THE TRIPS AGREEMENT IN BANGLADESH: IMPLICATIONS AND CHALLENGES

Mohammad Towhidul Islam*

1. Introduction

The *Agreement on Trade Related Aspects of Intellectual Property Rights*, 1994 (the *TRIPs Agreement*)[1] of the World Trade Organization (WTO) has long been the subject of a major contentious trade issue between its current and potential developed, and developing and least developed country (LDC) members. The Agreement with its intellectual property rights (IPRs)[2]-trade linkage and strict protection standard-setting creates competing interests for developing and least developed countries. Alhough adopted in the realm of trade liberalisation, the IPRs-trade tie appears to monopolise free trade and secure rent payments for IPRs-owning developed countries when the Agreement's strict protection is accorded to IPRs and duration of such protection is extended.[3] The Agreement

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* Assistant Professor, Department of Law, University of Dhaka

1 *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, *1869 U.N.T.S. 299*; *33 I.L.M. 1197* [hereinafter the *TRIPs Agreement*].

2 It was customary to refer to industrial and intellectual property rights. The term 'industrial' was used to cover technology-based subject areas like patents, designs and trade marks. 'Intellectual property' was used to refer to copyright. The modern convention is to use 'intellectual property' to refer to both industrial and intellectual property. The *TRIPs Agreement* translates IPRs into trade-related intellectual property rights to commercialise the inventions and simultaneously to stop others from doing so unless rents are paid on licensing; see for details, M Rafiqul Islam, *International Trade Law of the WTO* (Melbourne: Oxford University Press, 2006) 379-80.

3 Jagdish Bhagwati, 'From Seattle to Hong Kong' (December 2005: WTO Special Edition) 84(7) *Foreign Affairs* 2-12. In spite of his great active role in liberalising trade under the World Trade Organization (WTO), he is of the view that the *TRIPs Agreement* legitimates rent seeking behaviour and perpetuates monopoly, and these aspects are inconsistent with the principle of free trade.

causes further tension when it introduces a uniform and mandatory protection regime for all WTO members, developed, developing and least developed countries alike. The uniformity in normative protection seems to undervalue countries that have different standing in terms of economic development. It also disregards developing and least developed countries' comparative advantage of reverse engineering in IPRs products when it restricts technology transfer. Such TRIPs approaches appear to prioritise the highest revenue collecting interests of developed countries over least developmental interests of developing and least developed countries. Researchers and international organisations – governmental and non-governmental demonstrate these TRIPs experiences in their writings and reports.[4] These experiences come into view as implications and

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[4] United Nations Conference on Trade and Development, 'The Least Developed Countries Report 2007: Knowledge, Technological Learning and Innovation for Development' (prepared by the UNCTAD Secretariat, Geneva, 2007) 125-6 [hereinafter UNCTAD]; United Nations Development Programme, 'New technologies and global race for knowledge' in *Human Development Report* (1999) 68 [hereinafter UNDP]; Ruth L Okediji, 'The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property System' (2003) 7 *Singapore Journal of International and Comparative Law* 315; UNCTAD, *The Role of the Patent system in Developing Countries* (1975); see also Michael Blakeney, 'Intellectual Property in World Trade' (1995) 1(3) *International Trade Law and Regulation* 76, 77-8; see also Jerome H Reichman, 'The TRIPs Component of the GATT's Uruguay Round: Competitive Prospects for Intellectual Property Owners in an Integrated World Market' (1993) 4 *Fordham Intellectual Property, Media and Entertainment Law Journal* 171; Peter Drahos, 'Developing Countries and International Intellectual Property Standard-setting' (2005) 5(5) *Journal of World Intellectual Property* 765; Vandana Shiva, *Protect or Plunder? Understanding Intellectual Property Rights* (London: Zed Books, 2001) 49-53; Jerome H Reichman, 'The TRIPs Agreement Comes of Age: Conflict or Cooperation with the Developing Countries' (2000) 32 *Case Western Reserve Journal of International Law* 441; Laurence R Helfer, 'Regime Shifting: The *TRIPs Agreement* and New Dynamics of International Intellectual Property Lawmaking' (2004) 29(1) *Yale Journal of International Law* 1; World Health Organization, 'Public Health: Innovation and Intellectual Property Rights' (Report of the Commission on Intellectual Property Rights, Innovation and Public Health, 2006) [hereinafter WHO]; The Commission on Intellectual Property Rights, 'Integrating Intellectual Property Rights and Development Policy' (Report of the Commission on

challenges for developing and LDC members in general in their IPRs-appropriating nature of developmental needs in agriculture, access to medicines, transfer of technology, economic development, and so on.[5] Bangladesh which is an LDC and has one-thirds of its population living below the poverty line, faces such TRIPs implications and challenges since it depends mostly on agriculture for livelihoods, generics of drugs for health, foreign patented products for reverse engineering, and technology transfer for economic development.

This article seeks to address the TRIPs implications and challenges in general and Bangladesh in particular. While doing so, it will dig out some fields of TRIPs implications, which have tremendous bearing on Bangladesh and its people. It will conclude with some recommendations how these implications and challenges can be tackled without substantially hampering the interests of TRIPs stakeholders and users like Bangladesh.

2. Problem Statement of the Article

The *TRIPs Agreement* obliges its members to offer plant varieties protection (PVP) either through 'an effective *sui generis* system' or patents or a combination of both.[6] However, the Agreement keeps unspoken on the definition of 'an effective *sui generis* system.' Some bilateral treaties[7]

Intellectual Property Rights, London, September 2002) 35 [hereinafter UK Commission].

5 UNCTAD, Ibid, 125-6.

6 *TRIPs Agreement* Article 27.3(b).

7 e.g. *United States-Bangladesh Bilateral Investment Treaty 1986* signed 12 March 1986; entered into force 25 July 1989, Treaty Doc.99-23 Congress. Article 1c) provides: 'Investment' means every kind of investment owned or controlled directly or indirectly, including equity, debt; and service and investment contracts; and includes... [i]ntellectual property, including rights with respect copyrights and related patents, marks and trade names, industrial designs, trade secrets and know-how and goodwill.' See also, European *Union-Bangladesh Cooperation Agreement on Partnership and Development 1999*, signed 22 May 2000, LEX-FAOC036142 <http://faolex.fao.org/docs/pdf/bi-36142.pdf> 2 April 2008. Article 4.5.(c) states: '... Bangladesh shall endeavour to accede to the relevant international conventions on intellectual, industrial and commercial property referred to in Paragraph 2 of Annex II.'

binds a number of developing and least developed countries to offer the PVP in the form of plant breeders' rights (PBRs)[8] as laid down in the *International Convention for the Protection of New Varieties of Plants 1961 (UPOV Convention).*[9] The Convention requires members to protect PBRs against unauthorised production of these varieties for commercial use[10] although it has been a long established custom, popularly known as 'farmer's privilege'.[11] Not only that, it also extends PBRs to 'essential derivation' of a plant variety from a protected variety. This enables the right holder of the protected variety to have the benefit of both types of plant.[12]

With the use of TRIPs Article 27.1 as regards patenting of bio-technology and Article 27.3(b) as regards patenting of a bio-technological process to produce a plant,[13] multinational corporations (MNCs) generate

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8 UPOV, *Welcome* <http://www.upov.int/index_en.html> at 22 March 2008; See also, Anitha Ramanna, 'IPRs and Agriculture: South Asian Concerns' (2003) 4(1) *South Asia Economic Journal* 55, 63.

9 The *International Convention for the Protection of New Varieties of Plants* was adopted on 2 December 1961, by a Diplomatic Conference held in Paris [hereinafter the *UPOV Convention*]. The *UPOV Convention* came into force on 10 August 1968. The Convention establishes the International Union for the Protection of New Varieties of Plants (UPOV). It has been revised on 10 November 1972, 23 October 1978, and on 19 March 1991, in order to reflect technological developments in plant breeding and experience acquired with the application of the *UPOV Convention.* See for details, <http://www.upov.int> 22 March 2008.

10 Ibid, Article 5.

11 Michael I Jeffery, 'Intellectual Property Rights and Biodiversity Conservation: Reconciling the Incompatibilities of the *TRIPs Agreement* and the Convention of Biological Diversity' in Burton Wong (ed) *Intellectual Property and Biological Resources* (Singapore: Marshall Cavendish Academic, 2004) 197.

12 *UPOV Convention* Articles 14, 15, and 16.

13 *TRIPs Agreement* Article 27.3 (b). It states - 'Members may also exclude from patentability: ... (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.'

seeds using 'terminator' technology and patent them.[14] These seeds do not germinate second time and farmers are forced to pay royalties for these engineered varieties of seeds. In addition, the Agreement's patent protection of products made out of genetic resources and traditional knowledge leads to bio-piracy tending to deprive local people of benefit sharing and stop their time-immemorial local usages.[15]

Thus, the monopoly right arising in the case of agriculture is likely to cause an increase in the price of seeds and other inputs, which can make many farmers unable to afford[16] or which can create a threat to the farmer's right of control over their own food production.[17] However, from the perspectives of development and reward in return of research and development (R&D) the TRIPs provisions as regards agriculture fits quite well in justificatory, further developmental and economic argument theories.[18] Because such provisions safeguard the investment in

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14 Terminator technology is also known as Genetic Use Restriction Technology (GURT).

15 Vandana Shiva, (2001) 49-53.

16 Laurence R Helfer, 'Intellectual Property Rights in Plant Varieties: An Overview with Options for National Governments' (FAO Legal Papers Online, July 2002) <http://www.fao.org/Legal/Prs-OL/lpo31.pdf> at 23 March 2008. See also, Marie Byström and Peter Einarsson, 'TRIPs Consequences for Developing Countries: Implications for Swedish Development Cooperation' (Consultancy Report to the Swedish International Development Cooperation Agency, Final Report, August 2001). Both of the researches reveal the concerns like price hike of seeds, change of livelihoods in developing countries.

17 Michael Jeffery, (2004) 198; see also, Graham Dutfield, *Intellectual Property Rights, Trade and Biodiversity: Seeds and Plant Varieties* (London: Earthscan, 2000) 27. Dutfield notes the PBRs monopolisation in the hand of MNCs and their collection of royalties from farmers under compulsion in countries like India, Thailand, Brazil, and so on.

18 Lockean compensatory justice argument says that persons (innovators) are naturally owners of the fruits (innovations) of their own labour and that the improperly taking of these fruits amounts to an attack (piracy or theft) on the self-government or even the veracity of the person. In accordance with the Hegelian self-developmental approach, the products of the mind are stamped with the personality of their inventors or creators. This feature of creations confers them with an ethical claim to exploit those products to the exclusion of third parties. And in accordance with the economic justice

agricultural R&D, encourage MNCs to develop new technology to boost up agricultural production in consideration of limited resources and move forward the economic developmental activities by means of agriculture.

Articles 27.1 and 70.8 of the *TRIPs Agreement* read together require members to offer patent protection to pharmaceutical products or processes.'[19] In terms of justificatory, further developmental, and economic argument theories patenting in pharmaceutical products is intended to have more inventions in pharmaceuticals, more welfare in health sectors. However, patenting provisions in the *TRIPs Agreement* confer in fact monopolies to MNCs by prioritising profiteering decisions as regards inventions and price-setting of pharmaceuticals. Consequently, the MNCs' apprehension of less profit causes pharmaceutical R&D to focus on first world ailments (e.g. arthritis, diabetes) at the expense of pandemic and endemic diseases such as HIV/AIDS, malaria or other tropical diseases. And developing and least developed country people suffer for this MNCs' hesitation since it results in absence of cheap or effective medication. In addition, the product patent provision causes members not to manufacture the same product by adopting different processes. This results in nonappearance of competition among drug manufactures and rise of monopolies in the hands of MNCs. Moreover, the *TRIPs Agreement* tends to protect public health interests in dire necessities by providing relaxation clauses (e.g. compulsory licensing).[20] However, such clauses with protectionism approach appear to be proving ineffective in facing pandemic and endemic diseases like HIV/AIDS.[21]

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argument an innovator or creating firm will be less likely to make investment if someone else takes into custody or appropriates at little or no cost a considerable part of the economic returns from the investment in question. See for details, Michael J Trebilcock and Robert Howse, *The Regulation of International Trade* (London: Routledge, 3rd edition 2005), 398-9.

19 *TRIPs Agreement* Article 70.8. It states, 'Where a Member does not make available as of the date of entry into force of the WTO Agreement patent protection for pharmaceutical and agricultural chemical products commensurate with its obligations under Article 27, that Member shall ... provide patent protection in accordance with this Agreement ...'

20 *TRIPs Agreement* Article 33.

21 M Rafiqul Islam, 'The Generic Drug Deal of the WTO from Doha to Cancun: A Peripheral Response to Perennial Conundrum' (2004) 7(5) *Journal of World Intellectual Property* 675.

Furthermore, the extended duration of patent which is set 20 years as minimum, ensures pharmaceutical patent owners' return in R&D. However, it makes manufacturers of generic drugs wait longer to produce the same and causes hazards in public health for developing and LDC people who mostly depend on generics which are relatively cheaper and affordable.

The *TRIPs Agreement* requires IPRs to be protected essentially by members irrespective of their developmental standing and comparative advantage in reverse engineering of IPRs products. It also requires the free use of IPRs to be treated as a trade barrier on the ground of piracy and counterfeiting. This ensures IPRs owners' investment in R&D. However, this restrains developing and LDCs from easy access to IPRs products and from tagging on the imitation model that the United States (US) and Japan followed earlier in mitigating their developmental needs.[22] For accessing to IPRs, they are further made to pay licensing fees, which are often unaffordable in consideration of their economic stability. This trend of IPRs protection appears as an obstacle in the way of technology transfer required for economic development and trade expansion.

Thus, IPRs-protection seems to encourage monopolisation and make restraints to free trade for developing and LDC members.[23] The Agreement recognises this monopolisation as private rights,[24] places them over public interests in agriculture, public, and economic development and provides non-human rights aspects of protection for them.[25] In addition, TRIPs restrictions on technology transfer and comparative

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22 See Robert H Wade, 'What Strategies are viable for Developing Countries Today? The World Trade Organisation and the Shrinking of Development Space' (2003) 10(4) *Review of International Political Economy* 621.

23 Steven Shrybman, *The World Trade Organization: A Citizen's Guide* (Ottawa: Canadian Centre for Policy Alternatives, 2nd edition, 2001) 111-2.

24 *TRIPs Agreement,* Preamble.

25 Caroline Dommen, 'Safeguarding the Legitimacy of the Multilateral Trading System: The Role of Human Rights Law' in Frederick M Abbott, Christine Breining-Kaufman and Thomas Cottier (eds), *International Trade and Human Rights: Foundations and Conceptual Issues* (Ann Arbor: University of Michigan Press, 2006) 126-7. She notes that the TRIPs non-human rights aspects include the extended term of IPRs protection, patenting of biotechnology by way of bio-piracy etc.

advantage appear to clash with the neo-liberalism principle of comparative advantage.

With the LDCs' compliance deadline i.e. 1 July 2013 and 1 January 2016 (patenting of pharmaceuticals), Bangladesh must offer patent or flexible *sui generis* protection (of its own kind) to plant varieties. However, the execution of bilateral agreements binds Bangladesh to tender the UPOV[26] style *sui generis* protection. This protection requires it to ensure plant breeders rights, stop farmers exchanging or selling the seeds and make them pay royalties each time they plant the protected variety of seeds.[27] Besides, the pharmaceutical companies will not be able to produce generics of the patented drugs on its entry into force of the *TRIPs Agreement*. Then the companies will either have to get licence or wait until the patent expires. In cases of producing generics of patented drugs, the high licensing fee bears the risk of raising the prices of essential drugs too high, not to be affordable for poor Bangladeshis.[28] Further, since Bangladesh possesses very weak R&D infrastructure, it needs technology transfer to initiate its economic development with its limited affordability of bearing the cost of licensing. However, the *TRIPs Agreement* cannot be taken granted as a tool for technology transfer for its complex formalities and strict protectionism.[29]

The above TRIPs issues appear as insinuations and challenges for Bangladesh since in its compliance, it has to resolve all of these issues taking into consideration that about one-thirds of its people mostly depend on agriculture, cannot afford medicines for their health, and rely on indigenous knowledge for their daily activities. On having based on these issues and compliance deadline, this article deals with the way-outs how these TRIPs implications and challenges can be tackled for an LDC like Bangladesh. For this, this article analyses the IPRs laws in Bangladesh

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26 The *International Convention for the Protection of New Varieties of Plants*, adopted on 2 December 1961, 815 UNTS 89 [hereinafter UPOV Convention].

27 Jai Prakash Mishra, 'Biodiversity, Biotechnology and Intellectual Property Rights: Implications for Indian Agriculture' (2000) 3(2) *Journal of World Intellectual Property* 211, 221.

28 WHO, 'Public Health: Innovation and Intellectual Property Rights' (Report of the Commission on Intellectual Property Rights, Innovation and Public Health, 2006) 22.

29 Ibid, 111.

in the context of TRIPs implications and challenges emerging under different regimes and examines the TRIPs suitability with the IPRs laws in Bangladesh.

3. IPRs Laws of Bangladesh

The currently enforceable IPRs laws in Bangladesh are in place for its compliance with the international IPRs protection regimes. Most of them are older than its membership[30] in international IPRs regimes. The laws are the *Patents and Designs Act, 1911 (Patents and Designs Act)*[31], the *Trade Marks Act, 1940 (Trademarks Act)*[32], and the *Copyright Act, 2000 (Copyright Act)*[33] as amended in 2005[34]. These IPRs law are the inheritance from colonial IPRs laws enacted in British India. They are said to have followed the [British] *Patents and Designs Act 1907*,[35] the [British] *Copyright Act 1911*[36] and the [British] *Trademarks Act 1938*[37] suiting the British interests reflecting the British empire building and colonization.[38]

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30 *WIPO Convention*, since 11 May 1985; *Paris Convention*, since 3 March 1991; *Berne Convention*, since 4 May 1999; *TRIPs Agreement*, since 1 January 1995, and *UCC* since 5 May 1975. See for details,
< http://www.wipo.int/treaties/en/SearchForm.jsp?search_what=C> 31 March 2008;
< http://www.unesco.org/culture/copyright/html_eng/ucc52ms.pdf > 31 March 2008.

31 *The Patents and Designs Act*, 1911 (ACT NO. II of 1911) *Bengal Code Vol. VII; Pakistan Code Vol. 6*, enacted 1 March 1911 (hereinafter *Patents and Designs Act*).

32 *The Trade Marks Act, 1940* (ACT NO. V of 1940) *Pakistan Code, Vol. 10*, enacted 11 March 1940 (hereinafter *Trademarks Act).*

33 *The Copyright Act, 2000* (ACT NO. XXVIII of 2000) *Bangladesh Gazette Extra 18 July 2000* (hereinafter *Copyright Act*).

34 *The Copyright (Amendment) Act, 2005* (ACT NO. XIV of 2005) *Bangladesh Gazette Extra 18 May 2005.*

35 1907 CHAPTER 29 7_Edw_7.

36 1911 CHAPTER 46 1_and_2_Geo_5.

37 1938 CHAPTER 22 1_and_2_Geo_6.

38 Hedwig Anuar and Richard Krzys 'Asia, Libraries in' in Allen Kent et al (eds), (1987) 42 *Encyclopedia of Library and Information Science* 24, 38; Keith Hodkinson, *Protecting and Exploiting New Technology and Designs* (London & New York: Spon Press Pub., 1987) 101-2.

The British laws have changed several times[39] in order to cater for the needs and developmental objectives and to keep pace with the revision[40] of the *Paris Convention* and the *Berne Convention*.[41] However the newly independent countries were bound by the conventions on the basis of the defunct rule of continuity even after decolonisation.[42] This is because when the British colonial master acceded to international IPRs regimes, the operation of such accession extended to 'His Majesty's Dominions'.[43]

In spite of the continuity of obligations, some countries conducted reviews in order to assess whether the colonial IPRs laws still suited the socio-economic conditions prevailing in those countries. India is one of them, which carried out an extensive review of its IPRs laws and found some of the IPRs rules ineffective to 'stimulate inventions among Indians and to encourage the development and exploitation of new inventions'.[44] It redesigned them to go well with its own national circumstances

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39 See for details, *The Patents Act 1977 (Amendment) Bill*, Bill 9 of 2001-02, Research Paper 01/84, 31 October 2001, <http://www.parliament.uk/commons/lib/research/rp2001/rp01-084.pdf> 12 November 2007.

40 World Intellectual Property Organization (ed), *Introduction to Intellectual Property: Theory and Practice* (London & Boston: Kluwer Law International, 1997) 388-91. The revisions enabled the Conventions to shift from soft coordination to hard institutional organisation or to provide for compulsory licensing for translation and reproduction of copyrighted educational materials in developing countries; See for details of the revisions, <http://www.wipo.int/treaties/en/ip/berne/pdf/trtdocs_wo001.pdf> 31 March 2008 [hereinafter WIPO]; < http://www.wipo.int/article6ter/en/general_info.htm> at 31 March 2008.

41 Ruth L Okediji, 'Sustainable Access to Copyrighted Digital Information Works in Developing Countries' in Keith E Maskus and Jerome H Reichman (eds) *International Public Goods and Transfer of Technology: Under a Globalized Intellectual Property Regime* (New York: Cambridge University Press, 2005) 142, 159-60.

42 Sam Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works* (Oxford: Oxford University Press, 2006, 1987) 797-807.

43 Peter Drahos, 'Developing Countries and International Intellectual Property Standard-Setting' (2002) 5(5) *Journal of World Intellectual Property* 765.

44 S Vederaman, 'The Indian Patents Law' (1972) 3 *International Review of Industrial Property and Copyright Law* 39-43.

comprising low R&D, huge population of poor people and some of the highest drug prices in the world.[45] Having started its journey from similar position and having the same circumstances, Bangladesh has not yet made it possible to review its IPRs laws.

4. Bangladesh under the WIPO Regime

Most of the IPRs laws in Bangladesh seem to be very age-old in terms of defining and protecting IPRs, covering emerging issues in IPRs, providing adequate benefits to the IPRs owners, identifying causes of infringement of IPRs in a globalised world and remedying them or keeping pace with the trends of liberalising trade and promoting sustainable development.

The *Patents and Designs Act 1911* was enacted in line with the *Paris Convention* originally adopted on 20 March 1883. Between the date of enactment of the *Patents and Designs Act* and the adoption of the *TRIPs Agreement 1994*, the concepts of patents and designs have come across massive development through adoption of a large number of international conventions[46] and decisions of courts throughout the world. They recommended enactment of uniform laws on intellectual property including patents and designs. For Bangladesh as a member of the *Paris Convention,*[47] the current Act requires to be updated in order to validate certain revisions and amendment made to the *Paris Convention* as regards independence of patents obtained for the same invention in different countries,[48] mention of the inventor in the patent,[49] protection of industrial designs in all the member countries[50] or prevention of unfair

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45 Ibid.

46 Amongst them are several revisions for *Paris Convention for the Protection of Industrial Property*, *Convention on the Grant of European Patents* (adopted in Munich, 5 October 1973 *BGB1. 1976 II, 649*, 826), *Convention for the European Patent for the Common Market* (adopted in Luxembourg, 15 December, 1975, *76/76/EEC*), and *Patent Co-operation Treaty* (adopted in Washington, 19 June 1970, *1970 TIAS 8733*).

47 Ibid.

48 *Paris Convention* Article 4*bis*.

49 Ibid, Article 4*ter*.

50 Ibid, Article 5*quinquies*.

competition through effective use of compulsory licensing or parallel importation[51] etc.

The *Trademarks Act 1940* was enacted as an instrument of protection of the industrial property as formulated in the *Paris Convention.* Over the years the definition and scope of trademarks have undergone gradual international development and application[52] and the Convention has also contained some revisions. These revised or amended provisions of the Convention are not covered in the present Act. Some of them include refusal or cancellation of registration or use of well-known marks in another member country[53] or protection of marks registered in one member country in the other member countries.[54]

The *Copyright Act 2000* as amended in 2005 and substituted the *Copyright Ordinance 1962*[55] is updated in many respects as required by the *Berne Convention.* In accordance with the Convention, the old statute required to incorporate compulsory licensing as regards translation and reproduction of copyrighted materials keeping in consideration of the educational needs of Bangladesh and its developing country status.[56] The old ordinance also lacked provision in relation to protection of broadcasting and related rights.[57]

5. Bangladesh under the TRIPs Regime

Inspiring inventions among the Bangladeshis, encouraging development and exploitation of new inventions, and ensuring rights and obligations of parties therein through appropriate protection appears to be a daunting task for these laws. In the meantime, like other LDCs Bangladesh aspires to attract FDI, technology transfer and innovation enabling it to promote economic development.[58] To this end, it enters the age of trade liberalisation by signing all the WTO Agreements including

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51 Ibid, Article 10*bis*.

52 e.g. geographical indications have started getting registered as trademarks.

53 Ibid, Article 6*bis*.

54 Ibid, Article 6*quinquies*.

55 Ordinance No. XXXIV of 1962 (now stands repealed), *Gazette of Pakistan* 2 June 1962.

56 *Berne Convention* Articles 2*bis*, 9.2, 10.2, 10*bis* and the ten year rule, Article 30.2(b).

57 Ibid, Article 11*bis*.

58 Carlos M Correa, *Intellectual Property Rights, the WTO and Developing Countries: The TRIPs Agreement and the Policy Options* (Oxford: Oxford University Press, 2007) 23-24.

the TRIPs on 1 January 1995.[59] The *TRIPs Agreement*'s strict protection regime generates some tensions as well as challenges for Bangladesh in the fields of legal and institutional framework, agriculture, health, traditional knowledge and geographical indications, information technology, economic development, and human rights.

5. 1. Implications in Legal and Institutional Framework

In order to enjoy the WTO membership by way of preventing IPRs-misappropriation and accessing to developed countries markets, the *TRIPs Agreement* requires Bangladesh to update its the long-standing colonial laws. It also requires Bangladesh to have an extended and modern legal framework, sufficient and equipped administrative offices manned with efficient and trained personnel, capable state mechanism to monitor transfer of technology arrangements. Since all of these involve huge budget and expertise for now and future, a least developed country like Bangladesh may not easily afford them.[60] A study of World Bank and UNCTAD estimates that Bangladesh may need approximately US$ 250,000 one time plus US$ 1.1 million per annum for reform and capacity building on intellectual property law in the context of the *TRIPs Agreement*.[61]

While doing a similar review on Vietnam, Michael Smith notes that copying the laws or legal structures of the developed countries is a simple matter but maintaining an effective structure of laws and enforcement procedures compatible with those of developed countries and encouraging domestic innovations is a multidimensional process causing impending pitfalls.[62]

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59 < http://www.wto.org/english/thewto_e/countries_e/bangladesh_e.htm> at_12 November 2007.

60 UNCTAD, 'The *TRIPs Agreement* and the Developing Countries' (1996) 2-3.

61 Jayashree Watal, 'Implementing the *TRIPs Agreement*' in Bernard Hoekman, Aaditya Mattoo and Philip English (eds), *A Hand Book on Development Trade and WTO* (Washington, D.C.: The World Bank, 2002) 1-10.

62 Michael W Smith, 'Bringing Developing Countries' Intellectual Property Laws to TRIPs Standards: Hurdles and Pitfalls Facing Vietnam's Efforts to Normalise an Intellectual Property Regime' (1999) 31(1) *Case Western Reserve Journal of International Law* 211.

The Least Developed Countries Report 2007 corroborates the apprehension when it says, '[T]he *TRIPs Agreement* is highly problematic for LDCs owing to the high transaction costs involved in complex and burdensome procedural requirements for implementing and enforcing appropriate national legal provisions. LDCs generally lack the relevant expertise and the administrative capacity to implement them.'[63]

5.2. Implications in Agriculture

The *TRIPs Agreement* requires Bangladesh to provide for the protection of plant varieties either by patents or by an effective *sui generis* (of its own kind) system or by any combination thereof. On using the flexibility Bangladesh is not bound to provide a stringent protection for plant varieties by way of patent; rather it is allowed is adopt a less harsh approach of '*sui generis*'.[64] This approach is not so lenient as is expected since the developed countries contend that the expression 'by an effective *sui generis* system' is meant to be the UPOV style protection.[65]

For Bangladesh, UPOV style is a must because it executes the *United States-Bangladesh Bilateral Investment Treaty1986*[66] or the *European Union-Bangladesh Cooperation Agreement on Partnership and Development 1999*[67] containing the TRIPs Plus requirements of acceding to the Budapest Convention (micro-organism) and adopting of the UPOV Convention respectively.[68] Both of these bilateral agreements bind Bangladesh to become a party of the UPOV Convention. In view of these provisions, the plant varieties protection is supposed to ensure plant breeders rights

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63 UNCTAD, *The Least Developed Countries Report 2007 Report: Knowledge, Technological Learning and Innovation for Development* (2007) 99.

64 Megan Bowman, 'Intellectual Property Rights, Plant Genetic Resources and International Law: Potential Conflicts and Options for Reconciliation' (2007) 4(1) *International Journal of Intellectual Property Management* 277, 287. She notes that the plant variety protection by *sui generis* system of IPR creates a greater degree of flexibility for TRIPs members.

65 Anitha Ramanna, 'IPRs and Agriculture: South Asian Concerns' (2003) 4(1) *South Asia Economic Journal* 55, 63.

66 See above n 7.

67 Ibid.

68 UNCTAD, *The Least Developed Countries Report 2007 Report: Knowledge, Technological Learning and Innovation for Development* (2007) 99.

in stopping the Bangladeshi farmers exchanging or selling the seeds and make them pay royalties each time they plant the seeds.[69] Now in absence of any legislation securing farmers' rights, it may cause havoc to the agriculture-prone Bangladesh resulting in change of livelihood of farmers and affecting the foodstuffs produced from the seeds.[70]

In addition, due to the increased rent-generating role of IPRs, the agricultural research which is basically in the hand of public sector in Bangladesh is gradually getting privatised.[71] Besides, some local small seed breeders which play a major role in breeding, are merging with MNCs now-a-days. With the expectation of huge profits, these private sector companies have been investing huge money in agro-biotechnology research. They are inventing more plant or rice varieties using terminator technologies and making the use of these varieties, dependent on herbicides and pesticides produced by them. As a result, farmers who were once reliant on the public sector for cheaper seeds, now depend on private sectors for more varieties and dependent fertilisers, herbicides, and pesticides. In absence of price regulations or anti-competition law, the farmers are made to pay a higher price. The higher price and

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69 Jai Prakash Mishra, 'Biodiversity, Biotechnology and Intellectual Property Rights: Implications for Indian Agriculture' (2000) 3(2) *Journal of World Intellectual Property* 211, 221.

70 Gerard Downes, 'TRIPs and Food Security: Implications of the WTO's *TRIPs Agreement* for Food Security in the Developing World' (2004) 106(5) *British Food Journal* 366, 376.

71 UNEP-GEF Project on Development of National Bio-safety Frameworks, 'Bangladesh: National Progress Report Submitted to the Third Series of Sub-Regional Workshop' (2003/2004) <http://www.unep.ch/biosafety/development/country reports/BDprogressrep.pdf> at 28 November 2007. In the report it notes that public sector biotechnology institutes such as Bangladesh Agricultural Research Institute (BARI), Bangladesh Council for Scientific and Industrial Research (BCSIR), Bangladesh Agricultural Research Council (BARC), Bangladesh Agricultural Development Corporation (BADC), Bangladesh Agriculture University (BAU) and so on are competing with private sector multinational corporations like Novartis and their local agents, NGOs like BRAC, Grameen Krishi Foundation, Proshika, DEBTECH and so on.

terminator seeds raise the costs of farming and cause detriments to poor farmers in Bangladesh.[72]

Furthermore, Bangladesh does have the *Bangladesh Standard and Testing Institute Ordinance 1984* to test the quality and standard of fertilisers, herbicides, and insecticides used in agricultural farming and assess their suitability in the soil. Due to the shortage of advanced technology and expert manpower, these functions of the Bangladesh Standard and Testing Institute are not carried out. As a result, Bangladesh faces some potential concerns arising out of the toxicities of hybrids-fertilisers-herbicides-insecticides linkages in its soil. The concerns include loss of soil fertility, low organic matter contents in the soil, low level of nitrogen in almost all soil types, deficiency in P, deficiencies in Z, S and B etc.[73]

Whatever impacts the PVP provisions of the *TRIPs Agreement* do have on agriculture in Bangladesh, in order to feed 150 million people in Bangladesh, the necessity of growing much food in a limited area, patenting of agricultural biotechnology and its use can not be denied. So, Bangladesh needs to frame a legislation providing breeders rights as well as farmer's rights within the purview of *TRIPs Agreement*, *UPOV Convention*, *CBD* and *ITPGRFA*. Plant breeders' rights can forward the country's public or private sector research to invent new varieties suiting the local conditions. The Agreement enables Bangladesh to protect its traditional plant varieties through *sui generis* protection. Besides, to have the benefits of the *TRIPs Agreement*, the enactment of a competition law is

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72 e.g. Enrico Bonadio, 'Crop Breeding and Intellectual Property in Global Village' (2007) 29(5) *European Intellectual Property Review* 167-71. He notes that due to increasing intellectual property protection, agricultural research is privatised; small seed breeders which once played a major role in inventing varieties have started merging with MNCs. These larger firms tend to produce an oligopoly allowing them greater freedom to engage in price fixing and anti-competitive behaviour through inducing farmers; Mahbub Hossain and Uttam K Deb, 'Trade Liberalisation and Rice Sector in Bangladesh: Next Step in Rice' [2003] *Journal of the Bangladesh Rice Foundation* (26 January 2003) 79.

73 Farid U Ahmed, 'Systems and National Level Experiences for Protecting Traditional Knowledge, Innovations and Protections: Experience of Bangladesh' (Paper presented at the UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, Geneva, 30 October – 1 November 2000).

essential, because it can regulate the price control so that patenting of seeds and agrochemicals do not become a barrier to the agricultural means of livelihood of the Bangladeshis.

5. 3. Implications in Access to Medicines

The pharmaceutical companies in Bangladesh are engaged in formulation of active pharmaceuticals ingredients (APIs)[74] for major international brands of leading multinational companies, production of generics of patented and off-patent drugs.[75] With the entry into force of the *TRIPs Agreement*'s provision on pharmaceuticals patents from 2016, the local pharmaceutical companies will not be able to produce generics of the patented drugs. They will have to either get licence or wait until the patent expires. In cases of producing generics of patented drugs, the high licensing fee bears the risk of raising the prices of essential drugs too high, not to be affordable for poor Bangladeshis.[76]

5. 3. 1. Paragraph 6 of the Doha Declaration[77]

In the meantime, since the pharmaceutical companies in Bangladesh have manufacturing capacities and they do not need licensing, under paragraph 6 of the Doha Declaration, they can utilise the transitional period and use the clinical test data in areas of pharmaceutical products and related processes in producing generics of the patented life saving drugs through

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74 An active pharmaceutical ingredient (API) is the substance in a drug that is pharmaceutically active. The term is similarly used in pesticide formulations where active substance is also used. Some medications may contain more than one active ingredient. The traditional word for the API is pharmacon (from Greek: (φάρμακον), adapted from pharmacos) which originally denoted a magical substance or drug. A dosage form of a drug is traditionally composed of two things: The API, which is the drug itself and an excipient, which is the substance of the tablet, or the liquid the API is suspended in, or other material that is pharmaceutically inert. Drugs are chosen primarily for their active ingredients. < http://en.wikipedia.org/wiki/Active_ingredient> 2 April 2008.

75 UNCTAD, (2007) 114-5.

76 WHO, 'Public Health: Innovation and Intellectual Property Rights' (Report of the Commission on Intellectual Property Rights, Innovation and Public Health, 2006) 22.

77 WTO Doc. WT/MIN (01)/DEC/1, <www.wto.org> 07 July 2008.

reverse engineering.[78] These drugs can be accessed for local use at an affordable price. They also hold a very good prospect for Bangladesh for their export in the world market.[79] The UNCTAD findings in 2007 that Bangladesh exports a large range of drugs to 67 countries corroborate this assumption.[80]

5.3.2. Paragraph 7 of the Doha Declaration

During the transitional period, the Agreement requires Bangladesh to store all applications seeking patents in the mail box and provide the owner an exclusive marketing right for the invention applied for. However, in consideration of the concerns already raised as regards patent monopolisation of drugs, the exclusive marketing rights provision has been waived till the end of the transitional period for least developed countries. This will go in favour of the poor people in LDCs like Bangladesh in accessing the patented drugs prior to the local registration of patents for these drugs get effective.

5.4. Implications in Traditional Knowledge and Geographical Indications

Patenting medicinal plants and indigenous knowledge through modification in modern library may cause damage to the biodiversity of Bangladesh.[81] It may result in injuring the livelihood of small producers and depriving the poor from using their own traditional resources and knowledge on which they are dependent for their basic needs of health and nutrition.[82] Bangladesh needs laws containing *sui generis* protection or

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78 <http://www.wto.org/english/tratop_e/trips_e/implem_para6_e.htM> 2 April 2008.

79 Centre for Policy Dialogue, 'Post Doha Consultation' (Report No. 46, Dhaka, May 2002) [hereinafter CPD].

80 UNCTAD, (2007) 100.

81 Bangladesh Environmental Lawyers Association, 'Traditional Knowledge and State of Bio-diversity in CHT: Case Study of Khagrachhari' (Research Report, Dhaka, March 2003) [hereinafter BELA]; <http://www.sawtee.org/pdf/publication/traditionalbanglades.pdf> 12 October 2007. The report notes that the marketing of local seeds through modification as opposed to the traditional way of preservation by women causes damage to the biodiversity.

82 Ibid.

provisions for preserving biological diversity, herbal medicines and knowledge, heritage and culture, and domestic natural resources.[83] In absence of such laws, the current IPRs protection regime thus carries the risk of violating their human rights to livelihood, health, and nutrition and putting their survival in threats.[84]

In Bangladesh, there are some region-specific handicrafts, tea, spice, sweets, fruits, rice, and so on.[85] In absence of laws ensuring effective GI protection, marketing of similar products making false indications misleads the public and encourages unfair competition. Given the circumstances, Bangladesh needs to take timely measures toward amendment to the existing laws or enactment of new laws, initiatives for notification and registration of geographical indications. It will also have to take initiatives to prepare the list of the product eligible for GI protection.[86]

5.5. Implications in Information Technology

The *TRIPs Agreement* requires Bangladesh to adopt strict copyright regime, which may limit the availability of educational materials for Bangladeshi school and university students.[87] In addition, strict copyright protection to computer programmes will stop reverse engineering, which can cause tension for growing software industry in Bangladesh. Further, protection of layout designs of integrated circuits through *sui generis* protection under the *Washington Treaty* bears the risk of affecting the potential semiconductor industry in the country.

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83 Debapriya Bhattacharya, et al, 'Hong Kong Declaration of the WTO: Reflections on the Outcomes from Bangladesh Perspective' (March-April 2006) 34(2) *The Cost and Management* 68-83.

84 Sadeka Halim, A T M Al Fattahm and Omar Faruque, 'Intellectual Property Trap: Search for an Alternative' (International Seminar on the North-South and South-South Research Partnership, Cartagena de Indias, Colombia, 28-30 December 2002).

85 Donald McClatchy, 'The Ongoing WTO Negotiations on Agriculture: Issues and Options for Bangladesh' (Paper 15, Centre for Policy Dialogue, Dhaka, February 2002).

86 A recent communication with the Ministry of Industry, Government of the People's Republic of Bangladesh, reveals that the process is underway since 2003.

87 UNCTAD, (2007) 100.

5.6. Implications in Technology Transfer and Economic Development

There is a huge debate whether *TRIPs Agreement* fosters technology transfer in developing and least developed countries and the next issue is whether technology transfer contributes to economic development. For countries like South Korea, Taiwan, and Brazil technology transfer has taken place in absence of strong IPRs laws during pre-TRIPs regime and they are now about to have the developed country status, whereas some African countries like Senegal and Niger have received very little technology transfer though they have IPRs laws, very similar to those of developed countries.[88] In this context, it needs to be examined whether Bangladesh, which is exceptional in many ways in the LDC category owing to its flourishing domestic processing sector consisting of ready-made garments (RMG), processed food products and generic drugs,[89] needs technology transfer for its economic development or whether its flourishing domestic processing sector owes to IPRs controlled technology transfer.

For economic and technological development, developing and least developed countries seek access to foreign technology and in response developed countries set IPRs as a key condition to promote increased flows to technology transfer to developing countries.[90] Now the question is whether technology transfer depends on IPRs.

In all three channels of formal technology transfer i.e. international trade in goods/imports, foreign direct investment/joint venture and licensing as noted by Maskus, IPRs may come into play. In informal mode of technology transfer i.e. imitation and copying, IPRs do not have any impact. That's why, in cases of economic and technological development of South Korea, Taiwan and Brazil, IPRs were of no use.

With adoption of the *TRIPs Agreement*, the informal mode of technology transfer gets strictly prohibited. Moreover, due to very little R&D in

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88 Carlos M Correa, 'Can the TRIPs Foster Technology Transfer to Developing Countries?' in Keith Maskus and Jerome H Reichman (eds), *International Public Goods and Transfer of Technology under a Globalised Intellectual Property Regime* (New York: Cambridge University Press, 2005) 227-8.

89 UNCTAD, (2007) 109-110.

90 Correa, (2005) 227.

developing and least developed countries, these countries depend strongly on foreign technology.[91] Now the *TRIPs Agreement* is required to regulate technology transfer, which may bring increased profits and more innovation to developed countries through rents from developing and least developed countries for protected goods and technologies.[92] As a result, developing and least developed countries may treat IPRs as a blockade to technology transfer. In addition, the *TRIPs Agreement* puts some typical restriction on technology transfer: tie-ins, export restrictions, requirement guarantees, and competition restrictions.

Since Bangladesh possesses very weak R&D infrastructure or it cannot afford the cost of licensing, informal technology transfer could be a good alternative tool for its economic development, where IPRs will not be able to impact on technology transfer. Even in the case of progress in domestic processing centre, the presence of IPRs does not play any role in any of the technological transfer modes.[93]

The *TRIPs Agreement* also indicates some shortcut ways to get the technology transfer free. They include compulsory licensing, parallel imports, Bolar exception and so on where IPRs do not have any impact. On its failure, there might be call to reform the Agreement. That's the reason of Ban Ki Moon's assertion that '[t]he rules of intellectual property need to be reformed, so as to strengthen technological progress and to ensure that the poor have better access to new technologies and products.'[94]

Due to the institutional challenges and above all, transitional period, IPRs infringement predominantly of computer software, motion pictures, audio and videocassettes, pharmaceutical products, agricultural products, literary works, and so on goes in rampage.[95] It seriously affects the

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91 Carlos M Correa, 'Pro-competitive Measures under TRIPs to Promote Technology Diffusion in Developing Countries' in Peter Drahos and Ruth Mayne (eds), *Global Intellectual Property Rights: Knowledge, Access and Development* (New York: Palgrave, 2002) 41.

92 Ibid.

93 UNCTAD, (2007) 111.

94 <www.un.org/ecosoc> 2 April 2008.

95 International Intellectual Property Alliance, '2007 Special 301: Bangladesh' (12 February 2007) 202;

stakeholders who may rethink to invest further or facilitate technology transfer in the form of foreign direct investment, joint venture, etc. This may cause an adverse effect on the economic development of Bangladesh.

5.7. Implications in Human Rights

Bangladesh will not have to carry out the entire IPRs obligations coming out of the *TRIPs Agreement* during the transitional period. During this interim period, being a WIPO member it has existing obligations as regards patent, copyright and trademarks under its IPRs laws framed in line with the WIPO-affiliated conventions and treaties. All of these laws contain human rights implications in a least development country context.

Under the existing *Patents and Designs Act* it offers patents to pharmaceutical processes. On attaining the full fledged TRIPs obligations, it shall have to add patent protection to pharmaceutical products. As a result, it will not be able to continue copying or reverse engineering in producing generics of patented life saving drugs. To produce them, the pharmaceutical companies will have to get licences from the foreign patentees. Since it involves huge expense, it carries the risk of increasing price of pharmaceuticals. This will affect 33% of the poor people who live below the poverty line[96] and they will not be able to get access of drugs. It will cause concerns for their right to health or life.

On the Agreement's entry into force, the country will have to offer plant varieties protection. It carries the potential to curtail farmers' rights as regards exchanging or selling seeds. Moreover, by using patented terminator seeds, they will have to depend on special type of seeds, which increase farmers' costs of farming. As a consequence of this, farmers' right to food in agriculture-prone Bangladesh is likely to get affected.[97]

<ww.iipa.com/rbc/2007/2007SPEC301BANGLADESH.pdf> 19 November 2007 [hereinafter IIPA].

96 Economic And Social Commission For Asia And The Pacific (ESCAP), 'Country Report: Bangladesh' (Macao, China, 9 October 2007)

97 Mahfuz Ullah, *Intellectual Property Rights and Bangladesh* (Dhaka: Centre for Sustainable Development, 2002) 48-56.

In addition, patenting of biotechnology carries the concerns of bio-prospecting the traditional knowledge, destroying biodiversity and affecting sustainable development.[98]

The existing Copyright Act affects the right to education mostly dependent on books, journals, electronic resources and other educational materials copyrighted in a foreign country. It limits students and researchers often with least financial capability in accessing these materials. Unless these materials are produced locally under compulsory licence or imported from countries producing generic versions under compulsory licence and sold at a cheaper rate, Bangladesh will have to face multidimensional constrains in education. It may lead to copyright piracy as is recently reported by the International Intellectual Property Alliance.[99]

The success in facing these human rights implications and challenges of the *TRIPs Agreement* may bring forth the light in fulfilment of the constitutional vision of Bangladesh for a society, which will ensure human rights and adopt measures to conserve the cultural traditions and the heritage of the people.[100]

7. Concluding Remarks

To get rid of TRIPs implications and challenges, there may be two possible way-outs: (1) making drastic amendments to the TRIPs Agreement accommodating the developing countries' developmental needs and (2) suspending the operation of the TRIPs Agreement unless the developing and least developing countries can reach a level playing field. The first option can be made possible by incorporating special and differential treatment for developing countries in fulfilling their developmental needs, which is currently available in terms of deadline for compliance. The second option is possible if developed countries come forward with some genuine assistance as promised but these are vaguely provided in the body of the TRIPs Agreement. So far Bangladesh is

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98 BELA, (2003).

99 IIPA, '2008 Special 301 Report' (11 February 2008). It recommends the USTR to place Bangladesh atop the Watch List for copyright piracy and other IPRs violations.

100 Mahfuz Ullah, (2002) 33.

concerned, it can get forward in both ways. Unless is anything done, it can provide some *sui generis* protection to plant varieties for its domestic uses, it can utilise Paragraphs 6 and 7 of the Doha Declaration for manufacturing generics of patented drugs and exporting to other countries. Since it has manufacturing capacity, it can incorporate fair use, Bolar exception clauses for invoking foreign patented and copyrighted products keeping in mind its developmental needs. Again, since it has manufacturing capacity for producing drugs or copying other IPRs products, it can go for renting technologies, produce products for domestic consumption and exports. This will ultimately go a long way for Bangladesh in gaining economic development, and protecting and promoting human rights in agriculture, health, education and others.