

Legislative Brief

The Protection and Utilisation of Public Funded Intellectual Property Bill, 2008

The Bill was introduced in the Rajya Sabha on December 15, 2008.

The Bill has been referred to the Parliamentary Standing Committee on Science & Technology, Environment & Forests (Chairperson: Dr V. Maitreyan), which is scheduled to submit its report by the constitution of the 15th Lok Sabha.

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Highlights of the Bill

- ◆ The Protection and Utilisation of Public Funded Intellectual Property (PFIP) Bill, 2008 seeks to provide incentives for creating and commercialising intellectual property from public funded research.
- ◆ The Bill requires the scientist who creates an intellectual property to immediately inform the research institution. The institution shall disclose this information to the government within 60 days.
- ◆ The institution is required to inform the government of the countries in which it proposes to retain the title to the PFIP. The title in all other countries will vest in the government.
- ◆ The scientist shall be paid a minimum of 30 per cent of net royalties received from the PFIP.
- ◆ Failure of the scientist to intimate the institution, and of the institution to inform the government carries penalties, which include fines and recovery of the grant funds.

Key Issues and Analysis

- ◆ One of the objectives is to make the institution self sufficient by incentivising commercialisation of IP. It is arguable whether such a move could lead to institutions focussing on commercial research rather than on areas which may not have commercial value.
- ◆ The Bill penalises scientists who publicly disclose IP without a 30 day notice, and institutions that fail to protect IP if there is commercial potential. It is not clear whether these provisions create an enabling environment for commercialisation or stifle innovation.
- ◆ The Bill requires the scientist and the institution to inform the government about an IP and list the countries in which it wants to retain the title. Given that an IP is created only after a patent is granted, it is not possible to intimate the government of the intention to retain the title to the PFIP prior to that time.
- ◆ Two of the Bill's objectives are to encourage innovation in small and medium enterprises and promote collaboration between government, private enterprises and non-government organisations. However, there are no provisions to fulfil these objectives.
- ◆ The Bill aims to incentivise innovation by sharing at least 30% of the royalty with the scientist. Despite similar incentives in some leading scientific institutes, the level of commercialisation is low.

PART A: HIGHLIGHTS OF THE BILL¹

Context

India spends about 0.88 per cent of its Gross Domestic Product (GDP) on research and development, compared to over 2 per cent of GDP by most developed countries.² In India, 74 per cent of the total expenditure on R&D is met from government sources. This is much higher than the 30 per cent share of the public sector towards R&D in countries such as China and the US.³

The Science and Technology Policy, 2003 aims to (a) maximise the incentives for generation and protection of intellectual property and provide a policy environment for domestic commercialisation of such inventions to serve public interest; (b) raise the level of investment in science and technology to at least two per cent of GDP, with the help of industry.⁴

Presently, the intellectual property created in government funded research institutions is governed by the terms of the funding agreement. The 11th Five Year Plan states that an appropriate legislative framework is needed for incentivising the innovators and commercialisation of public funded R&D, where the government, the recipient, the investor and the public benefit from the protection and commercialisation of intellectual property.⁵ The National Knowledge Commission recommends that a law be enacted to create a uniform legal framework for government funded research and give universities and research institutions ownership and patent rights. This would create an enabling environment to commercialise such inventions through licensing arrangements where inventors would also be allowed to receive a share of the royalty.⁶

The Protection and Utilisation of Public Funded Intellectual Property Bill, 2008 seeks to provide incentive to create intellectual property and the mechanism for its protection and utilisation.

Key Features

- The Bill seeks to provide for the protection and utilisation of intellectual property originating from public funded research. “Intellectual property” is defined as the right to intangible property, which includes trade mark, patent, design and plant variety. “Public funded intellectual property” is defined as intellectual property, which is a result of research for which the government has provided a grant.
- The law shall not apply to any public funded intellectual property (PFIP) generated out of scholarship, fellowship and grant given by the government for educational purposes.
- All disputes shall be settled in accordance with the Arbitration and Conciliation Act, 1996.

Funding Agreement

- Any institution (including government institutions and other non-profit scientific or educational organisation) interested in receiving a grant from the government for research purposes has to enter into a funding agreement with the government. The form of the agreement shall be in the prescribed manner.

Duties of the Scientist and the Research Institution

- The scientist has to inform the institution immediately after the creation of a PFIP. He shall not publish or disclose the PFIP without prior notice of 30 days to the institution or the government.
- The institution shall disclose information about PFIP to the government within 60 days of actual knowledge of the PFIP. It shall list the countries where it intends to retain title to the PFIP. The title in all other countries shall vest with the government.
- The government may refuse the title to the institution within 90 days of receiving the intimation about retention of the title on the grounds that (a) the institution is not located in India or does not have a place of business in India or is subject to the control of a foreign government; (b) it is in the public interest to do so; (c) it is necessary for the security of the nation; and (d) the PFIP is related to atomic energy.
- The institution has to get permission from the government before it can assign its right to PFIP to any person or body. The permission has to be obtained 60 days in advance and the government has to convey its decision within 45 days.
- An institution shall not grant a person the right to use any PFIP unless he manufactures products using such intellectual property in India. The government has the right to overturn this provision after giving its reason in writing.

- The Bill specifies that every institution has to constitute an Intellectual Property Management Committee within 180 days of receiving the funds. The Committee shall (a) identify, document and protect public funded intellectual property having commercial potential; (b) perform market research and market the intellectual property; (c) create an intellectual property management fund; (d) monitor the process of licensing and assignment; (e) manage revenues from licensed intellectual properties within the organisation; and (f) create mechanisms to govern the relation between the institution and the scientist.
- The Bill bars an institution from publicly disclosing or publishing the PFIP till an application for its protection has been made in the countries it intends to retain the title. The institution shall intimate the government at least 15 days before disclosing the information so that the government has time to file application in other countries.

Sharing of royalties

- The scientist shall receive a minimum of 30 per cent of royalties from the PFIP after deducting the expenses incurred in protection and utilisation (manufacturing of a product or its commercialisation). Out of the reminder, 30 per cent shall be paid into the fund created by the committee and the institution shall retain the rest for further research and other expenses.

Duties of the government

- The government shall (a) apply for the protection and maintenance of PFIP for which it retains the title; (b) grant licences for government owned intellectual property; (c) transfer custody and administration of its intellectual property to any other entity; (d) prohibit or restrict the publication of information on any PFIP if it is prejudicial to the interest of the security of India; and (e) acquire title of any PFIP considered to be necessary in the interest of the security of India.

Penalties

- If the institution does not fulfill any of the terms of the agreement and contravenes the provisions of the Act, the government shall recover the grant amount with interest rate of 10 per cent per annum and bar such recipients from future grants.
- If the institution violates any of the provision, it may be punished with a fine of upto 50 per cent of the grant amount. If the scientist does not disclose the required information on the specified time limit he shall not be given his share of the royalty and be punishable with a fine, which may extend to 25 per cent of the grant received by the recipient.

PART B: KEY ISSUES AND ANALYSIS

The primary objectives of the Bill are: (a) to develop a framework for protecting and utilising intellectual property in order to incentivise creativity and innovation; (b) to ensure access to such innovation for all stakeholders for public good; (c) to encourage commercialisation of intellectual property created out of public funded research; and (d) to minimise dependence of universities and academic institutions on government funding by encouraging promotion of self reliance through income from intellectual property. We examine the Bill from these perspectives.

Purpose of the Bill

Revenue generation vs creation of public good

The Bill seeks to fulfil two different objectives. One objective is to protect and utilise intellectual property by incentivising creativity and innovation. The other objective is to promote self-reliance through income from intellectual property so that it minimises dependence of universities and research organisations on government funding.

Government funding is pivotal for research in basic science (such as particle physics or quantum mechanics) and public health, which might not have immediate commercial value.⁷ If both objectives of the Bill are to be met, research organisations may shift their focus from basic science to more commercially viable research so that they become more self-reliant, unless the government makes specific budgetary allocation for research in basic science. While evidence from the US is inconclusive, some research point towards marginal shift from basic sciences towards applied research.⁸

Enabling or disincentivising innovation

Clauses 9(3);
10(2) (a)

The Bill bars scientists from public disclosure of any intellectual property without a 30 day notice to the institution or the government. It also requires the Intellectual Property Management Committee of the institution to “identify, assess, document and protect public funded intellectual property having commercial potential.” Contravention of these requirements carries penalties including fines. Two issues emerge from this: first the question of what exactly scientists are permitted to publish, and second, whether they have any discretion to decide whether they want to patent a particular invention. Incidentally, the Bayh-Dole Act of the US applies only to inventions, and permits the scientists and universities to decide whether they wish to patent and license any innovation. That Act does not specify any penalties.

What can a scientist publish? The Bill defines “intellectual property” to include intangible property (which would include copyright on every original material). The requirement of 30 days notice could deter scientists from sharing even preliminary findings and working papers.

Does a scientist have the discretion to place findings in public domain? The Bill does not permit the scientist or the university to do so for any innovation “having commercial potential”.

Proponents argue that such a framework would create an enabling environment for universities and research institutions to commercialise their inventions⁹ and keep the scientists accountable.¹⁰ Opponents argue that the Bill divests the creator of any discretionary power to decide whether an innovation should be patented or left in the public domain. It would also stifle or suppress innovation.¹¹

Alternative frameworks

In India, Council of Scientific and Industrial Research (CSIR) has opened access to its research publications and wants research on selected drugs to be open to all.¹² Kerala also passed an IPR policy laying down norms for IPR in state funded research institutes: if the project is funded by private sources, the patents should be in the public domain; if the state government has funded the project, the state government should retain IPR with suitable system of rewards for the research scientist; if funded by the central government, it should be decided on a case by case basis.¹³

Some countries have adopted different ways of incentivising innovation and making it available to the public.

Table 1: Laws on public funded intellectual property in other countries

Countries	Policies regarding public funded IPR
United States	<p>Bayh Dole Act: Applies only to inventions. Universities and government funding agencies enter into a funding agreement which grants a right of ownership to the recipient subject to a number of obligations concerning disclosure of the invention, retention of title, royalty sharing and preference to small businesses and US industry. The government shall retain title if the universities do not comply with the obligations or chooses not to retain title. The inventor can apply to the government for title. The university can retain title and commercialise invention if it complies with the obligations. The government will retain some minimum rights, including a non-exclusive irrevocable licence to use the invention throughout the world: ‘march-in rights’ which allow it to make the university grant a licence to a third party where the university fails to commercialise the invention, where licensing is necessary for health and safety needs, or where preference for US industry has not been observed.</p> <p>Stevenson-Wydler Act: It establishes various administrative structures to encourage commercialisation and specifies that if the research institution claims ownership and fails to commercialise, then the employee inventor can obtain title (subject to the government obtaining a non-exclusive licence).</p>
Australia	Universities and government research organisations can claim ownership of inventions created by academic staff during their employment, both under common law and university IP policies and statutes.
United Kingdom	Patents Act, 1977: The law provides that an invention made by an employee in the course of his normal duties shall be taken to belong to his employer. This provision can, be overridden by a university IP policy and employment contracts. Universities can claim ownership over inventions by students in the course of their studies or using university resources.
Brazil	2004 Innovation Law: Public research institutes are permitted to share their laboratory facilities with private-sector enterprises. Public research institutes and private-sector enterprises are permitted to enter into capital relationships for the purpose of R&D. Public and private partners may specify the ownership of any future intellectual property rights by contract. Public research institutes and their employees must protect trade secrets associated with their research. Public research institutes may license their technologies to private enterprises. Individual public researchers may share in the economic returns associated with the successful commercialization of a new product. Public researchers may take leave from their public position in order to work for a private enterprise. Government development agencies should provide financial and human resource assistance in support of private-sector R&D.
Japan	Article 30 of The Industrial Revitalization Law: The Act aims to encourage research activities and promote the utilisation of inventions arising from research or development supported by the Japanese government. The Act covers patent eligible subject matters and other subject matters protected by other intellectual property rights. It aims to give ownership to universities and

research institutions and promote transfer of their technology to industry for commercialisation. With respect to the subject matter that universities and research institutions have acquired title, they must grant the government a royalty free licence to exploit the subject matter if the government is of the opinion that it is for public interest.

Sources: "Management of intellectual property in public funded research: Towards European Guidelines," Rapporteur Laura MacDonald and the Chairman Gilles Capart, European Communities, 2004; Analysis of the Legal Framework for Patent Ownership in Publicly Funded Research Institutions, Commonwealth of Australia, 2003; "Brazil harvests the wealth of its rain forests," Michael Ryan, "In Search of an Innovative Environment--The new Brazilian Innovation Law," Maria Beatriz Amorim Pascoa, 2004, World Intellectual Property Organization; "Technology Licensing and University Research in Japan," Toshiko Takenaka, International Journal of Intellectual Property, 2005.

Disclosure of "intellectual property"

Clauses (2), (4), (5), (9)

The Bill defines "intellectual property" as any right to intangible property, including trademark, patent, design, and plant variety as defined under the Copyright Act, 1957, the Patents Act, 1970, the Designs Act, 2000, the Semiconductor Integrated Circuits Layout Design Act, 2000 and the Protection of Plant Varieties and Farmers' Act, 2001. Under the Patents Act, 1970, an invention becomes a patent after the applicant has been granted the patent.¹⁴ Therefore, in the case of an invention, "intellectual property" is created only at the time the patent is granted.

The Bill requires the scientist to make a disclosure to the university or research organisation immediately after the creation of PFIP. The university or research organisation has to make a disclosure to the government within 60 days of "actual knowledge" of the PFIP and list the countries which it intends to retain the title. This creates a contradiction. Given that "intellectual property" is created only after a patent is granted and the university has "actual knowledge" only at that time, it is not possible to meet the requirement of informing the government of its intention to retain the title prior to that time.

Incentivising creation and innovation

Clause 11(1)(a)

According to the Bill, the scientist shall retain a minimum of 30 per cent royalty or income from commercialisation of the intellectual property. The objective of this provision is to incentivise creativity and innovation. Similar financial incentives are already in place in Indian scientific institutes such as CSIR, Indian Council of Agricultural Research and the Indian Institutes of Technology.¹⁵ However, the number of patents commercialised is low. For example, although CSIR has the highest number of patents, only 2-3% is commercially appropriated.¹⁶

The Report of the Steering Committee on Science and Technology for 11th Five Year Plan states that India needs to address important issues if it wants "a strong and vibrant innovation ecosystem". The issues are: an education system that nurtures creativity; an R&D culture which supports both basic and applied research and technology development; an industry culture which is keen to interact with academia; and a bureaucracy which is supportive.¹⁷ The National Knowledge Commission also identified skill shortage because of low emphasis on industrial innovation, problem-solving, design, experimentation in the education curricula as the most critical barrier to innovation for industries. Other barriers include lack of effective collaboration with research in universities and R&D institutions, excessive government regulation and insufficient pricing power to derive value from innovation.

Statement of Objects and Reasons

Statement of Objects and Reasons

The Statement of Objects and Reasons states that the Bill proposes to encourage innovation in small and medium enterprises and promote collaboration between government, private enterprises and non-government organisations. However, there are no provisions in the Bill to fulfil these objectives.

Intellectual Property Management Fund

Clause 10(2)(c)

The Intellectual Property Management Committee is mandated to create an intellectual property management fund. But the purpose of the fund is not clear.

Notes

1. This Brief has been written on the basis of the Protection and Utilisation of Public Funded Intellectual Property Bill, 2008, which was introduced in the Rajya Sabha on Dec 15, 2008. The Bill has been referred to the Parliamentary Standing Committee on Science & Technology, Environment & Forests (Chairperson: Dr V. Maitreyan), which is scheduled to submit its report by the constitution of the 15th Lok Sabha.
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