

***BANGABANDHU SHEIKH MUJIBUR RAHMAN
SCIENCE AND TECHNOLOGY UNIVERSITY***

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Assignment on

“Basics of Patent Law in Bangladesh”

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Name: Jamil Rayhan ID: 18CSE061 Semester: 2 nd Year: 2 nd Session: 2018-2019 Department of Computer Science & Engineering BSMRSTU, Gopalganj-8100	Umma Habiba Mou Assistant Professor Department of Law BSMRSTU, Gopalganj-8100

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Basics of Patent Law in Bangladesh



Dhakai Jamdani gets patent in global first for Bangladesh: Dhaka Tribune, Monday, Nov 23, 2020



“If people had understood how patents would be granted when most of today's ideas were invented, and had taken out patents, the industry would be at a complete standstill today. The solution to this is patent exchanges with large companies and patenting as much as we can”

-Bill Gates

Introduction:

Bangladesh has achieved considerable social gains and fairly impressive economic performance in the past decade that indicates its enormous potential but it continues to remain as a development paradox as these achievements were made despite poor governance, an adverse domestic political environment, a lack of infrastructure and repeated natural calamities. As a leading least developed country (LDC) with high potential and remarkable economic progress, Bangladesh, is facing so many crucial challenges to move towards development that push aside the Intellectual Property Rights (IPRs) from becoming a priority for any corner of the society. So, the key issues related to Intellectual Property Rights have either been addressed only partially or left unaddressed. Signing to the international treaties including the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has obliged Bangladesh to rethink about its Intellectual property laws, particularly the patent law. Reformulation process of the patent law is passing through paradoxical situation because of divergence between fulfillment of the international obligations and reluctance or unawareness of inventors' society, business community and policy makers about the importance of IPRs as well as inadequacy of specialized and skilled

professionals. IPR remains a hard to understand subject to almost every corner of the society. The limited number of patent applications by the residents (WIPO 2013), patent authority with very limited qualified staffs, few countable academic publications on patent law, very few numbers of specialized IPR attorneys and few numbers of IP litigation, weak demand side of IP learning and unavailability of IP knowledge providers are the indicators of this unawareness and reluctance about IPR. This may not be an identical fact for Bangladesh only but also similar or even more deter for other LDCs. The patent data and availability of academic literature can be used as proxy indicator for understanding the IPR regime of LDCs. The availability of literature on IPRs of advanced economies is huge and for developing countries it has been increased over last two decades, but, literature on IPRs of LDCs is comparatively still very limited. However, considering the international obligation to be TRIPS compliant the exercise on the policy options of the patent law of Bangladesh and derivation of their economic implications are deemed necessary not for only Bangladesh but for the other LDCs of similar condition.

Objective:

1. To know the historical development of Patent law in Bangladesh
2. To know about the patent law of Bangladesh
3. Analysis of patent law of Bangladesh

Patents:

A patent is a legal certificate that gives an inventor exclusive right to prevent others from producing, using, selling, or importing an invention for a fixed period (usually 20 years). Legal action can be taken against those who infringe the patent by copying the invention or selling it without permission from the patent owner. Patents can be bought, sold, hired, or licensed. A patent application must satisfy the patent examiners that the invention is:

- **useful** (i.e., have industrial application): Ideas, theories, and scientific formulas are not sufficiently useful or industrially applicable to be patentable;
- **novel**: The invention should be recent and original, but perhaps most importantly it should not already be known (in the public domain). In most countries (except the USA) the patent is awarded to the first person to apply, regardless of whether this person was the first to invent;
- **non-obvious or must involve an inventive step**: not obvious to a person skilled in the technology and more inventive than mere discovery of what already exists in nature (such as a gene with no known function). The invention must be disclosed to the patent examiners in a detailed way that would enable a skilled technician to make and use it. In the case of an invented process, the patent can cover a non-obvious way of making something already known (i.e., previously invented or discovered). In the case of an invented product, the non-obvious/inventive step requirement does not require it to be made by a novel method.

In order to clarify the legal scope of the patent, the inventor provides a list of claims, which the examiner will accept, modify or reject as invalid. These claims may cover any of the following:

- **A product**: Such a claim will cover any use of the product including those as yet undiscovered. For example, a new drug patented as a cure for cancer may later be found to cure heart disease; the patent will cover this new use.
- **A use**: Such a claim will cover a specific use only. Thus, it would cover the above drug only as a cure for cancer and not for any uses that are found later. In some countries new uses of existing inventions are patentable. If the patent on the existing invention is still valid, the owner of the newer patent

will have to acquire a license from the owner of the earlier patent in order to exploit his or her invention.

- **A process:** Such a claim will protect the process when used with any product, but would not protect a product that could be manufactured by that process but was not.
- **A product-by-a-process:** Such a claim would cover only those products made by the process described in the application. Therefore, it would cover the drug, but only when made by a specified process.

It should be noted that a patent may include claims of two or more of these categories. But whether the patent covers a product, a process, a use or all of these, the invention normally must have a physical embodiment or its application must be capable of leading to one. Not all inventions that meet the above conditions can be protected by patent. In many countries, computer programs and business methods cannot be patented at all. And in some countries certain inventions may be unpatentable because they are deemed to be immoral or contrary to the public interest. In part the differences in national patent laws are due to the fact that each country prefers to define what inventions may be patented in accordance with its perceived national interest. But there is a trend towards standardization of national patents laws, and many common exceptions to patentability are likely to disappear in the next few years. It can easily take over 2 years to obtain a patent from the day that an application is filed at the national patent office (the priority date), and it sometimes takes much longer. The patent office carries out a search to ensure that the invention really is new and non-obvious. When it is satisfied that this is so, the application is published - in those countries where publication is done before issuing the patent - and an in-depth examination follows. In the case of an invention derived from a natural product, the examination might include

the obligation to deposit specimen. There is no such thing as a world patent so it is usually necessary to file a different application in each country. However, a number of international agreements (such as the Patent Cooperation Treaty) simplify this process by requiring a single application to be prepared. In the case of the PCT, this application is then submitted to a receiving office from where it is distributed to national patent offices designated by the applicant. In Europe, an institution known as the European Patent Office carries out the examination on behalf of countries that are signatories to the European Patent Convention.

Many countries also allow for another kind of patent called a utility model or petty patent. These differ from conventional patents in several ways:

- the inventive step requirement is far less stringent and may even be discarded;
- the period of protection is shorter;
- the patent examination is either deferred or replaced by a registration system.

Utility models vary more than other IPR types because there are no international agreements or conventions to standardize them.

Different Types of Patents

Patents can be categorized into three types: utility, design, and plant.

- **Utility**

A utility patent is what most people think of when they hear the word “patent.” It is also the most common type of patent that inventors apply for. A utility patent protects the creation of new or improved products, processes, compositions of matter, or machines that are useful. In addition, once a patent is granted, the patent

owner will have the right to exclude anyone from making, using, or selling this invention for 20 years, starting from the date the patent application was filed.

- **Design**

A design patent only protects the ornamental characteristics and the appearance of a product, but not the structural and functional features. Since design patents and utility patents provide completely different areas of intellectual property protection, you can apply for both utility and design patents for the same product.

- **Plant**

A plant patent protects new kinds of plants that have been reproduced asexually. This means that the plant has been reproduced by seeds or by cuttings, and it cannot be a tuber-propagated plant or a plant that is still in an uncultivated state.

Patentability Requirements

Once an invention has been patented, the patent owner has the right to regulate any monetization activities involving the patent.

However, before a patent application is filed, it is important to make sure that the invention is, in fact, new and unique. Otherwise, the patent application will be rejected. Therefore, in order for any invention to receive a patent, it must meet the following requirements: novelty, non-obviousness, and usefulness.

- **Novelty**

Under 35 U.S.C. § 102, an invention needs to be new, and it must not have been disclosed to the public, including friends and family or journals, magazines, websites, etc., in order for it to be patentable. It should be noted that the United States is a “relative novelty” country, which means that the USPTO offers a one-

year grace period for public disclosure of the invention, measured from the earliest patent application filing date. However, this is not the case for “absolute novelty” countries, including Japan and several European countries.

- **Non-Obviousness**

According to 35 U.S.C. § 103, it must be determined if the invention is obvious to someone with basic knowledge in the field. The patent examiner will examine all the previous relevant patents (prior art) to ensure that no other similar patents exist. To investigate further, the patent examiner may even try to determine if there any obvious similarities by combining two or more prior art references.

- **Usefulness**

For an invention to be useful, it needs to have a functional purpose. So, an applicant will have to prove how the invention can provide an actual use; the invention cannot be something that can only offer a speculative use. A functional purpose does not have to be something as big as a world-saving solution; as long as the invention benefits society by making some type of improvement, the invention can be considered useful.

Literature Review:

By using standard search options a few books, articles and reports are found about patent law of Bangladesh. The literature on IPRs of Bangladesh is not even so large. All most all the available relevant literatures on patent law and TRIPS based on the national context of Bangladesh were reviewed. The academic and official exercises on rethinking about the IP regime, inherited from colonial era, are observed after signing of TRIPS agreement. The process of knowledge accumulation may be initiated earlier but the literatures on patent law of Bangladesh are available only since beginning of this century.

In 2003, a report of law commission (Afzal & Sa deque 2003) proposed to substitute the prevailing Patent and Design Act, 1911 by enactment of a new law instead of suggesting amendments to that Act. This report also contains a draft of the proposed new law which is seemed to be influenced by both EU and US legislations. For example, it mentioned 'inventive step' as a patentability requirement but it include manufacturing process as a subject matter of patent. In the same year, a leading think- tank published an occasional paper that discusses linkage between international IP regime and importance of patent protection for local pharmaceutical industry of Bangladesh, policy options for Bangladesh IP laws for optimizing gain from the mentioned industry to be TRIPS responsive and suggests pre-2016 and post-2016 strategies as the transition period was scheduled to be ended by 2015 (VanDusen T 2003). This paper also recommended higher patent protection, such as, limiting breadth of patent claims, high thresholds of novelty and inventive step, high level of patent disclosure, strong compulsory licensing.

A book, 'TRIPS Agreement of the WTO: Implications and Challenges for Bangladesh' covers various aspects of implication of the TRIPS in Bangladesh including agriculture, public health, economic development and the way forward (Islam 2013) Earlier, an article named 'an overview of Protecting Intellectual Property rights in Bangladesh' cover a brief description on the related issues (Nazanin 2011). Bangladesh has been included in a regional comparative analysis, of patent intensity, with India, Pakistan and Sri Lanka (Jana T at El 2014).

Development of Patent law in Bangladesh

The earliest legislation found to protect IP in Bangladesh was the Patents, Designs, and Trademarks Act of 1883. However, it was repealed, and the

new Patents and Designs Act of 1911 and the Trademarks Act of 1940 were enacted respectively. Then, in 2003, both these Acts were amended, and the Departments of Patents, Designs, and Trademarks (DPDT) was created by merging two independently operational offices – the Patent Office and the Trademark Registry Office. The Trademarks Act 2009 was enacted after the Trademarks Ordinance was promulgated in 2008. The copyright system in Bangladesh has resulted from the British Copyright System and the Copyright Ordinance that was promulgated by the amalgamation of different Copyright Laws in 1962. After the administration of this Ordinance up to 1999, the Copyright Act was enacted in 2000 and amended in 2005.

The Patents and Designs Act, 1911, is the law in force in Bangladesh on patents and designs which was enacted in 1911, during the British colonial age, along with other provinces of Indian sub-continent, mainly on the basis of the principles laid down in the British Statute of Monopolies, Patents, Design and Trade Marks Act, 1883 and Patents and Designs Act, 1907. The laws relating to patents and designs have, therefore, been consolidated in a single enactment in Bangladesh, namely, the Patents and Designs Act, 1911. The Act is divided into three parts. In part I laws relating to patents, in part II laws relating to designs and in part III general provisions⁷ have been included. In some countries, two separate acts prevail for patents and designs respectively. In India, a separate Patents Act was enacted in 1970 and the provisions relating to designs continue to be governed by the provisions of the Patents and Designs Act, 1911, and for the purpose suitable amendments by way of omission, addition, substitution etc. were made in the Patents and Designs Act, 1911, by the Patents Act, 1970 (Act 39 of 1970).

The law commission report in 2003 opined that it would be convenient to keep the provisions relating to both patents and designs in one enactment as in the present

Act. If the provisions relating to patents and the provisions relating to designs were made in a single enactment, the administering authority who would enforce the provisions relating to both patents and designs, would feel convenient if the authority found the provisions relating to both the matters in a single Act rather than in separate Acts (Afzal and Sadeque 2003).

Since enactment of the Patents and Designs Act, 1911, the concepts of patents and designs have undergone enormous development through decisions of courts around the world. In addition, a large number of international conventions have been adopted recommending enactment of uniform laws on intellectual property including patents and designs. The attempt for up gradation of law has started on 2003 but it is yet to be finalized. Bangladesh continues with (essentially)the inherited British law. A few minor amendments have been enacted such as the establishment of Department of Patent Design and Trademarks (Azam and Richardson 2010).

Features of current patent law in Bangladesh:

According to the current patent law, a patent application is required to be accompanied with either a complete or provisional specification. If an applicant applies with a provisional specification, a complete specification is required to be submitted within nine months. If not, after a period of ten months the application is deemed to have been abandoned. A complete specification is required to include following particulars, such as: The name and address of the inventor, the title of the invention, an abstract or summary of the invention, a description of the invention, the process of invention with drawings and a claim or claims defining the scope of the invention for which protection is sought.

The application is then sent to an examiner for examination. The examination will trigger one of three outcomes:

- (1) the specification is correct and the invention is patent-worthy, or
- (2) the specification is not reflected any new invention and is rejected, or
- (3) the specification is accepted with modification or amendment.

If the examiner raises no objections, the specifications published in the Gazette. Interested parties may raise objections within four months.

Importantly, in 2008 the Department of Patents, Designs and Trademarks suspended the patenting of pharmaceuticals in Bangladesh until 1 January 2016 in accordance with the Doha Declaration. The Department's notification provides that applications relating to patents for medicines and agricultural chemicals will be preserved in a 'mail box' and will be considered⁸ after January 2016 (Azam and Richardson 2010). But this notification is yet to be incorporated in the text of law.

Bangladesh under TRIPS obligation:

Consistency of Bangladesh Patent law with TRIPS As a signatory to the TRIPS, Bangladesh is now in transition period for meeting the compliance deadline. However, it is pre-loaded with certain IPRs laws. Almost all of them are taken to serve the trade liberalizing agenda and for protecting IPRs owners' interests, since they provide for similar treatment to IPRs owners irrespective of their country of origin. The IPRs laws in Bangladesh also contain broad terms for the extension of IPRs protection to any improvement or modification (Islam 2013). Bangladesh is under going through a process of amending of old IPRs laws as well as enactment of new IPRs laws. However, in this process of changing and

enactment of such laws, the classical argument of principle of public interest, the application of the principle of balance of rights and obligations was adopted with the lock of the consistency test. As worded in TRIPS Article 8.2, any measure taken under the umbrella of this article must be “consistent with” the provisions of the TRIPS Agreement (Azam 2014). Some of the important legislative options for patent law of Bangladesh, such as, subject matters eligibility, disclosure requirement, duration of patent protection, provision for parallel import, provision for compulsory licensing, pre-grant and post-grant oppositions, are examined in the following discussion:

Patentability:

Subject matter eligibility Article 27(1) of the TRIPS requires that patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. The agreement however allows a certain freedom of interpretation to members in respect of what constitutes an “invention”, and how the requirements of novelty, inventive step and industrial applicability are determined (Thorpe, 2002). According to the existing Patent law of Bangladesh, any invention is patentable and the invention is defined as ‘any manner of new manufacture that includes an improvement and an alleged invention. About subject matter eligibility, the TRIPS provision is not entirely clear and provision of existing patent law of Bangladesh has no direct conflict with TRIPS but it is very ambiguous and difficult to understand its meaning. BD P&D Act, 2011, allows patent of both product and process, in legal text it is written ‘patented article or process’ but does not lay down any specific criteria of patentability of an invention nor even define the ‘process’. Though it is not a compliance issue with TRIPS but

still it is very important to define the process and its concept with business method. Specially, as the patentability of business methods is a debatable issue among the dominant jurisdictions of the present time (eBay Inc. business methods L.L.C. 2006 Ct. 1837, 2006) and (Kennedy, J., and Alice Corp. v. CLS Bank International 2014) The debate of patentability of business methods also include the question of patentability of software but there is no mention of patentability of the software in the existing⁹ patent law of Bangladesh whereas it is very important issue for the sharply growing Information and communication sector of the country.

Disclosure requirement

TRIPS Article 29 specifies the requirements that may be imposed on patent applicants. These include the requirement to 'disclose the best mode' for carrying out the invention as well as providing information concerning corresponding applications and grants. The patent law of Bangladesh, does not uses the term 'disclosure requirement' but strong procedural steps are described to provide the 'specification of the invention'.

Duration of patent protection

The existing patent law of Bangladesh, allows patent protection for 16 (sixteen) years from date of filing, whereas, TRIPS Article 33 specifies the requirement of the term of protection as not less than twenty years counted from the date of filing. So, to be TRIPS compliant, Bangladesh should extend its legal provision of minimum term of protection to 20 years from 16 years. It is mentionable that, in Bangladesh, though the term of protection is limited to 16 years, but still there is a provision for application of the extension of the term of protection least six months before the time limited for the expiration of the patent. The petition for extension

of term of protection can be disposed of by the patent authority or even can be sent to High Court Division decision.

Patent in Bangladesh

Under the act, the Department of Patents, Design and Trademark (DPDT) provides patent protection (registration) to the patent holders for 16 years on payment of prescribed fees. Duration of protection may be renewed for a further period. A patent confers on the patentee the exclusive privilege of making, selling and using the invention throughout Bangladesh and of authorizing others to do so. Under this act, the Department of Patents, Design and Trademark (DPDT) provides patent protection (registration) to the patent holders for 16 years on payment of prescribed fees. Duration of protection may be renewed for a further period. A patent confers on the patentee the exclusive privilege of making, selling and using the invention throughout Bangladesh and of authorizing others to do so.

SPECIFICATIONS

An application must contain a complete specification or provisional specification. A provisional specification must describe the nature of the invention. A complete specification must particularly describe and ascertain the nature of the invention and the manner in which the same¹⁰ is to be performed. A specification, whether provisional or complete, must commence with the title, and in the case of a complete specification must end with a distinct statement, of the invention claimed. If the applicant does not leave a complete specification with his applications/he may leave it at any subsequent time within nine months from the date of the application The Registrar may require that suitable drawings/model or

sample of anything illustrating the invention shall be supplied and such drawings/model or sample shall be part of the complete specification.

FILING REQUIREMENT

To file a Patent Application following information are required:

- (a) Name of the inventor (applicant),
- (b) Address(s) and nationality of the inventors,
- (c) Two sets of specification and one set of drawing on tracing paper (transparent),
- (d) One set Legalized Deed of Assignment (if any),
- (e) Power of Attorney [Form – 31],
- (f) Certified copy of the foreign patent (in case of claiming priority)

ADVERTISEMENT ON ACCEPTANCE OF APPLICATION

On the acceptance of an application the Registrar shall give notice thereof to the applicant and shall advertise the acceptance and with the drawings (if any) shall be open to public inspection.

OPPOSITION

Any person at any time within four months from the date of the advertisement of the acceptance of an application give notice at the DPDT of opposition to the grant of the patent. The opponent must state the grounds of his opposition.

GRANT AND SEALING OF PATENT

If there is no opposition a patent shall be granted, subject to such conditions as the authority thinks expedient, to the applicant, or in the case of a joint application to the applicants jointly, and the Controller shall cause the Patent to be sealed with the seal of the Patent Office.

TERM OF PATENT

The term limited in every patent for the duration thereof is sixteen years from its date and renewal is required after four years up to 15 years. In case of priority, the commencement of four years shall start from the date of priority application.

REMEDY FOR INFRINGEMENT

A patentee may institute a suit in a District Court having jurisdiction to try the suit against any person who makes, sells or uses the invention without his license, or counterfeits it, or imitates any person successful plaintiff is entitled to the relief in the form of injunction, damages or an account of profit.

Patent Registration in Bangladesh:

An application for a patent may be made by any Bangladeshi or any foreigner, and by alone or jointly with any other person. The application must be made to the Department of Patents, Designs and Trade Marks (DPDT) in the prescribed form. The application must contain a declaration that the applicant is in possession of an invention, whereof he, or in the case of a joint application one at least of the applicants, claims to be the true and first inventor or the legal

representative or assign of such inventor and for which he desires to obtain a patent, and must be accompanied by complete specification.

Who can apply for patent registration in Bangladesh?

Patent rights are granted in Bangladesh as per the Patent & Design Act, 1911 and Patents & Designs Rules 1933. In accordance with Section 3 of Patent & Design Act, 1911, an application can be made by any of the following persons either alone or jointly with any other person, whether he/she is a citizen of Bangladesh or not:

- (1) True and inventor of an invention;
- (2) Assignee of a person claiming to be the true and inventor;
- (3) Legal representative of any deceased person who immediately before his/her death was entitled to make such an application.

Patent law in Bangladesh: An overview.

In Bangladesh, Patent and Design Rights are guided under the Patents and Designs Act of 1911, Bangladesh Patent act, 2012 and the Patent and Design Rules of 1933. Under these laws, 1911, Bangladesh provides patent protection for 16 years. An invention to be patentable in Bangladesh should:

- Have a practical existence
- Be novel, useful, and non-obvious
- Not be contrary to morality or law

Moreover, for registration of Industrial Design under the Patents and Designs Act 1911, the Industrial Design must:

- Contain the three-dimensional structure
- Not be connected to purely functional designs

- Not possess the visual appearance
- Neither be contrary to public order and ethics nor exploit official symbols or emblems.

Industrial Design registration in Bangladesh lasts for five years from the date of registering and can be renewed in twice i.e., fifth year and tenth year.

Bangladesh Patent Act, 2012:

The obligation of States towards TRIPS (Trade-Related Aspects of Intellectual Property Rights) has been reflected in Article 1 of the TRIPS which states that “members shall give effect to the provisions of this agreement”. As TRIPS will be enforced from 1st July of 2013 in Bangladesh mainly regarding agricultural chemical product, the newly drafted legislation called “Bangladesh Patent Act, 2012” tried to comply with TRIPS standard in almost all aspects except a few points. Furthermore, the Act states that after entering into force of this Act of 2012, all the provisions relating to patent in the earlier both Patent and Design Act, 1911 and its Amendment Act of 2003 shall be repealed. Although the Act is yet to enforce but it is high time to look at the Act whether it maintains TRIPS standard and whether it will be capable of resolving all existing lacuna

Now coming to the contents of the Act, section 2 of the Act defined patent as “a granted monopoly right to protect any invention by which the patentee has been permitted to prevent another person to use his invention within Bangladesh”. This definition is more comprehensive in comparing with the definition given in earlier Act of 1911. Regarding preconditions of patentability, TRIPS provided in article 27(1) that it must be new, involving inventive steps and having industrial application whereas in the Act of 2012, the only point which differs from

TRIPS is instead of inventive step, it states the condition of 'originality' under section 4. The relevant provision of TRIPS is more comprehensive comparing with the Act of 2012. The reason is that TRIPS mentioned 'invention shall be in all field of technology either product or process'. This portion is not articulated in the Patent Act of 2012, inclusion of which would make the provision more specific and comprehensive. Regarding subject matter of patentability, the new Act is more comprehensive and contentious comparing with the Act of 1911 mostly because categorized what can't be patentable in section 3 of the Act. Discovery, scientific theory, mathematical method, business method, computer programmers, mental act, diagnostic, therapeutic or surgical process in human or animal body are not the product used for that purpose, natural objects, discovery of new use for a known substance, plants or animals and essentially biological processes all are not patentable. Furthermore, on the ground of order publican morality, granting of patent shall be refused. Under section 15 of the Act, 2012 in case of illegally accessed genetic resources, patent shall be refused if the question of order public or morality comes. But micro-organism, non-biological process, micro-biological process, process applied for segregating any natural thing from its inherent environment are patentable under the Act of 2012. Patenting of agricultural chemical product and pharmaceutical product shall temporarily be excluded from patentability till 1st July of 2013 and 1st January of 2016consecutively under section 3(2) of the Act. Regarding patenting of biotechnology, scholars apprehend that it will create monopolization and binds poor farmers and communities to leave their advantageous means of livelihoods or causes concerns in food security. As TRIPS will be enforced in Bangladesh on and from 1st July of 2013, food-stuffs, seeds, agricultural chemicals, herbicides or other agro-products made of patented bio-technology are likely to assume higher price and make them exorbitant for the poor Bangladeshis.

The provision regarding grounds for rejection of patents based on public order and morality under the Act lacks specificity comparing with TRIPS provision. Although article 27 (2) of the TRIPS has been inserted in section 3(2) of the Act, but it has missed a few points of article 27(2). The portion mentioned as “protection of human, animal or plant life or health or to avoid serious prejudice to the environment” in article 27 (2) a flexibility for member-state to prevent commercial exploitation on the ground of order public and morality, has not been articulated in section 3 of the Bangladesh Patent Act. Secondly, article 27 (3) (b) of the TRIPS provided that “member shall provide for the protection of plant varieties either by patents or by an effective subgeneric system or by any combination thereof.” Although sui generis protection is suggested by scholars to be advantageous for Bangladesh, this part of TRIPS provision is absent in the Patent Act of 2012. Talking about our neighboring country India, it has made law titled “The Protection of Plant Varieties and Farmers' Rights Act, 2001”. But we don't have any legislation in this regard. In absence of any legislation securing farmers' rights, the plant breeders Rights enriched in International Convention for the Protection of New Varieties of Plants (UPOV) Convention is likely to cause the heavy burden of payments to the agriculture-prone Bangladesh resulting in change of livelihood of farmers and affecting the foodstuffs produced from the protected seeds.

The duration under article 33 of TRIPS is 20 years whereas under section 14 of Patent and Design Act 1911, it was 16 years. But in the new Act of 2012, the duration was compiled with TRIPS in section 13 of the Act. Regarding compulsory license, section 14 of Bangladesh Patent Act of 2012 has not properly complied with TRIPS. The provision of TRIPS in this regard is article 8 which provides, “members may take necessary measures.....to promote the public interest in

sectors of vital importance to their socio-economic and technological development, “whereas section 14 of Bangladesh Patent Act 2012 has not included “socio and technological development” and it has only inserted economic development as a ground.

An Overview of the Patents and Designs Act of 1911:

PATENTS

Application for and Grant of Patent

3. Application
4. Specifications
 - 4A. Time for leaving complete specification
 - 4B. Provisional protection
5. Proceedings upon application
6. Advertisement on acceptance of application
7. Effect of acceptance of application
8. [Repealed]
9. Opposition to grant of patent
10. Grant and sealing of patent
11. Date of patent
12. Effect, extent and form of patent
13. Fraudulent applications for patents
 - 13A. Single patent for cognate inventions

Term of Patent

14. Term of patent
15. Extension of term of patent

15A. Patents of addition

16. Restoration of lapsed patent

Amendment of Application or Specification

17. Amendment of application or specification by Registrar

18. Amendment of specification by the Court

19. Restriction on recovery of damage

Register of Patents

20. Register of Patents

Government

21. Patent to bind Government

21A. Assignment of patent to the Government

Compulsory Licenses and Revocation

22. Compulsory licenses and revocation

23. Revocation of patents worked outside Bangladesh

23A. Operation of order under section 22 or section 23

24. Power of Registrar to revoke surrendered patent

25. Revocation of patent on public grounds

Legal Proceedings

26. Petition for revocation of patent

27. Notice of proceedings to persons interested

28. Framing issue for trial before other Courts

29. Suits for infringement of patents

30. Exemption of innocent infringer from liability for damages

31. Order for inspection, etc., in suit

32. Certificate of validity questioned and costs thereon

33. Transmission of decrees and orders to the Registrar

34. [Omitted]35. Hearing with assessor

35A. Grant of relief in respect of particular claims

36. Remedy in case of groundless threats of legal proceedings

Miscellaneous

37. Grant of patents to two or more persons

38. Public use or knowledge of invention

38A. Disconformity

39. Loss or destruction of patent

40. Provisions as to exhibitions and readings before learned societies

41. Models to be furnished to the National Museum of Bangladesh

42. Foreign vessels in Bangladesh waters

Recommendations

- In light of above discussions, the following recommendations are proposed:
Bangladesh should amend the laws on Patent to develop a harmonious system of Patent rights protection.
- The organizational capacity and efficiency of the concerned administrative branch should be upgraded qualitatively and quantitatively so that they can act properly.
- Mechanisms must be developed to ensure speedy and cost-effective resolution of disputes and litigations on Patent.
- Patent law should provide the basis for the protection of software.
- Rules annexed to every particular Acts on IP should be amended periodically to reflect the changes that have been taken place since enactment of any Act.
- For the sake of fair justice and scientific resolution, it is important that Bangladesh should immediately start Intellectual Property and Commercial Law Courts, at least, initially in Dhaka, Chittagong, Rajshahi

and Khulna covering the whole of Bangladesh, particularly in consideration of increased number of Intellectual Property.

- It is necessary to increase the amount of manpower for smooth functioning of different IP related offices.
- Bangladesh possesses a prosperous wealth of intellectual property emanating from indigenous or traditional knowledge. It would be wise for the government to recognize their knowledge, practices, innovation and rights and bring them under the protection of Intellectual Property Law regime.

Conclusion:

The development and protection of patent rights largely depends on the effective law enforcement mechanism. Strong enforcement mechanism for the protection of intellectual property rights fosters an environment in which creative and innovative industries can thrive and contribute to economic development. (Mansfield, et al., 1994) Though the government has updated laws on the point but it is evident from the above discussion that the present legal framework as well as administrative set up is inadequate to provide expected protection patent for entrepreneurs who seek to protect their invention, trademark and other intangible business property. In any initiative for better protection and promotion of the rights of IP holders the significance of enhancing public awareness and skills of concerned officials of the authorized departments can hardly be exaggerated. An equitable, modernized and protected Patent regime provides recognition and material benefits to the inventor, constitutes incentives to the inventors and innovative activities. In order to maximize exploitation of Patent rights there is no alternative to amending legislation in this area. But the most important subject is the awareness of people in general that can only stop rampant

violation of patent rights. Thereby, the government should not only formulate and reform the law on this context rather, should take all indispensable steps to encourage people's consciousness.

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