scientists or
outstanding
scientists of
Council of
Scientific and
Industrial
Research or
Directors of
Council of
Scientific and
Industrial
Research
laboratories.
Allowances
payable to

members of
Board.
Term of office
of members of
Board.

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Provided that, notwithstanding anything contained in this sub-section, the members, being distinguished scientists or outstanding scientists of the Council of Scientific and Industrial Research or Directors of the Council of Scientific and Industrial Research laboratories nominated under clause (k) of sub-section (1) of section 11, immediately after the commencement of this Act for the first time, may hold office for such period, as may be specified in their nomination and provisions of this sub-section shall not be applicable to such nominated members.

17. (1) Subject to the provisions of this Act, the Board shall be responsible for the general superintendence, direction and control of the affairs of the Academy and shall exercise all the powers of the Academy not otherwise provided for by this Act, the Statutes and the Ordinances, and shall have the power to review the acts of the Senate.

(2) Without prejudice to the provisions of sub-section (1), the Board shall have the powers to—

(a) take decisions on questions of policy relating to the administration and working of the Academy;

(b) institute courses of study at the Academy;

(c) make Statutes;

(d) institute and appoint persons to academic as well as other posts in the Academy;

(e) consider and modify or cancel or rescind Ordinances;

(f) consider and pass resolutions on the annual report, the annual accounts and the budget estimates of the Academy for the next financial year, together with a statement of its development plans;

(g) approve investments in infrastructure of the Academy in any land or building;

(h) exercise such other powers and perform such other duties as may be conferred or imposed upon it by this Act or the Statutes.

(3) The Board shall also have the power to appoint such committees of one or more persons as it considers necessary for exercise of its powers and the performance of its duties and hold enquiries under this Act.

18. (1) The Senate shall consist of the following, namely:—

(a) the Director, *ex officio*, who shall be the Chairperson of the Senate;

(b) all Associate Directors, *ex officio* members;

(c) all Deans of the Academy, *ex officio* members;

(d) two Professors from each area of study represented by the Boards of Studies of the Academy, as may be nominated by the Board, *ex officio* members;

(e) two scientists of the Council of Scientific and Industrial Research, who being the youngest in age; and recipient of Shanti Swaroop Bhatnagar Award; and who are also Faculty of the Academy, as may be nominated by the Director-General of the Council of Scientific and Industrial Research;

(f) two scientists of the Council of Scientific and Industrial Research, who being the youngest in age; and recipient of CSIR-Young Scientist Award; and who are Faculty of the

Academy, as may be nominated by the Director-General of the Council of Scientific and Industrial Research;

(g) three Directors or distinguished scientists or outstanding scientists of the Council of Scientific and Industrial Research laboratories, nominated by its Director General;

(h) three persons, not being the employees of the Academy or the Council of Scientific and Industrial Research, to be nominated by the Chancellor in consultation Powers of Board. Senate.

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with the Director from amongst educationists of repute, one being from each of the fields of science, engineering and social sciences;

(i) such other members of the staff as may be laid down in the Statutes.

(2) The tenure of the nominated members under clauses (d) to (h) of sub-section (1) shall be two years:

Provided that the Senate shall not, at any time, have less than fifty per cent. of its members from the Council of Scientific and Industrial Research scientists teaching in the Academy.

19. Subject to the provisions of this Act, the Statutes and the Ordinances, the Senate of the Academy shall have the control and general regulation, and be responsible for the maintenance, of standards of instruction, education and examinations in the Academy and shall exercise such other powers and perform such other duties as may be conferred or imposed upon it by the Statutes and Ordinances.

20. (1) The Chairperson of the Board shall be the Chancellor of the Academy.

(2) The Chancellor shall ordinarily preside at the Convocations of the Academy.

21. The Director shall be the principal academic and executive officer of the Academy and shall be responsible for the administration of the Academy and imparting instruction, research and maintenance of discipline.

22. (1) The Director shall be appointed, by the President of Council of Scientific and Industrial Research, on the recommendation of the selection committee constituted under sub-section (2).

(2) The selection committee referred to in sub-section (1) shall consist of—

(a) the Chairperson of the Board;

(b) the Vice-Chairperson of the Board;

(c) the President of the Indian National Science Academy;

(d) the Chairman, Atomic Energy Commission, Government of India;

(e) the Chairman, Space Commission, Government of India.

(3) The selection committee referred to in sub-section (2) shall—

(a) be constituted within six months before the completion of tenure of the incumbent as the Director;

(b) submit its recommendation at least three months before the completion of the tenure of the incumbent Director.

(4) The selection committee may evolve its own procedure for the purposes of meetings and making recommendations under sub-section (1) including making recommendations in respect of a person who has not applied for the post of Director.

(5) Three members of the selection committee referred to in sub-section (1) shall form quorum for the meeting of the committee:

Provided that no person shall be selected or nominated as Director unless such person is an Indian citizen.

(6) It shall be the duty of the Director that the decisions taken by the Board are implemented.

(7) The Director shall submit an annual report and accounts of the Academy to the Board.

Powers of

Senate.

Chancellor of

Academy.

Director of

Academy.

Appointment

and duty of

Director of

Academy, etc.

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(8) The Director shall exercise such other powers and perform such other duties as may be assigned to him by this Act or the Statutes or the Ordinances.

(9) The term of the Director shall be five years.

23. (1) The Associate Directors of the Academy shall, be appointed by the Director with the approval of the Board, from amongst Professors of the Academy or scientists of the Council of Scientific and Industrial Research engaged in academic activity in the Academy, for such period, and on such terms and conditions, as may be laid down by the Statutes, and, shall exercise such powers and perform such duties as may be assigned to them by this Act or the Statutes or by the Director.

(2) The Board may assign any other designation for the Associate Directors, for the purpose of administrative convenience or academic efficiency.

24. (1) The constitution and powers of Board of Studies shall be such as may be provided in the Statutes.

(2) The powers, including the financial powers and duties of authorities, officers and other functionaries of the Academy shall be as provided by the Statutes.

25. (1) The Academy shall maintain and retain a fund to which shall be credited—

(a) all fees (including tuition fees) and other charges received by the Academy;

(b) all monies received by the Academy by way of grants, gifts, donations, benefactions, bequests or transfers;

(c) monies for projects undertaken by the Academy;

(d) income from investment made by the Academy or from any other source;

(e) the funds received from the Council of Scientific and Industrial Research, by way of loan or otherwise;

(f) all monies received by the Academy in any other manner or from any other source.

(2) All monies credited to the fund of the Academy shall be deposited in such banks or invested in such manner as the Academy may, with the approval of the Board, decide.

(3) The fund shall be applied for meeting,—

(a) the salaries, allowances and other remuneration of the Chairperson, members of the Board or Faculty, officers and other employees or members of the committees set up by the Academy;

(b) the expenses of the Academy in the discharge of its functions or exercise of its powers under section 8;

(c) the expenses on objects of, and for purposes authorised by, this Act.

(4) All expenditure of the Academy shall be within the framework of a budget approved by the Board.

26. (1) The Academy shall maintain proper and separate accounts giving therein the details of all receipts in, and, expenditure from, such fund and other relevant particulars.

(2) The accounts referred to in sub-section (1) shall be prepared and got audited before the expiry of six months from the end of each financial year.

(3) The Academy shall submit to the Board and the Council of Scientific and Industrial Research, the accounts referred to in sub-section (1) duly audited under section 27 and signed by the Director, Associate Director in charge of Finance and Associate Director in charge of Administration.

Associate

Directors.

Powers of
other
authorities.

Funds of
Academy.

Accounts.

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(4) The Council of Scientific and Industrial Research referred to in sub-section (3), the Board and any other person appointed by them in connection with the audit of the accounts of the Academy shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect any of the offices of the Academy.

27. (1) The accounts of the Academy shall, without prejudice to the provisions contained in the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service)

Act, 1971, be audited by auditors who may be appointed by the Board for the term of one year and such auditors shall be eligible for re-appointment.

(2) No person shall be eligible to be appointed as an auditor under sub-section (1) unless he is a chartered accountant as defined in clause (b) of sub-section (1) of section 2 of the Chartered Accountants Act, 1949, and who has obtained a certificate of practice under sub-section (1) of section 6 of that Act.

(3) The accounts of the Academy shall, after the completion of the audit under subsection (1) and submission thereof to the Board and the Council of Scientific and Industrial Research be published on the website of the Academy.

28. (1) The Statutes of the Academy shall be enacted by the Board.

(2) Without prejudice to the provisions contained in sub-section (1), the Senate may make recommendations for enactment of Statutes to the Board.

(3) The Board may, from time to time, make new Statutes or may amend or repeal or rescind the Statutes with effect from such date as it may direct.

29. Subject to the provisions of this Act, the Statutes may provide for all or any of the matters considered necessary by the Board for functioning of the Academy within the framework of this Act, including the following matters, namely:—

(a) the conferment of degrees and diplomas;

(b) the constitution, powers and functions of the Board of Studies;

(c) the tuition fee and other fees to be charged;

(d) the institution of fellowships, scholarships, medals and prizes;

(e) the term of office and the method of appointment of officers of the Academy;
(f) the qualification of Faculty of the Academy (other than the scientists of the Council of Scientific and Industrial Research engaged in the service of the Academy), officers and other staff of Academy:

Provided that the scientists of the the Council of Scientific and Industrial Research engaged in the service of the Academy shall be governed by the qualifications specified by the Council and nothing contained in this Act shall be construed to disqualify them from undertaking the service of the Academy or engaging them as Faculty of the Academy;

(g) the classification, the method of appointment and the determination of the terms and conditions of service of Faculty, officers and other staff of the Academy;

(h) the provision of insurance fund, provident fund and other retirement benefits, for the benefit of the Faculty, officers and other staff of the Academy;

(i) the constitution, powers and duties of authorities of the Academy;

(j) the establishment and maintenance of hostels;

(k) the conditions of residence of students of the Academy and the levying of fees for residence in the hostels and of other charges;

Audit of
accounts and
its
publication.

Statutes.

Matters to be
provided by
Statutes.

56 of 1971.

38 of 1949.

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(l) the allowances to be paid to the Chairperson and other members of the Board and any committee constituted by the Academy;

(m) the meetings of the Board, the Senate, or any committee, the quorum at such meetings and the procedure to be followed in the conduct of their business;

(n) any other matter which may be required or necessary for the purposes of this Act.

30. (1) Subject to the provisions of this Act and the Statutes, the Ordinances of the Academy may provide for all or any of the following matters, namely:—

(a) the admission of the students;

(b) the courses of study;

(c) the conditions under which students shall be admitted and shall be eligible for degrees, diplomas and certificates and to the examinations of the Academy, and shall be eligible for the degrees, diplomas and certificates;

(d) the conditions of award of the fellowships, scholarships, medals and prizes;

(e) the condition and mode of appointment and duties of examining bodies, examiners and moderators;

(f) the conduct of examinations;

(g) the maintenance of discipline among students of the Academy;

(h) any other matter which by this Act or the Statute, is to be, or, may be, provided for by the Ordinances.

(2) Save as otherwise provided in this section, Ordinances shall be made by the Senate.

(3) All Ordinances made by the Senate shall have the effect from such date as it may direct, but every Ordinance so made shall be submitted, as soon as may be, to the Board and shall be considered by the Board in its subsequent meeting.

(4) The Board shall have the power by resolution to modify or cancel or rescind any of the Ordinances and such Ordinances shall, from the date of such resolution stand modified accordingly or cancelled or rescinded, as the case may be.

31. (1) There shall be a review of the functioning of the Academy once in every four years by persons of eminence to be appointed by the Council of Scientific and Industrial Research.

(2) The Academy shall meet the expenses for conducting the review under sub-section (1) and upon receipt of the report of such review, the Board may take appropriate action.

(3) In addition to the review under sub-section (1), the Board may conduct review of functioning of administrative and academic wings of the Academy, in such manner and at such intervals, as may be provided in the Statutes.

32. All appointments of the staff of the Academy (except appointment of the Director), shall be made in accordance with the procedure laid down in the Statute, by—

(a) the Board for the academic staff;

(b) the Director, in any other case.

33. (1) Every employee of the Academy shall be appointed on contractual basis under a written contract, which shall be lodged with the Academy and a copy of which shall be furnished to the employee concerned:

Ordinances.

Review of
functioning of
Academy.

Appointments.

Conditions of
service.

15

Provided that all scientists and other employees of the Council of Scientific and Industrial Research engaged in the service of the Academy shall be governed by the service conditions,

rules and regulations of the Council of Scientific and Industrial Research.

(2) The Academy shall have a flexible compensation system which recognizes performance, as laid down in the Statutes, to bring the best talent in the Academy:

Provided that the scientists of the Council of Scientific and Industrial Research—

(a) engaged in the service of the Academy; and

(b) who draw their salary from the Council,

shall be eligible for such allowances or honorarium, as may be determined by the Statute.

34. (1) Any dispute arising out of a contract between the Academy and any of its employees shall, at the request of the employee concerned or at the instance of the Academy, be referred to a Tribunal of Arbitration consisting of one member appointed by the Director, one member nominated by the employee, and such two arbitrators shall appoint the third arbitrator who shall act as the presiding arbitrator.

(2) The arbitration under sub-section (1) shall be governed by the Arbitration and Conciliation Act, 1996.

35. (1) The Chairperson or any Member of the Board other than *ex officio* Members of the Board or Director may, by notice in writing under his hand addressed to the President of the Council of Scientific and Industrial Research, resign his office:

Provided that the Chairperson or such Member or Director shall, unless he is permitted by the President of the Council of Scientific and Industrial Research to relinquish his office sooner, continue to hold office until the expiry of three months from the date of receipt of such notice or until a person duly appointed as his successor enters upon his office or until the expiry of his term of office, whichever is the earliest.

(2) The President of the Council of Scientific and Industrial Research may remove from office the Chairperson or any Member of the Board or the Director, who—

(a) has been adjudged an insolvent; or

(b) being the Director has engaged at any time, during his term of office, in any paid employment; or

(c) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude; or

(d) has become physically or mentally incapable of acting as such Chairperson or Member or Director; or

(e) is of unsound mind and stands so declared by a competent court; or

(f) has acquired such financial or other interest as is likely to affect prejudicially the exercise of his functions as such Chairperson or Member or Director; or

(g) has so abused his position as to render his continuance in office prejudicial to the public interest; or

(h) has been guilty of proved misbehaviour; or

(i) has such other disqualifications as may be prescribed.

(3) Notwithstanding anything contained in sub-section (1), the Chairperson or a Member of the Board or the Director shall not be removed from his office on the grounds specified in clause (f) or clause (g) or clause (h) of sub-section (1), except by an order made by the President of the Council of Scientific and Industrial Research after an inquiry made in this behalf in which such Chairperson or Member or Director has been informed of the Arbitration.

Resignation,
Removal and
suspension of
Chairperson
and other
Members or
Director.

26 of 1996.

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charges against him and given a reasonable opportunity of being heard in respect of those charges.

(4) In the event of inquiry instituted under sub-section (2), the President of the Council of Scientific and Industrial Research may suspend such Chairperson or Member or Director against whom inquiry has been instituted for a period not exceeding six months if it is considered necessary in public interest.

(5) The President of the Council of Scientific and Industrial Research may, by rules, regulate the procedure for the inquiry referred to in sub-section (2).

(6) In case any nominated member under clause (k) of sub-section (1) of section 11 in the Board incurs any of the disqualifications under clauses (a) to (i) of sub-section (1), such nominated member shall not be eligible to be nominated as such and his nomination as nominated member shall be revoked by those who nominated such member.

36. The meetings of the Board, Senate, or other committees constituted by the Academy may be held using contemporary tools of information and communication technologies (including video-conferencing) without the members necessarily having to be physically present.

37. No act of the Board or the Academy or any other body set up under this Act or the Statutes, shall be invalid merely by reason of –

(a) any vacancy in, or defect in the constitution thereof; or

(b) any defect in the selection, nomination or appointment of a person acting as a member thereof; or

(c) any irregularity in its procedure not affecting the merits of the case.

38. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act, as appear to it to be necessary or expedient for removing the difficulty:

Provided that no such order shall be made under this section after the expiry of three years from the commencement of this Act.

(2) Every order made under sub-section (1) shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days

which may be comprised in one session or in two or more successive sessions, and if, before

the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the order or both Houses agree that the order should not be made, the order shall thereafter have effect only in such modified

form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that order.

Meetings.

Vacancies,

etc., not to

invalidate acts

or proceedings

of Board,

Academy or

any other

body.

Power to

remove

difficulties.

STATEMENTS OF OBJECTS AND REASONS

India's leadership in science and engineering in future will, *inter alia*, depend on its advancement in integrative and inter-disciplinary areas of science and engineering.

There is a shortage of institutions which offer PhD courses in the field of integrative and inter-disciplinary areas of science and engineering and other advanced courses in such areas.

2. Since mid 1980s, India, whose relative position in respect of PhDs in science and engineering was substantially higher as compared to other Asian countries, has declined. There is an increasing trend amongst the developed countries for producing more PhDs. Unless India keeps pace with other countries in producing more PhDs in the field of integrative and inter-disciplinary areas of science and engineering, it may lag behind other nations which would adversely affect India's pace of economic development.

3. It is proposed to set-up the Academy of Scientific and Innovative Research (Ac SIR) for substantially increasing the number of researchers in integrative and inter-disciplinary 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 requirement in higher education by leveraging the strengths of Council of Scientific and Industrial Research (CSIR) comprising around 4500 scientists in diverse branches of science and engineering and utilising its research and development infrastructure.

4. The proposed legislation aims to establish the Academy of Scientific and Innovative Research for the advancement of learning, and promotion of research in the field of science and technology in association with Council of Scientific and Industrial Research, and further to declare the institution known as the Academy of Scientific and Innovative Research, to be an institution of national importance, and to provide for its incorporation and matters connected therewith or incidental thereto.

5. The proposed Academy of Scientific and Innovative Research shall, *inter alia*,—

(a) be governed, at the apex level by a Board of Governors, consisting of highly distinguished and eminent persons in the field of science and technology, Atomic Energy and Space and outstanding scientists;

(b) use, the infrastructure and scientific manpower of the Council of Scientific and Industrial Research for teaching and research purposes for mutual benefit; (c) primarily focus on research and imparting instruction in such areas as are not ordinarily taught in regular academic universities in India by disseminating advanced knowledge in science and technology, and by providing teaching and research facilities in frontline branches of learning and also in emerging areas;

(d) establish linkages with industries in India and outside for the promotion of science and technology by providing teaching and research facilities in frontline branches of learning;

(e) conduct courses in inter-disciplinary and multi-disciplinary areas covering natural sciences, life sciences, mathematical and computational sciences, engineering, etc., and create an ambience for learning and scholarship in advanced science and technology;

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(f) function as an autonomous institution which would generate its own funds from monies received by it, *inter alia*, by way of all fees (including tuition fees) and other charges received, grants, gifts, donations, benefactions, bequests or transfers, monies for projects undertaken, income from investment made by the Academy and the funds received from the Council of Scientific and Industrial Research, by way of loan or otherwise.

6. The establishment of the proposed Academy of Scientific and Innovative Research would substantially increase research in inter-disciplinary and transdisciplinary

areas. It is expected that Academy would produce from 5th year onwards 1000 PhDs in science and technology and 120 PhDs in engineering every year.

7. The Notes on clauses explain the provisions of the Bill.

8. The Bill seeks to achieve the above objectives.

NEW DELHI; PRITHVIRAJ CHAVAN.

The 7th July, 2010.

Notes on clauses

Clause 2.—This clause seeks to define certain expressions used in the Bill.

Clause 3.—This clause provides for the establishment of Academy of Scientific and Innovative Research which shall be a body corporate and having its headquarters at such place as the Central Government may, by notification, specify. The Academy can also have such number of regional centres and campuses, as it may deem fit.

Clause 4.—This clause lays down the objects of the Academy of Scientific and Innovative Research.

The Academy shall primarily focus on research and imparting instruction in such areas as are not ordinarily taught in regular academic universities in India. Besides, the curricula, pedagogy and evaluation of the Academy shall be innovative and directed towards creating highest quality personnel with cross-disciplinary knowledge, aiming to provide leaders in the field of science and technology. The objects of the Academy, *inter alia*, shall be to (i) disseminate advanced knowledge in science and technology, by providing teaching and research facilities in such branches of learning as it may deem fit, particularly in emerging areas and such areas as may emerge in future; (ii) undertake inter-disciplinary studies and research; (iii) conduct courses in, and integrate into its courses, inter-disciplinary and multidisciplinary areas covering natural sciences, life sciences, mathematical and computational sciences, medical sciences, engineering, applied art, humanities, social sciences, law relating to these areas and interfaces thereof; (iv) create an ambience for learning and scholarship in advanced science and technology instead of exclusively focusing on marks or grades; (v) educate and train manpower in scientific and technological fields, collaborate, in appropriate areas in the field of science and technology, with reputed universities and institutions in India or outside India; (vi) establish linkages with industries in India and outside India for the promotion of science and technology; (vii) promote research in science and technology having a bearing on social, economic, cultural, intellectual and academic welfare of the people.

Clause 5. —This clause contains provisions relating to relationship of Academy with Council of Scientific and Industrial Research.

It provides that the Academy of Scientific and Innovative Research, within two weeks of the commencement of the proposed legislation, shall, enter into a Memorandum of Understanding with the Council of Scientific and Industrial Research, for the purposes of its

affiliation with the Academy for the purposes of academics, teaching and award of degrees or diplomas. The persons pursuing the studies in the Council of Scientific and Industrial Research for award of any degree or diploma, be awarded after entering of such Memorandum

of Understanding, degrees or diplomas by the said Academy. Any person pursuing any academic or research course, before the commencement of the proposed legislation, in the

Council of Scientific and Industrial Research for award of any degree or diploma and registered

for the said purpose with any other university, may, with the approval of the university with which such person is registered, migrate after such commencement to the Academy of Scientific and Innovative Research and be registered with the said Academy for grant of the

same degree or diploma by the Academy and such person shall be deemed to have migrated and registered with the Academy at the same level of study in the university from which such

person migrated.

This clause further provides that the Academy of Scientific and Innovative Research shall be, provided, or, allowed to use, the infrastructure and scientific manpower of the Council of Scientific and Industrial Research for teaching and research purposes for mutual benefit.

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Clause 6. — This clause contains provisions for declaration of the Academy of Scientific and Innovative Research as an institution of national importance.

Clause 7. — This clause contains provisions for transfer of assets, liabilities, etc., of existing Academy to Academy established under this proposed legislation and other provisions, etc.

It, *inter alia*, provides that every employee (including those appointed for imparting instruction or conducting research in the existing Academy) holding any office under the existing Academy or teaching therein immediately before that date shall hold his office in the

Academy or continue teaching therein by the same tenure and upon the same terms and conditions of service as respects remuneration, leave, provident fund, retirement and other terminal benefits as he would have held such office if the Academy had not been established

and shall continue to do so as an employee of the Academy or until the expiry of the period of six months from that date if such employee opts not to be the employee of the Academy within such period.

It further provides that any person pursuing any academic or research course, before the commencement of the proposed legislation, in the existing Academy for award of any degree or diploma or certificate shall be entitled to pursue such academic or research course

after the establishment of the Academy under the proposed legislation, and be registered with the said Academy for grant of the same degree or diploma or certificate by the Academy

established under the proposed legislation, and such person shall be deemed to have migrated

and registered with the Academy established under the proposed legislation, at the same level of study in the existing Academy from which such person migrated.

It also provides that any person, who immediately before the commencement of the proposed legislation, had been awarded a degree or diploma or certificate for having qualified

any course by the existing Academy, shall be entitled to the award of an equivalent degree or diploma by the Academy subject to approval by the Board of the Academy.

Clause 8.—This clause lays down the functions and powers of the Academy of Scientific and Innovative Research.

It provides that the Academy shall, discharge its functions, and exercise powers, mentioned in that clause which, *inter alia*, include: to grant, subject to such conditions as the Academy may determine, diplomas or certificates and confer degrees or other academic distinctions on the basis of such methods of evaluation and to hold its examinations, as the Academy may, from time to time, determine and to withdraw any such diplomas, certificates,

degrees or other academic distinctions for good and sufficient cause; to frame Statutes and Ordinances and to alter, modify or rescind the same; to co-operate or collaborate or associate

with any body including, any university or institution, or industry, located in India or outside

India; to conduct research, advisory and consultancy services with or for any entity, to borrow, on the security of property of the Academy or otherwise, money for the purposes of

the Academy or utilise its property for such purposes as are in conformity with the spirit and

object of this proposed legislation; to co-operate or collaborate or associate with any body including, any university or institution, or industry, located in India or outside India; to engage scientists of the Council of Scientific and Industrial Research as Faculty in imparting

instruction and conducting research in the Academy; to fix, demand and receive payment of

fees and other charges; to lay down conditions of service for all categories of employees, including their code of conduct, etc.

It further provides that in exercising its powers it shall be the endeavour of the Academy to maintain an all India character and high standards of teaching and research.

Clause 9.—This clause provides that the Academy of Scientific and Innovative Research shall be open to all castes, creed, race or class and it shall not be lawful for the Academy to adopt or impose on any person, any test whatsoever of religious belief or profession in order to be entitled to be appointed as a Faculty of the Academy or to hold any

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other office therein, or to be employed therein or to be admitted as a student in the Academy

or to graduate thereat or to enjoy or exercise any privilege thereof.

However, the Academy of Scientific and Innovative Research can make special provision for the employment or admission of women, persons with disabilities or of persons

belonging to the weaker sections of the society and, in particular, of the Scheduled Castes, the Scheduled Tribes and the other socially and educationally backward classes of citizens but no such special provision can be made on the ground of domicile.

Clause 10. —This clause provides that (a) Board of Governors; (b) Senate; (c) Director;

(d) Boards of Studies; (e) such other authorities, as may be declared by the Statutes to be the authorities of the Academy of Scientific and Innovative Research shall be the authorities of the Academy.

Clause 11. —This clause provides for the Composition of Board of Governors which shall consist of: (i) the person to be appointed by the President of the Council of Scientific and Industrial Research, on the recommendation of the selection Committee as Chairperson of the Board; (ii) the Director-General of the Council of Scientific and Industrial Research as Vice-Chairperson.

The President of the Indian National Science Academy, the Chairman, Atomic Energy Commission, Government of India, the Chairman, Space Commission, Government of India,

the Chairman, University Grants Commission, Government of India, the Finance Secretary in

the Ministry of Finance, Government of India, and the Director of the Academy, shall be *ex officio* members of the Board of Governors.

In addition to the Chairperson, Vice-Chairperson and five *ex officio* members, the Board of Governors shall consist of nominated members who shall be: (i) the heads of three premier institutions in the field of imparting education in Science and Technology; (ii) four distinguished scientists or academicians of global eminence, of which two should be from reputed institutions outside India; (iii) three eminent industrialists or technologists; (iv) four distinguished scientists or outstanding scientists or Directors of laboratories of Council of Scientific and Industrial Research. The Associate Director in charge of administration of the

Academy shall be the Secretary of the Board.

Clause 12.—This clause contains provisions for appointment of Chairperson of the Board of Governors of the Academy of Scientific and Innovative Research .

It, *inter alia*, provides that the Chairperson of the Board of Governors of the Academy of Scientific and Innovative Research shall be appointed by the President of the Council of Scientific and Industrial Research, on the recommendation of the selection committee constituted under sub-clause (2) of this clause. No person can be selected and appointed as Chairperson of the Board of Governors of the Academy of Scientific and Innovative Research

unless he is an Indian citizen.

The Director-General of the Council of Scientific and Industrial Research, being the *ex officio* Vice-Chairperson of Board of Governors of the Academy of Scientific and Innovative

Research, shall act as the Chairperson of the said Board until the first Chairperson of the Board is selected and appointed in accordance with the provisions of this proposed legislation.

The Chairperson of the Board of Governors of the Academy of Scientific and Innovative Research shall be appointed on the recommendations of the selection committee referred to in this clause. The Chairperson shall exercise such other powers and perform such other functions as may be assigned to him by this Act or the Statutes.

Clause 13. —This clause contains provisions for nomination of distinguished scientists or academicians of global eminence, eminent industrialists or technologists and heads of

three premier institutions in the field of imparting education in science and technology. The heads of three premier institutions in the field of imparting education in science and technology, referred to in clause (h), the distinguished scientists or academicians of 22

global eminence referred to in clause (i), and eminent industrialists or technologists referred

to in clause (j) of sub-section (1) of section 11, shall be nominated, by the President of the Council of Scientific and Industrial Research.

Clause 14.—This clause contains provisions relating to nomination of distinguished scientists or outstanding scientists of Council of Scientific and Industrial Research or Directors

of Council of Scientific and Industrial Research laboratories. The nomination of distinguished

scientists or outstanding scientists of the Council of Scientific and Industrial Research or Directors of Council of Scientific and Industrial Research laboratories, referred to in clause (k) of sub-section (1) of section 11 shall be made by the Governing Body of the Council of Scientific and Industrial Research.

Clause 15.—This clause contains provisions for allowances payable to members of the Board of Governors of the Academy of Scientific and Innovative Research.

It provides that the members of the Board shall be entitled to such allowances, if any, from the Academy of Scientific and Innovative Research, as may be provided for, in its Statutes but no member other than the Director of the Academy referred to in *item (l)* of subclause

(1) of clause 11 shall be entitled to any salary by reason of this section.

Clause 16. —This clause contains provisions for the term of office of members of Board of Governors of the Academy of Scientific and Innovative Research.

The term of office of the Chairperson or any other nominated member of the Board shall, save as otherwise provided in this clause, be four years, being one term of the Board and they shall not be eligible to be re-appointed as Chairperson or nominated as a member, as

the case may be. However, an outgoing member of the Board shall, unless or otherwise directed, continue in office until another person is appointed, or, as the case may be, nominated as a member in his place. The term of office of an *ex officio* member shall continue

as long as he holds the office by virtue of which he has been nominated as a member. One-fourth

of the members, being distinguished scientists or outstanding scientists or Directors of laboratories of the Council of Scientific and Industrial Research nominated under item (k)

of sub-clause (1) of clause 11, shall retire every year and new members shall be nominated in

their place in accordance with the provisions of proposed legislation.

However, the members, being distinguished scientists or outstanding scientists of the Council of Scientific and Industrial Research or Directors of the Council of Scientific and Industrial Research laboratories nominated under item (k) of sub-clause (1) of clause 11, immediately after the commencement of proposed legislation for the first time, may hold

office for such period, as may be specified in their nomination and provisions of this subsection

shall not be applicable to such nominated member. The period of term of office of the Chairperson or any other nominated member of the Board [other than *ex officio* Vice-Chairperson and *ex officio* members and nominated members under item (k) of sub-clause (I)

of clause 11] of the existing Academy shall be counted for the purposes of this sub-section.

Clause 17.—This clause contains provisions relating to powers of Board of the Academy of Scientific and Innovative Research.

It provides that the Board of Governors shall be responsible for the general superintendence, direction and control of the affairs of the Academy and shall exercise all the

powers of the Academy not otherwise provided for by the proposed legislation, the Statutes and the Ordinances, and the Board shall have the power to review the acts of the Senate.

The Board of Governors shall have the powers to: (i) take decisions on questions of policy relating to the administration and working of the Academy; (ii) institute courses of study at the Academy; (iii) make Statutes; (iv) institute and appoint persons to academic as well as other posts in the Academy; (v) consider and modify or cancel or rescind Ordinances;

(vi) consider and pass resolutions on the annual report, the annual accounts and the budget estimates of the Academy for the next financial year, together with a statement of its development plans; (vii) approve investments in infrastructure of the Academy in any land 23

or building; (viii) exercise such other powers and perform such other duties as may be conferred or imposed upon it by the proposed legislation or the Statutes.

The Board shall also have the power to appoint such committees of one or more persons as it considers necessary for exercise of its powers and the performance of its duties

and hold enquiries under the proposed legislation.

Clause 18.—This clause contains provisions relating to composition of Senate of the Academy of Scientific and Innovative Research.

It provides that the Senate shall consist (a) the Director, *ex officio*, who shall be the Chairperson of the Senate; (b) all Associate Directors, *ex officio* members; (c) all Deans of the

Academy, *ex officio* members; (d) two Professors from each area of study represented by the

Boards of Studies of the Academy, as may be nominated by the Board, *ex officio* members;

(e) two scientists of the Council of Scientific and Industrial Research, who being the youngest

in age; and recipient of Shanti Swaroop Bhatnagar Award; and who are also Faculty of the Academy, as may be nominated by the the Director-General of the Council of Scientific and

Industrial Research; (f) two scientists of the Council of Scientific and Industrial Research, who being the youngest in age; and recipient of CSIR-Young Scientist Award; and who are Faculty of the Academy, as may be nominated by the Director-General of the Council of Scientific and Industrial Research; (g) three Directors or distinguished scientists or outstanding

scientists of the Council of Scientific and Industrial Research laboratories, nominated by its Director-General; (h) three persons, not being the employees of the Academy or the Council

of Scientific and Industrial Research, to be nominated by the Chancellor in consultation with

the Director from amongst educationists of repute, one being from each of the fields of science, engineering and social sciences; (i) such other members of the staff as may be laid down in the Statutes.

The tenure of the nominated members of the Senate shall be two years. The Senate shall not, at any time, have less than fifty per cent. of its members from the Council of Scientific and Industrial Research scientists teaching in the Academy.

Clause 19.—This clause contains provisions relating to powers of Senate of the Academy of Scientific and Innovative Research.

It provides that the Senate of the Academy shall, subject to the provisions of the proposed legislation, the Statutes and the Ordinances, have the control and general regulation,

and be responsible for the maintenance of standards of instruction, education and examinations in the Academy and exercise such other powers and perform such other duties

as may be conferred or imposed upon it by the Statutes and Ordinances.

Clause 20.—This clause contains provisions relating to Chancellor of the Academy of Scientific and Innovative Research.

It provides that the Chairperson of the Board shall be the Chancellor of the Academy.

The Chancellor shall ordinarily preside at the Convocation of the Academy.

Clause 21.—This clause contains provisions relating to Director of the Academy of Scientific and Innovative Research.

It provides that the Director shall be the principal academic and executive officer of the Academy and shall be responsible for the administration of the Academy and imparting instruction, research and maintenance of discipline.

Clause 22.—This clause contains provisions for appointment and duty of Director of Academy of Scientific and Innovative Research, etc.

It provides that the Director shall be appointed, by the President of Council of Scientific and Industrial Research, on the recommendation of the selection committee which shall consist of : (a) the Chairperson of the Board; (b) the Vice-Chairperson of the Board; (c) the President of the Indian National Science Academy; (d) the Chairman, Atomic Energy

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Commission, Government of India; (e) the Chairman, Space Commission, Government of India. It shall be the duty of the Director that the decisions taken by the Board of Governors are implemented. The Director shall submit an annual report and accounts of the Academy to

the Board. The Director shall exercise such other powers and perform such other duties as may be assigned to him by the proposed legislation or the Statutes or the Ordinances. The term of the Director shall be five years.

Clause 23.—This clause contains provisions for Associate Directors of the Academy of Scientific and Innovative Research, etc.

It provides that the Associate Directors of the Academy shall, be appointed by the Director, with the approval of the Board of Governors from amongst Professors of the

Academy or scientists of the Council of Scientific and Industrial Research engaged in academic

activity in the Academy, for such period, and on such terms and conditions, as may be laid down by the Statutes, and, shall exercise such powers and perform such duties as may be assigned to them by the proposed legislation or the Statutes or by the Director. The Board may assign any other designation for the Associate Directors, for the purpose of administrative convenience or academic efficiency.

Clause 24.—This clause contains provisions relating powers of other Authorities of the Academy of Scientific and Innovative Research, etc.

It provides that the constitution and powers of Boards of Studies shall be such as may be provided in the Statutes. The powers, including the financial powers and duties of authorities, officers and other functionaries of the Academy shall be as provided by the Statutes.

Clause 25.—This clause contains provisions for maintenance and retention of Funds of the Academy of Scientific and Innovative Research.

It provides that the Academy shall maintain and retain a fund to which shall be credited (a) all fees (including tuition fees) and other charges received by the Academy; (b) all monies

received by the Academy by way of grants, gifts, donations, benefactions, bequests or transfers; (c) monies for projects undertaken by the Academy; (d) income from investment made by the Academy or from any other source; (e) the funds received from the Council of Scientific and Industrial Research, by way of loan or otherwise; (f) all monies received by the

Academy in any other manner or from any other source. All monies credited to the fund of the Academy shall be deposited in such banks or invested in such manner as the Academy may, with the approval of the Board of Governors, decide.

The fund shall be applied for meeting: (a) the salaries, allowances and other remuneration of the Chairperson, members of Board or Faculty, officers and other employees

or members of the committee set up by the Academy of the Academy; (b) the expenses of the

Academy in the discharge of its functions or exercise of its powers under clause 8; (c) the expenses on objects of and for the purposes authorised by this Act. All expenditure of the Academy shall be within the framework of a budget approved by the Board.

Clause 26.—This clause relates to maintenance of accounts of the Academy of Scientific and Innovative Research.

It provides that the Academy shall maintain proper and separate accounts giving therein the details of all receipts in, and, expenditure from, such fund and other relevant particulars. The accounts shall be prepared and got audited before the expiry of six months from the end of each financial year. The Academy shall submit to its Board of Governors and

the Council of Scientific and Industrial Research, the accounts duly audited and signed by all the Director, and Associate Director in charge of Finance and Associate Director in charge of Administration. The Council of Scientific and Industrial Research and the Board and any other person appointed by them in connection with the audit of the accounts of the Academy shall have the right to demand the production of books, accounts, connected

vouchers and other documents and papers and to inspect any of the offices of the Academy.
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Clause 27.—This clause relates to audit of accounts of the Academy of Scientific and Innovative Research and its publication.

It provides that the accounts of the Academy shall, without prejudice to the provisions contained in the Comptroller and Auditor-General's (Duties, Powers and Conditions of Service)

Act, 1971, be audited by auditors who may be appointed by the Board for the term of one year and such auditors shall be eligible for re-appointment. No person shall be eligible to be

appointed as an auditor unless he is a chartered accountant and who has obtained a certificate

of practice. The accounts of the Academy shall, after the completion of the audit and submission thereof to the Board and the Council of Scientific and Industrial Research, be published on the website of the Academy.

Clause 28.—This clause contains provisions relating to Statutes of the Academy of Scientific and Innovative Research.

It provides that the Statutes of the Academy of Scientific and Innovative Research shall be enacted by its Board of Governors. The Senate may make recommendations for enactment of Statutes to the the Board of Governors of the Academy. The Board can, from time to time, make new Statutes or may amend or repeal or rescind the Statutes with effect from such date as it may direct.

Clause 29.—This clause contains provisions relating to matters to be provided by the Statutes of the Academy of Scientific and Innovative Research.

It provides that the Statutes may provide for all or any of the matters considered necessary by its Board of Governors for functioning of the Academy within the framework of the proposed legislation including: (a) the conferment of degrees and diplomas; (b) the constitution, powers and functions of Boards of Studies; (c) the tuition fee and other fees to be charged; (d) the institution of fellowships, scholarships, medals and prizes; (e) the term of

office and the method of appointment of officers of the Academy; (f) the qualification of Faculty of the Academy, (other than the scientists of the the Council of Scientific and Industrial Research engaged in the service of the Academy) officers and other staff of Academy; (g) the classification, the method of appointment and the determination of the terms and conditions of service of Faculty, officers and other staff of the Academy; (h) the provision of insurance fund, provident fund and other retirement benefits, for the benefit of the Faculty, officers and other staff of the Academy; (i) the constitution, powers and duties of authorities of the Academy; (j) the establishment and maintenance of hostels; (k) the conditions of residence of students of the Academy and the levying of fees for residence in the hostels and of other charges; (l) the allowances to be paid to the Chairperson and other members of the Board and any committee constituted by the Academy; (m) the meetings of the Board, the Senate, or any committee, the quorum at such meetings and the procedure to be followed in the conduct of their business.

However, the scientists of the the Council of Scientific and Industrial Research engaged in the service of the Academy shall be governed by the qualifications specified by the Council and nothing contained in this Act shall be construed to disqualify them from undertaking the service of the Academy or engaging them as Faculty of the Academy.

Clause 30.—This clause contains provisions relating to Ordinances of the Academy of Scientific and Innovative Research.

It provides that the Ordinances of the Academy may, provide for all or any of the matters specified in this clause. These matters, *inter alia*, relate to, (a) the admission of the students; (b) the courses of study; (c) the conditions under which students shall be admitted and shall be eligible for degrees, diplomas and certificates and to the examinations of the Academy, and shall be eligible for the degrees, diplomas and certificates; (d) the conditions of award of the fellowships, scholarships, medals and prizes; (e) the condition and mode of appointment and duties of examining bodies, examiners and moderators; (f) the conduct of examinations; (g) the maintenance of discipline among students of the Academy. The

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Ordinances shall be made by the Senate. All Ordinances made by the Senate shall have the effect from such date as it may direct, but every Ordinance so made shall be submitted, as soon as may be, to the Board of Governors and shall be considered by the Board in its subsequent meeting. The Board shall have the power, by resolution, to modify or cancel or rescind any of its Ordinances and such Ordinances shall, from the date of such resolution stand modified accordingly or cancelled or rescinded, as the case may be.

Clause 31.—This clause contains provisions for review of functioning of the Academy of Scientific and Innovative Research.

It provides that there shall be a review of the functioning of the Academy once in every four years by persons of eminence to be appointed by the Council of Scientific and Industrial

Research. The Academy shall meet the expenses for conducting the review. Upon receipt of

the report of such review, the Board may take appropriate action. In addition to the review, the Board may conduct review of functioning of administrative and academic wings of the Academy, in such manner and at such intervals, as may be provided in the Statutes.

Clause 32.—This clause relates to appointments of the staff of the the Academy of Scientific and Innovative Research, (except appointment of the Director).

It provides that all appointments of the staff of the Academy, (except appointment of the Director) shall be made in accordance with the procedure laid down in the Statute, by the

Board of Governors for the academic staff and by the Director, in any other case.

Clause 33.—This clause contains provisions for conditions of service of employees of the Academy of Scientific and Innovative Research.

It provides that every employee of the Academy shall be appointed on contractual basis under a written contract, which shall be lodged with the Academy and a copy of which

shall be furnished to the employee concerned. However, all scientists and other employees of the Council of Scientific and Industrial Research engaged in the service of the Academy shall be governed by the service conditions, rules and regulations of the Council of Scientific

and Industrial Research. The Academy shall have a flexible compensation system which recognises performance, as laid down in the Statutes, to bring the best talent in the Academy.

The scientists of the Council of Scientific and Industrial Research engaged in the service of

the Academy and who draw their salary from the Council shall be eligible for such allowances

or honorarium, as may be determined by Statute.

Clause 34.—This clause contains provisions for arbitration between employees of the Academy of Scientific and Innovative Research and the Academy.

It provides that any dispute arising out of a contract between the Academy and any of its employees shall, at the request of the employee concerned or at the instance of the Academy, be referred to a Tribunal of Arbitration consisting of one member appointed by the

Director, one member nominated by the employee, and the such two arbitrators shall appoint

the third arbitrator who shall act as the Presiding arbitrator. The arbitration shall be governed

by the Arbitration and Conciliation Act, 1996.

Clause 35.—This clause contains provisions for resignation, removal and suspension of Chairperson, other Members and Director of the Academy of Scientific and Innovative Research.

It, *inter alia*, provides that the President of the Council of Scientific and Industrial Research may remove from office the Chairperson or any Member of the Board of Governors or the Director on any of the grounds mentioned in the said clause. It further provides that the Chairperson or a Member of the Board of Governors or the Director shall not be removed from his office on the grounds that he has acquired such financial or other interest as is likely

to affect prejudicially the exercise of his functions as such Chairperson or other Member or Director; or has so abused his position as to render his continuance in office prejudicial to the public interest; or has been guilty of proved misbehaviour, except by an order made by 27

the President of the Council of Scientific and Industrial Research, after an inquiry made in this behalf in which such Chairperson or such Member or the Director has been informed of the charges against him and given a reasonable opportunity of being heard in respect of those charges. In the event of inquiry instituted, the President of the Council of Scientific and Industrial Research may suspend such Chairperson or other Member or Director against

whom inquiry has been instituted for a period not exceeding six months if it considers necessary in public interest. In case any nominated member under item (k) of sub-clause (I) of clause 11 in the Board of Governors incurs any of the disqualifications under clauses (a) to (i) of sub-clause (I), such nominated member shall not be eligible to be nominated as such

and his nomination as nominated member shall be revoked by those who nominated such member.

Clause 36.—This clause contains provisions for meetings of the the Board of Governors, Senate, or other committees constituted by the Academy of Scientific and Innovative Research.

It provides that the meetings of the Board, Senate, or other committees constituted by the Academy may be held using contemporary tools of information and communication technologies (including video-conferencing) without the members necessarily having to be physically present.

Clause 37.—This clause provides that, certain acts not to invalidate acts or proceedings of the Board of Governors of the Academy of Scientific and Innovative Research or any other body.

It provides that no act of the Board or the Academy of Scientific and Innovative Research or any other body set up under this Act or the Statutes, shall be invalid merely by reason of any vacancy in, or defect in the constitution thereof; or any defect in the selection, nomination or appointment of a person acting as a member thereof; or any irregularity in its procedure not affecting the merits of the case.

Clause 38.—This clause confers power upon the Central Government to remove difficulties which may arise in giving effect to the provisions of this proposed legislation. It can, by order, make such provisions, not inconsistent with the provisions of this proposed legislation, as appear to it to be necessary or expedient for removing the difficulty. No such order can be made after the expiry of three years from the commencement of the proposed legislation and such order is required to be laid before each House of Parliament.

FINANCIAL MEMORANDUM

The Academy of Scientific and Innovative Research Bill, 2010 proposes to establish the Academy of Scientific and Innovative Research in association with the Council of Scientific and Industrial Research.

2. Clause 25 of the Bill provides for the financial resources of the Academy and details the sources as: (a) of all fees (including tuition fees) and other charges received by the Academy; (b) all monies received by the Academy by way of grants, gifts, donations, benefactions, bequests or transfers; (c) monies for projects undertaken by the Academy; (d) income from investment made by the Academy or from any other source; (e) the funds received from the Council of Scientific and Industrial Research, by way of loan or otherwise; (f) all monies received by the Academy in any other manner or from any other source.

3. The Government has approved that the Council of Scientific and Industrial Research can extend financial assistance from its laboratory reserves to the Academy, up to an amount of Rupees fifteen crores.

4. The Bill does not involve any expenditure of recurring or non-recurring nature directly from the Consolidated Fund of India.

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to establish an Academy for furtherance of the advancement of learning and prosecution of research in the field of science and technology in association with Council of Scientific and Industrial Research and to declare the institution known as the Academy of Scientific and Innovative Research, to be an institution of national importance to provide for its incorporation and matters connected therewith or incidental thereto.

*(Shri Prithviraj Chavan, Minister of State for Science and Technology,
Earth Sciences)*

GMGIPMRND—3107LS(S4)—22-07-2010.

MINUSTES

II

SECOND MEETING

The Committee met at 11.00 a.m. on Friday, the 22nd October, 2010 in Committee Room 'C', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. Dr. T. Subbarami Reddy - *Chairman*

RAJYA SABHA

2. Shri Rajiv Pratap Rudy
3. Dr. Chandan Mitra
4. Shri Paul Manoj Pandian
5. Shri Jabir Husain
6. Dr. Barun Mukherji
7. Prof. M.S. Swaminathan

LOK SABHA

8. Shri Ninong Ering
9. Shri A. Ganeshamurthi
10. Shri D.V. Sadananda Gowda
11. Shri Jayaram Pangi
12. Shri Gajendra Singh Rajukhedi
13. Shri Francisco Sardinha
14. Dr. Rajan Sushant

SECRETARIAT

Smt. Agnes Momin George, Joint Secretary

Shri Alok Chatterjee, Director

Shri V.S.P. Singh, Joint Director

Shri Girija Shankar Prasad, Assistant Director

Representatives from the Department of Scientific & Industrial Research

1. Shri S.K. Brahmachari, Secretary & Director General
2. Dr. Sivaram, Director, National Chemical Laboratory, Pune
3. Dr. Tapan Chakraborty, Director, NEERI, Nagpur
4. Dr. Rajesh Gokhale, Director, IGIB, Delhi
5. Dr. R.C. Budhani, Director, NPL, Delhi.
6. Dr. Gautam Biswas, Director, CMERI, Durgapur
7. Dr. Gangan Pratap, Director, NISCAIR, Delhi
8. Dr. Mohan Rao, Director, CCMB, Delhi
9. Dr. Nagesh R. Iyer, Director, SERC, Chennai
10. Dr. K. Jayakumar, Joint Secretary (Parl.), CSIR
11. Dr. Sudeep Kumar, Head, PPD, CSIR, Delhi
12. Shri Zakir Thomas, Project Director, OSDD & Head DGTC, CSIR, Delhi
13. Shri Debashish Banerjee, Scientist, CSIR, Delhi

2. At the outset, the Chairman welcomed the members and Secretary, DSIR alongwith his team of officials to the meeting of the Committee. He requested the Secretary to highlight the salient features of 'The Academy of Scientific and Innovative Research Bill, 2010'. He also desired to know the main reasons which have led to the origin of the Bill and the significant changes in the scientific research scenario that are proposed to be achieved with the implementation of the various provisions of the Bill.

3. The Secretary then made an elaborate visual presentation highlighting salient features of the proposed Academy. He informed the Committee that the main objective of the Bill was to establish the Academy as an institution of excellence with powers to award degrees in inter-disciplinary and multi-disciplinary areas, not ordinarily taught in academic institutions and Universities. He also informed the Committee about the vast network of laboratories/institutes covering various fields of sciences falling under the Department and the number of students/research scholars who are pursuing research work in those laboratories.

4. Thereafter, Members sought clarifications on the points that emerged out of the presentation. The Secretary replied to them. The Committee enquired from the Secretary whether the scientific progress is dependent on the number of PhDs being produced and whether the Department is maintaining a track record of how these PhDs holders are being engaged for the industrial growth. The Secretary replied that higher qualification always give boost to the personal economic growth of the individual as well as the nation. He informed further that performance of laboratories and institutions are clearly related to the number of PhDs the laboratory has awarded.

5. Prof. M.S. Swaminathan, M.P. was of the view that the Academy which the Bill proposes to establish, should not become one more PhD producing machine, rather it should foster the non-degree diploma programmes which would help upgrade the technical capacity of small scale and rural industry sector. In this context he cited the Chinese concept of Township and Village Enterprises (TVEs). It was also emphasized that the Academy should not focus only on number of researches and patents but it should also ensure their conversion into products and goods for societal benefit.

6. The Secretary while agreeing with the Member informed the Committee that the motto of the Academy is scientific excellence with furthering the aspirations of the masses. Thereafter, the Secretary listed out a number of measures taken to improve the skills of workers and professionals in Jharkhand, Khurja and Jorhat through various laboratories and institutions.

7. It was also enquired whether the Department is open to the idea of Private-Public Partnership model for some of their technical facilities. The Secretary replied that the Department would definitely go for sponsored private public partnership as it has decided not to take budgetary support from Planning Commission.

8. Shri Jabir Husain, M.P. took a very serious view of the fact that while the Bill was introduced in Lok Sabha on the 30th July, 2010, a notification was issued on 17th July, 2010 by the Government operationalising an interim Academy. He enquired that while the Bill was to get the approval of the Parliament, why certain major features of the Bill were operationalised through a Government Resolution? He further stated that the Department had taken it for granted that the Bill would be approved by the Parliament in its original form.

9. The Secretary submitted that on account of urgency of the matter, as a large number of research fellows in various laboratories of the Department are awaiting registration for

PhD under the proposed Academy, the Government has approved for the establishment of an interim academy even before the Parliament clears the Bill in this regard. He submitted further that Indian Institute of Science Education and Research (IISER) has been functioning for the last 3-4 years in a similar way, i.e. through a Government Resolution and is still awaiting clearance from the Parliament, so technically there is no violation. However, the Committee was not satisfied with the way some of the Ministries of the Government are functioning, taking the approval of the Parliament for granted and establishing interim institutes/academies even before being approved by the Parliament. The Committee decided to place on record its disapproval of the tendency on the part of Govt. and some Ministries to take Parliament for granted by issuing executive orders on the matter pending consideration of the Parliament. The Committee also took a serious note of the rejection of recommendations of the Standing Committees and subsequently getting the Bill passed.

The officials then withdrew.

A verbatim record of the proceedings was kept.

10. The Committee adjourned at 12.55 p.m. to meet again at 11.00 a.m. on 28th October, 2010.

III THIRD MEETING

The Committee met at 11.00 a.m. on Thursday, the 28th October, 2010 in Room No. '63', First Floor, Parliament House, New Delhi.

PRESENT

1. Dr. T. Subbarami Reddy - *Chairman*

RAJYA SABHA

2. Shri Saman Pathak
3. Shri Paul Manoj Pandian
4. Shri Jabir Husain
5. Dr. Barun Mukherji
6. Prof. M.S. Swaminathan

LOK SABHA

7. Shri P.C. Chacko
8. Shri A. Ganeshamurthi
9. Shri Jayaram Pangi
10. Shri Gajendra Singh Rajukhedi
11. Shri S.S. Ramasubbu
12. Shri Francisco Sardinha
13. Shri Balakrishna K. Shukla
14. Shri Bibhu Prasad Tarai
15. Shri Mansukhbhai D. Vasava

SECRETARIAT

Dr. D.B. Singh, Joint Secretary

Shri Alok Chatterjee, Director

Shri V.S.P. Singh, Joint Director

Shri Girija Shankar Prasad, Assistant Director

Representatives from the Department of Scientific & Industrial Research

1. Dr. S.K. Brahmachari, Secretary & Director General, CSIR
2. Dr. K.Jayakumar, Joint Secretary

3. Dr. Nagesh R. Iyer, Director, SERC, Chennai
4. Dr. Tapan Chakraborty, Director, NEERI, Nagpur
5. Dr. Gautam Biswas, Director, CMERI, Durgapur

Representatives of the Ministry of Law & Justice(Department of Legal Affairs)

1. Shri D.R.Meena, Secretary
2. Shri M.A. Khan Yusufi, Joint Secretary & Legal Advisor

Representatives of the Ministry of Law & Justice(Legislative Department)

1. Shri V.K.Bhasin , Secretary
2. Dr. Narayana Raju, Joint Secretary & Legislative Counsel
3. Shri Diwakar Singh, Deputy Legislative Counsel

Representative of the Department of Atomic Energy

Dr. Srikumar Banerjee, Secretary

Witness

Prof. V.S. Ramamurthy, Former Secretary, Department of Science & Technology

2. At the outset, the Chairman welcomed the Members of the Committee, Secretaries, officials of the Ministries/Departments and the experts. He informed that the Committee has so far heard the views of the Secretary, Department of Scientific & Industrial Research on 'The Academy of Scientific and Innovative Research Bill, 2010' and today it will have the benefit of views of the distinguished experts and Secretaries who have been invited for the purpose. He requested the experts to give the views on the various provisions of the Bill and also to enlighten the Committee whether it would be more prudent to strengthen the existing infrastructure in Universities in order to increase the number of Ph.Ds and enhance the quality of research rather than setting up a new Academy.

Thereafter, he desired to know from the Secretaries, Ministry of Law & Justice the reasons for issuing a notification for setting up an interim Academy even before the Bill could be passed by the Parliament and asked the Secretary, Legislative Department to respond to his queries.

3. The Secretary, Legislative Department submitted that article 73 of the Constitution of India, provides *inter-alia* that the executive power of the union shall extend to matters with respect to which Parliament has the power to make laws. He also cited past precedents like establishment and continuance of a Pension Fund Regulatory and Development Authority, even though the bill has not been enacted till this date. Similarly SEBI, before becoming a statutory authority under the SEBI Act 1992, was functioning under a resolution of Government of India. Insurance Regulatory and Development Authority (IRDA) continues to function through a resolution while the bill is yet to be passed, he further added. He also submitted that in the instant case Cabinet has given a mandate to set up the interim Academy and the same has been reflected in clause 7 of the Bill.

4. Some members of the Committee, however, were not satisfied and convinced with the submission made by the Secretary. Shri Jabir Hussain, M.P. observed that there are two aspects of the issue- one is legality and the other one is propriety and felt that propriety had been infringed. He also wanted to know the reasons for issuing the notification just 13 days before the introduction of the bill in Lok Sabha.

5. The Secretary, DSIR stated that the idea behind the CSIR getting a degree awarding power was recommended in 2004 by a high powered Committee chaired by Prof. Vijay Kelkar. The Kelkar Committee had referred to the role of CSIR laboratories to take on the role of research universities and seek deemed university status. A committee headed by

Prof. M.M. Sharma also debated this issue. He however, summed up by saying that heightened expectation from students and others made them to go for notifications and setting up of an interim Academy pending Parliamentary approval.

6. Thereafter, the Committee heard the views of former Secretary, Department of Science & Technology. He submitted that this Bill was a very timely and necessary initiative. Drawing a distinction between universities and the proposed Academy, he observed that the up scaling for the industry was not the mandate of the universities but it was the mandate of CSIR. He was of the view that with the setting up of this Academy, CSIR would get good quality students and manpower in the long run which it had not been getting in the last two-three decades. Technology transfer from laboratory to market would also gain momentum because CSIR was in a position to train students in that area. He also suggested that the relationship with the Industry needs to be made broader by involving the industry representatives as faculties and letting the students have access to the facilities existing in the Industry.

7. Prof. M.S. Swaminathan observed that the initiative in CSIR to maximize or optimize the benefits of their vast infrastructure to create a new breed of Ph.Ds was an important one. He felt that if the Academy is going to develop a new breed of Ph.Ds who were well versed in the interface between science and technology and who would be able to stimulate industrial growth, it would be a very important contribution.

8. The Secretary, Department of Atomic Energy observed that uncertainty about future job prospects was one of the main problems in India that a student faced in entering into higher education & therefore, if students knew that after doing Ph.D., they would have a guaranteed job in the CSIR system, then the CSIR would be able to attract very good student. He further stated that the establishment of AcSIR will complement the traditional university structure in the country.

9. Shri Jabir Hussain, M.P. also queried about the low number of women scientists in the country and stated that there was no reference in the bill to women scientists being on the board of Governor or on the faculty to which the Secretary, DSIR responded and cited clause 9(2) of the Bill, which enables the academy to make special provision for the employment or admission of women. However, the member felt that a suitable provision may be included in the bill for compulsory inclusion of women scientists on the board of AcSIR.

The officials then withdrew.

A verbatim record of the proceedings was kept.

10. The Committee then adjourned at 12.50 p.m. to meet again at 11.00 a.m. on 29th October, 2010.

IV

FOURTH MEETING

The Committee met at 11.00 a.m. on Friday, the 29th October, 2010 in Committee Room 'A', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

1. **Dr. T. Subbarami Reddy - Chairman**

RAJYA SABHA

2. Shri Rajiv Pratap Rudy

3. Shri Jabir Husain

LOK SABHA

4. Shri A. Ganeshamurthi

5. Shri Arjun Ram Meghwal
6. Shri Jayaram Pangi
7. Shri Gajendra Singh Rajukhedi
8. Shri S.S. Ramasubbu
9. Shri Francisco Sardinha
10. Shri Bibhu Prasad Tarai

SECRETARIAT

Dr. D.B. Singh, Joint Secretary

Shri Alok Chatterjee, Director

Shri V.S.P. Singh, Joint Director

Shri Giriya Shankar Prasad, Assistant Director

Representatives from the Department of Scientific & Industrial Research

1. Dr. S.K. Brahmachari, Secretary & Director General, CSIR
2. Dr. Nagesh R. Iyer, Director, SERC
3. Dr. Tapan Chakraborty, Director, NEERI

Representative from the Department of Space

1. Shri Shantanu Bhatwadekar, OSD

Witness

1. Prof. Deepak Pental, Vice Chancellor, University of Delhi
 2. Shri Anjan Das, Senior Director, Confederation of Indian Industry (CII)
 3. Dr. D. Sengupta, Senior Advisor, Confederation of Indian Industry (CII)
 4. Shri Jibak Dasgupta, Deputy Director, Confederation of Indian Industry (CII)
2. At the outset, the Chairman welcomed the members, Secretary Department of Scientific & Industrial Research and his team of officials, Prof. Deepak Pental, Vice Chancellor, University of Delhi, Shri Anjan Das, Senior Director and Dr. D. Sengupta, Senior Advisor, Confederation of Indian Industry (CII) to the meeting of the Committee and informed that the Committee has already had the benefit of the views of Secretary, Department of Scientific & Industrial Research, Secretary, Department of Legal Affairs and Secretary, Legislative Department, Ministry of Law and Justice, Secretary, Department of Atomic Energy and Prof. V.S. Ramamurthy, Former Secretary, Department of Science & Technology on the Academy of Scientific and Innovative Research Bill, 2010. He thereafter informed that the Committee would hear the suggestions and reservations of the experts/witnesses, present today, on the various provisions of the Bill. He particularly desired from experts to enlighten the Committee on the significant changes in the scientific research scenario the world over, particularly in the developed countries and in the light of those changes whether the setting up of the Academy was a step in the right direction. First of all, he invited Vice-Chancellor, University of Delhi to present his views.
3. Prof. Deepak Pental, Vice-Chancellor, University of Delhi welcomed the setting up of the Academy and said that it was a good proposal. He stated that CSIR was producing a large number of Ph.Ds in Science, Technology and engineering, but these students had to register under a guide with either Jawahar Lal Nehru University or some other Universities so that they got a degree. This leads, in many cases, to a situation where a guide gets name without doing much. This kind of parasitic collaboration is not a good idea. The bill aims to allow CSIR to register its students for Ph.D and makes it self reliant. He also felt that it would provide scope for high-end inter-disciplinary courses. He, however, suggested that administrative model for the Academy should be kept simple and the name of the academy should be 'Academy of Scientific & Industrial Research' which is the historical name for

CSIR. He further suggested that every doctoral degree holder scientist of CSIR should be eligible to become a faculty member after completion of 3 to 5 years of post-doctoral work either in CSIR or any university in India or abroad.

4. Prof. Pental expressed his concern over a chain of hierarchies viz. professors, Professors of eminence, Distinguished Professors, Outstanding Professors, Senior Professors, Emeritus Professors, Professors, Associate professors, Assistant professors, etc. that are sought to be created in the Academy vide clause 8 (ix) of the Bill. He was of the view that this creates unnecessary hierarchies and the existing pattern in CSIR where every scientist is called as doctor so and so, may be followed in the Academy. He emphasised that 'achievement' should be encouraged. He also felt that the board of the Academy is too big.

5. In reply to a clarification sought from Shri Jabir Hussain, M.P. as to why there has been a substantial decline in the number of Ph.Ds and why sub standard Ph.Ds are coming out of Universities, Prof. Pental stated that the decline of Universities started in the seventies as they became too unwieldy and there was political interference in Universities. Further, there is no apex funding body in India, which funds the universities as existing in developed countries. Failure to put our centers of high-end research in Universities has also contributed to the decline, he observed.

6. The Chairman enquired from the Secretary, DSIR as to how such a big Academy which is sought to be established without any Government grant particularly as it should have infrastructure of international standard. Secretary, DSIR clarified that CSIR was built with public funding and today it has assets worth crores of rupees. The assets with CSIR are 5000 scientists, 40 central laboratories, 37 centers and 37 main campuses besides land, equipments and facilities, and since hub and spoke model is to be adopted, for the Academy, no Government grant had been asked.

7. The representative from the Confederation of Indian Industry (CII) emphasised on the need of multi disciplinary education. He further stated that a clear cut Intellectual Property Rights' ownership policy needs to be articulated in the statute of the academy. The CII also suggested that Innovation and Technology Management aspects also needs to be included in the curriculum of the Academy. The 'CSIR Scientists' should include the community of engineers, technologists and technology managers and there should be a provision in the Bill to include apex industry association.

The officials then withdrew.

A verbatim record of the proceedings was kept.

8. The Committee then adjourned at 12.30 p.m.

V

FIFTH MEETING

The Committee met at 03.00 p.m. on Thursday, the 18th November, 2010 in Room No. '63', First Floor, Parliament House, New Delhi.

PRESENT

1. **Shri Francisco Sardinha - in the Chair***

RAJYA SABHA

2. Shri Saman Pathak
3. Shri Paul Manoj Pandian
4. Prof. M.S. Swaminathan

LOK SABHA

5. Shri P. C. Chacko

6. Shri D.V. Sadananda Gowda
7. Shri Arjun Ram Meghwal
8. Shri Gajendra Singh Rajukhedi
9. Shri S.S. Ramasubbu
10. Shri Bibhu Prasad Tarai

SECRETARIAT

Dr. D.B. Singh, Joint Secretary
Shri Alok Chatterjee, Director
Shri V.S.P. Singh, Joint Director
Shri Girija Shankar Prasad, Assistant Director

Representatives from the Department of Scientific & Industrial Research

4. Dr. S.K. Brahmachari, Secretary, DSIR & Director General, CSIR
5. Dr. Nagesh R. Iyer, Director, SERC, Chennai
6. Dr. Gautam Biswas, Director, CMERI, Durgapur

Witness

- Prof. Sukhadeo Thorat, Chairman, University Grants Commission(UGC)
1. Prof. Dinesh Singh, Vice-Chancellor, University of Delhi

* In the absence of the Chairman, Shri Francisco Sardinha, chaired the meeting.

2. At the outset, the Chairman welcomed the Members of the Committee, Secretary, DSIR and the experts. He informed that the Committee has so far heard the views of the Secretaries of the Department of Scientific & Industrial Research, Legislative Department & Department of Legal Affairs (Ministry of Law & Justice) and Department of Atomic Energy and some experts on 'The Academy of Scientific and Innovative Research Bill, 2010'.

He requested the experts to give their views on the various provisions of the Bill and the significant advances that were likely to be achieved in the scientific research scenario with the enactment of the Bill. He also asked the experts to enlighten the Committee as to whether it would have been more prudent to strengthen the existing infrastructure in Universities to increase the number of Ph.Ds and enhance the quality of research rather than setting up a new Academy for the same purpose and whether the proposed Academy could have been set up by the CSIR under the present UGC guidelines/rules. He invited the Chairman, UGC to respond to his queries first.

3. The Chairman, UGC submitted that, a couple of years ago, a proposal had come to the UGC, to convert the various laboratories into university system particularly in the category of deemed university. A Committee was set up under the Chairmanship of Prof. M.M. Sharma, a renowned scientist, which unanimously supported the idea.

4. Responding to the query of the Chairman as to whether the strengthening of infrastructure in the existing university for Ph.D. could have been thought of as an alternative, he stated that the strengthening of the university system was a sort of an independent issue and in the Eleventh Five Year Plan, there has been a huge initiative to increase the number of universities, as well as to strengthen the existing institution, as it was felt that higher education had been neglected in the past and, therefore this Plan gives top priority to education. He further added that the setting up of the Academy, should be looked upon as an independent initiative of the Department of Scientific & Industrial Research and to that extent, it was a welcome step.

5. The Vice-Chancellor, University of Delhi, welcomed the creation of the Academy. He observed that it could have been set up as another university in the present structure through the UGC, etc. But he endorsed the idea of setting it up outside that umbrella. The essence of academics really lies in its freedom and good ideas would come from all quarters, and possibilities of good ideas coming from a different model, should not be precluded, he added. On that count, he said that he endorsed the Academy.

6. The Vice Chancellor, University of Delhi also stated that various laboratories of the CSIR had been working along the lines of societal needs and interactions, but the kind of cohesion and fluidity of movement which could come through a platform like a new university, was lacking in the present system. He endorsed the new initiative of CSIR and expressed that their structure will enable them to quickly take good things off the shelf, wherever they are available. He further observed that with certain balance between good work, rewards and some checks, good things would flow.

7. Shri Paul Manoj Pandian, M.P. queried regarding the possibility of the UGC supporting the Academy by sanctioning funds so that there was some supervision and monitoring by a higher organization like the UGC which was vested with powers on educational matters in our country.

8. Prof. M.S. Swaminathan, M.P. pointed out that the mandate of the CSIR is to provide scientific and industrial research and development that maximizes the economic, environmental and societal benefits to the people of India and expressed a concern over the possibility of dilution of that specific mandate of CSIR with the creation of the Academy. Shri P.C. Chacko, M.P. further observed that there was no guarantee that the proposed Academy will deliver what other universities have failed to do.

9. The Chairman thereafter pointed out that 'Objects and Reasons' states that the Academy would not require any additional funds from the Government and wanted to know if there was any other Centre of Excellence recognized by the UGC which was functioning without the assistance of the Government and whether it would be possible for the proposed Academy to work smoothly without any Government assistance. He further asked whether the opening of the Academy would lead to duplicity as the university system was already engaged in imparting education in those areas?

10. The Secretary, DSIR while responding to the query as to why public funds had not been asked for, stated that for setting up a university, the basic requirements were land, money for construction of building, equipments and salary for the staff and this took away about ninety per cent of the budget, but the proposed CSIR Academy already had this ninety per cent of the budget, available due to availability of CSIR's land, buildings, equipment and 4000 CSIR scientists, whose salaries were already being paid by the Government.

11. The Secretary, DSIR further explained that in the Academy, efforts were being made to bring CSIR's research and innovation along with education and there was an element of flexibility as regards funding. The funding gap, if any, will be met by the CSIR's commercial earning and, if required, the Government would be requested for additional funds. He further explained that there was no chance of a takeover by private sector as while sanctioning the Academy, Ministry of Finance and Prime Minister's Office had specifically stated that there had to be, on the Board of the Academy, a representative from the Ministry of Finance, Government of India, for financial supervision, as the Academy was going to utilize the CSIR's resources which actually belonged to the Government of India

12. As regards the issue regarding the possibility of a dilution of CSIR's mandate, the Secretary, DSIR explained that innovation can not happen unless you have the brightest mind and brightest mind would not come unless you give them a degree, a better scholarship, a better system and a better structure. He further informed that in the last ten years though our number of PhDs in science and engineering, had doubled, it is still below the progress achieved by countries who were at par with us ten years ago. Hence, there was a need for acceleration of the process by using the existing infrastructure.

13. The Chairman, UGC informed the Committee, that a few years ago, there was a realization that science education was on deceleration. The Minister of Human Resource Development set up a Committee under the Chairmanship of Prof. M.M. Sharma to revise science education and the Committee Task Force was converted into an Empowered Committee, and that Empowered Committee is now in the UGC. Presently, Rs. 600 crores have been allocated to science education and every year, Rs. 200 crores are spent for strengthening laboratories, instituting fellowships, post doctoral, and for increase in the faculties. Hence science has been brought on a higher agenda in the UGC.

14. As regards the funding, the Chairman, UGC opined that the Government should contribute for the working expenses and the future development expenditure although initial investment has been made by the CSIR. He was of the view that tuition fee should not become the only source of funding of the Academy as it would affect the students. If the fee was high then only those students who had ability to pay, would enter the academy. He, therefore, suggested that there should be a funding from the Central Government and the CSIR for the development grant as well as grant for working expenses so that a very reasonable fee is charged from the students. He also suggested that a representative of the Indian Council of Medical Science and the All India Council for Technical Education (AICTE) should be included in the Board of the Academy as an ex-officio member as, medical, biomedical, engineering education and technology will be a part of the curriculum of the Academy.

The officials then withdrew.

A verbatim record of the proceedings was kept.

15. The Committee then adjourned at 04: 18 p.m.
