

# TRIPS Agreement of the WTO



TRIPS Agreement of the WTO:  
Implications and Challenges for Bangladesh

By

Mohammad Towhidul Islam

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P U B L I S H I N G

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by Mohammad Towhidul Islam

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To my family



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## PREFACE

This book examines the application of the World Trade Organization (WTO) *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS) in the fields of agriculture, public health and economic development in a least developed country (LDC) such as Bangladesh. In particular, it evaluates the question whether the TRIPS' one-size-fits-all approach compulsorily applicable for all countries, irrespective of their development standing, fulfils the developmental needs of Bangladesh in the fields of agriculture, public health and economic development.

In answering this question, the book re-visits the debate on the international intellectual property rights (IPRs) system starting from the World Intellectual Property Organization (WIPO) regime to the WTO. This discussion is critical from the standpoints of both the developed countries that own IPRs and prosper by renting them and the developing countries and LDCs that appropriate IPRs in ensuring agriculture-prone livelihoods of the peoples, public health and economic well-being. With these issues acting as the backdrop, the research question attempts to put the legal discourse, including the TRIPS, IPRs related treaties and Bangladesh IPRs laws, into perspective in determining the TRIPS implications and challenges for Bangladesh.

The analysis shows that the TRIPS introduction of IPRs in the name of plant varieties protection (PVP) and patents not only secures private sector investment in agriculture but also brings traditional agricultural practices within the spectrum of private monopoly, increases the price of agricultural products and forces people into dependency on engineered seeds and other agricultural inputs. To guard against such trade rules, the research recommends that Bangladesh should incorporate the TRIPS flexibilities either in its *Patents and Designs Act, 1911* or in a new PVP legislation. The flexibilities can appear in the form of redefining patentable invention, choosing between patents and PVP and providing for compulsory licensing.

The analysis also reveals that the TRIPS patenting in pharmaceuticals encourages innovations by ensuring royalty collections and protects public health by raising standards of living. However, patenting offers exclusivity to pharmaceutical companies, extending the duration of the patent term and establishing their control over production, supply and distribution.



Such means of control results in exclusivity over drug pricing. The flexibilities of compliance deadline, compulsory licensing, parallel importation and others built into the TRIPS are set to tackle untenable situations arising from patenting exclusivity. However, patent laws in most LDCs are age-old in terms of capturing such flexibilities. Given this, the research recommends that LDCs such as Bangladesh should invoke the TRIPS flexibilities—transitional and after compliance. This can lead to a change in compulsory licensing provisions, making public interests and security exceptions as a criterion for issuing licences. This can also allow parallel importation of the over-priced drugs and safeguard against other anti-competitive practices.

The analysis further establishes that the TRIPS standard-setting in relation to agriculture and pharmaceuticals does not help the country to fulfil subsistence needs or promote economic development through innovations. However, the appropriation of agricultural and pharmaceutical goods during use of the TRIPS flexibilities has the potential to feed the people, protect public health interests and increase economic development with the supply of food and drugs at home and abroad. To this end, the research asks Bangladesh to reform its existing IPRs provisions by redefining patentable inventions and simplifying compulsory licensing and other differential treatments to appropriate foreign technologies. It also urges for further negotiations that can dictate the TRIPS to include mandatory provisions on technology transfer arrangements in order to reward LDCs who tend to comply with the TRIPS in spite of their clear disadvantages.

To conclude, the research asks Bangladesh and other LDCs to press for the further extension of the compliance deadline which is currently 2013, and 2016 for pharmaceutical patenting, since the circumstances that led to the previous extension continue to exist.

This book contains six chapters. The inter-relation between the chapters is as follows:

- The first chapter ‘TRIPS Agreement and Bangladesh: Mapping out the Context for Implications and Challenges’ introduces the thesis and provides background information leading to the research questions. It then outlines the parameters upon which these questions stand. The chapter then outlines the direction and rationale of the research. It also delimits the scope of the research and describes the methodology to be followed. Finally, it explains how the organisation of the book addresses the research questions.
- The second chapter ‘Origin and Growth of the TRIPS Agreement from WIPO to WTO: Politics and Problems’ contextualises the

scope and significance of the research questions. It analyses the debate in the forums of the WIPO, the GATT, and the WTO that initiated the development and protection of IPRs and benchmarks the protection with the adoption of the TRIPS. The chapter also analyses the strengths and weaknesses of the WIPO and the GATT regimes that help some countries make economic development through innovations and reverse-engineering while others allege insufficient rewards for their creations. These latter countries press for a strengthened regime with wider and longer protection of IPRs. The chapter also analyses how the IPRs protection finds places in LDCs that have nothing to do with the protection of inventions but appropriate IPRs for meeting survival needs. The intention of such analysis is to find the points of departure from the previous IPRs regimes and prepare grounds for the investigation of the TRIPS with a view to owning IPRs and appropriating interests. The sector-wise examinations of the TRIPS include TRIPS and Agriculture, TRIPS and Public Health, and TRIPS and Economic Development.

- The third chapter 'TRIPS Agreement and Agriculture: Implications and Challenges for Bangladesh' deals with the protection of IPRs in agriculture as provided in the TRIPS. This is the first in the series of the TRIPS analyses. It examines IPRs in agriculture from the perspective of IPRs-owning interests, which often involve the bio-prospecting of natural resources and also from the viewpoint of users such as Bangladesh, where the use of natural resources is a traditional practice.
- The fourth chapter 'TRIPS Agreement and Public Health: Implications and Challenges for Bangladesh' continues the series analyses of the TRIPS and focuses on its patenting provisions in relation to pharmaceuticals. In particular, the chapter deals with the relationship between the TRIPS and public health. It examines whether patenting in pharmaceuticals raises standards of living as well as ensuring rewards for further investments or deteriorates public health in countries like Bangladesh that have low income and cannot afford patented medicines.
- The fifth chapter 'TRIPS Agreement and Economic Development: Implications and Challenges for Bangladesh' highlights the TRIPS impact on and prospects for economic development, and is a continuation of the series analyses of the TRIPS. This analysis takes IPRs protection as a means for developed countries to initiate innovations in agriculture, especially for the development of new varieties and the initiation of innovations in pharmaceuticals. In

this context, IPRs protection ensures that developed countries are able to rent such innovations and thus increase their economic development. This analysis also takes IPRs protection as a means for LDCs such as Bangladesh with a thriving manufacturing capacity to attract technology transfer in agriculture and pharmaceuticals or to extract the TRIPS flexibilities in order to reverse IPRs products and supply them at home and abroad to enhance economic development.

- And finally, the sixth chapter ‘TRIPS Agreement and Bangladesh: A Way Forward’ concludes the study with a summary of the recommendations and contributions made in each chapter in response to the research questions and aim of the research.

This book builds upon work completed for my doctorate in 2011. The development of my argument owes enormously to discussions with my two doctoral supervisors at Macquarie University, Dr Shawkat Alam and Professor Rafiqul Islam. I owe the most gracious thanks and gratitude to my principal supervisor, Dr Shawkat Alam, who, despite his own busy schedule, generously gave his time to enable me to maintain my self-imposed time frame for completing the research. His insightful criticisms on every aspect of the research, valuable suggestions, understanding and patience were exceptional. Dr Alam helped me to establish initial contact with some of the key resources for my study. I deeply appreciate the role he played when my health broke down. His encouragement during that time was as a ray of hope glimmering from a lighthouse. I owe a particular debt to my associate supervisor, Professor Muhammad Rafiqul Islam, for his invaluable guidance in writing the thesis and for reading and commenting on many drafts with thoughtful insights, who provided wonderful advice, feedback, and support throughout three and half years.

I am profoundly thankful to Macquarie University for its scholarship, which enabled me to undertake this research. I thank the staff of the university, the Higher Degree Research Office and the library that provided timely support to keep the research process on track. I would like to especially thank Macquarie Law School and its staff for providing me with excellent logistical, financial and other generous assistance, which allowed me to complete my research project. I also offer sincere thanks to my fellow higher degree research students for all the fun, friendship and useful arguments while working together.

I would like to thank University of Dhaka for granting me study leave to conduct the research. I also thank my parents, extended family members and friends for their prayers, help and encouragement for the progress of my doctoral studies.

At Macquarie, in fulfilling the requirements for the doctoral degree, I followed the ‘thesis by publication’ mode. Having based on the draft chapters, I published refereed articles in [Oxford] Journal of Intellectual Property Law and Practice, Macquarie Journal of Business Law, [Sweet and Maxwell Journal] International Trade Law and Regulation, Manchester Journal of International Economic Law, Mediterranean Journal of Human Rights, and Sri Lanka Journal of International Law. For peer reviewing the articles, I extend great thanks to anonymous reviewers of these journals.

I am especially grateful to Dr Lisa Lines who read and commented on the full draft thesis. I also benefited tremendously from comments provided by the examiners of my thesis and from an anonymous reviewer of the Cambridge Scholars Publishing. I also extend my thanks to the Cambridge Scholars Publishing for guiding this manuscript to completion. I accept full responsibility for any errors, omissions or deficiencies anyone may find in this book.

Finally and most importantly, I tender my heartfelt love and gratefulness to Khushi, my lovely wife, and Daiyan, my adorable son for their affection and unwavering support, for putting up with my tantrums and for sparing me from household responsibilities, all of which made it possible for me to reach the finishing line.

And finally, I dedicate this book to my parents.

April 2013

## LIST OF ABBREVIATIONS

A2K	Access to Knowledge
ABS	Access and Benefit Sharing
AFPF	Armed Forces Pharmaceutical Factory
AIDS	Acquired Immune Deficiency Syndrome
API	Active Pharmaceutical Ingredient
ARV	Antiretroviral
BADC	Bangladesh Agriculture Development Corporation
BARC	Bangladesh Agricultural Research Council
BAU	Bangladesh Agriculture University
BELA	Bangladesh Environmental Lawyers' Association
BINA	Bangladesh Institute of Nuclear Agriculture
BIRPI	United International Bureau for the Protection of Intellectual Property
BIT	Bilateral Investment Treaty
BMI	Business Monitor International
BRI	Bangladesh Rice Research Institute
BSCIC	Bangladesh Small and Cottage Industries Corporation
Bt	<i>Bacillus thuringiensis</i>
CBD	Convention on Biological Diversity
CINVESTAV	Centre of Research and Advanced Studies
CPGRFA	Commission on Plant Genetic Resources for Food and Agriculture
DPCO	Drug Price Control Order

DPDT	Department of Patents, Designs and Trademarks
EC	European Community
ECOSOC	Economic and Social Council
EDCL	Essential Drug Company Limited
EDV	Essentially Derived Variety
EMR	Exclusive Marketing Right
EPC	Convention on the Grant of European Patents
ETP	Effluent Treatment Plant
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GATT	General Agreement on Trade and Tariff
GDP	Gross Domestic Product
GI	Geographical Indication
GMO	Genetically Modified Organism
GPO	Government Pharmaceutical Organization
GSP	Generalised System of Preferences
GURT	Genetic Use Restriction Technology
HAL	Hindustan Antibiotics Ltd
HIV	Human Immunodeficiency Virus
IARC	International Agricultural Research Council
ICC	International Chamber of Commerce
ICJ	International Court of Justice
ICTSD	International Centre for Trade and Sustainable Development
IDPL	Indian Drugs and Pharmaceuticals Ltd
IPC	Intellectual Property Committee
IPGRI	International Plant Genetic Resources Institute

IPRs	Intellectual Property Rights
IRRI	International Rice Research Institute
ISAAA	International Service for the Acquisition of Agri-Biotech Applications
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature and Natural Resources
IUPGRFA	International Undertaking on Plant Genetic Resources for Food and Agriculture
LDC	Least Developed Country
MDG	Millennium Development Goal
MFN	Most Favoured Nation
MNC	Multinational Company
MSF	Médecins sans Frontières
MTA	Material Transfer Agreement
NBA	National Biodiversity Authority
NDP	National Drug Policy
NGO	Non-governmental Organisation
NIC	Newly Industrialised Country
NIEO	New International Economic Order
NPVC	New Plant Variety Certificate
OECD	Organisation for Economic Cooperation and Development
OLI	Ownership, Location and Internalisation
OTC	Over-the-counter
PBRs	Plant Breeders' Rights

PGRs	Plant Genetic Resources
PLT	Patent Law Treaty
PVP	Plant Varieties Protection
PVPC	Plant Variety Protection Certificate
R&D	Research and Development
RMG	Ready-made Garment
SME	Small and Medium Enterprise
SPLT	Substantive Patent Law Treaty
TIFA	Trade and Investment Framework Agreement
TK	Traditional Knowledge
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
TUA	Technology Use Agreement
UDHR	Universal Declaration of Human Rights
UK	United Kingdom
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UNO	United Nations Organization
UPOV	International Convention for the Protection of New Varieties of Plants
US	United States
USDA	United States Department of Agriculture
USFDA	United States Food and Drug Administration
USTR	United States Trade Representative



VAT	Value Added Tax
WHA	World Health Assembly
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization



# CHAPTER ONE

## TRIPS AGREEMENTS AND BANGLADESH: MAPPING OUT THE CONTEXT FOR IMPLICATIONS AND CHALLENGES

### 1.1 Introduction

The World Trade Organization (WTO) *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS)<sup>1</sup> is set to offer uniform and extensive protection of intellectual property rights (IPRs)<sup>2</sup> to trademarks, patents, copyrights, industrial designs, trade secrets, geographical indications (GIs) and integrated circuit industrial designs. For uniform protection of IPRs, the TRIPS defines certain basic standards of IPRs protection and makes it binding for all WTO member countries, irrespective of their developmental standing.<sup>3</sup> In order to set wider protection for IPRs, the TRIPS broadens the extent and scope of IPRs protection by offering protection to inventions including pharmaceuticals, plant varieties and GIs.<sup>4</sup> It also imposes restrictions on compulsory licensing that allows

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<sup>1</sup> *Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 ILM 1197 [hereinafter TRIPS Agreement].

<sup>2</sup> 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 in order to commercialise the inventions and simultaneously stop others from doing so unless rents are paid on licensing; for details, see M Rafiqul Islam, *International Trade Law of the WTO* (2006) 379–380.

<sup>3</sup> TRIPS Agreement Article 1(1) reads: Members shall give effect to the provisions of this Agreement. Members may, but shall not be obliged to, implement in their laws more extensive protection than is required by this Agreement, provided that such protection does not contravene the provisions of this Agreement.

<sup>4</sup> TRIPS Agreement Part II.

manufacturing a patented product without the patent owner's consent and delimits existing IPRs protection flexibilities, including parallel importation of a patented product from another cheaper source or experimental uses of inventions before the expiration of the patent.<sup>5</sup> The TRIPS containing such protection standard-setting of IPRs is adopted as one of the Marrakesh Agreements establishing the WTO and liberalising the global trade from protectionist state regulations prevailing in the pre-TRIPS regime. To reap the fruits of trade liberalisation, a strict enforcement and dispute settlement mechanism is also provided in the WTO Agreements and is shared by all Agreements, including the TRIPS.

The standard-setting, especially the uniform and extensive protection of IPRs, serves IPRs-owning interests in line with IPRs protection theories, i.e. reward follows creation and compensation needs to be paid until and unless full value of creation is optimised.<sup>6</sup> It brings in trade benefits of IPRs products to IPRs-owning developed countries by securing rent payments therein.<sup>7</sup> The TRIPS restriction on flexibility clauses that meet emergencies or extraordinary circumstances also ensures the remuneration of IPRs owners.<sup>8</sup> Further, the TRIPS formulation of minimum standards in IPRs protection gives the IPRs-owning developed countries leeway to go for the TRIPS-plus agreements.<sup>9</sup> Such agreements tend to further prolong the rent payments by lessening the special and differential treatment,<sup>10</sup>

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<sup>5</sup> TRIPS Agreement Articles 31, 30, 39 and 6; 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 and Development* (2002) 47.

<sup>6</sup> See William Fisher, 'Theories of Intellectual Property' <<http://cyber.law.harvard.edu/people/tfisher/iptheory.pdf>> 20 July 2009; see also Michael J Trebilcock and Robert Howse, *The Regulation of International Trade* (2005) 396–400.

<sup>7</sup> Jagdish Bhagwati, 'From Seattle to Hong Kong' (December 2005: WTO Special Edition) 84(7) *Foreign Affairs* 2, 2–12.

<sup>8</sup> Peter K Yu, 'The Objectives and Principles of the TRIPS Agreement' (2009) 46 *Houston Law Review* 979, 1015; Bryan C Mercurio, 'TRIPS, Patents, and Access to Life-Saving Drugs in the Developing World' (2004) 8(2) *Marquette Intellectual Property Law Review* 211, 217–222.

<sup>9</sup> United Nations Conference on Trade and Development, 'Intellectual Property in the World Trade Organization: Turning it into Developing Countries' Real Property' (UNCTAD Series on Assuring Development Gains from the International Trading System and Trade Negotiations, United Nations, New York and Geneva, 2010) [hereinafter UNCTAD].

<sup>10</sup> 'Special and differential treatment' is based on the premise that developing countries are inherently disadvantaged in their participation in international trade

including the extended compliance deadline of 1 July 2013 and 1 January 2016 (patenting of pharmaceuticals) that typically considers the economic standing of least developed countries (LDCs).<sup>11</sup>

It is alleged that such TRIPS protection mandate is a 'one-size-fits-all' approach and is taken as a whole from a small group of IPRs-owning countries.<sup>12</sup> This allegation seems to be well-founded, since such standard-setting already exists in developed countries and undervalues hundreds of developing countries and LDCs that have different welfare needs often called as development needs and their diverse means of fulfilment.<sup>13</sup> This

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and none of the GATT provisions legally binds developed countries to undertake actions in favour of developing countries. For this reason, the GATT Contracting Parties has agreed in 1979 to establish an Enabling Clause for the GATT with the mandate to ensure the participation of developing countries in international trade. This agreement did not amend the text of the GATT, but as a decision by the GATT Contracting Parties it had an essentially equivalent legal effect. With this clause, in principle, developing countries should be subject to somewhat different rules and disciplines in international trade than those that apply to developed countries; and that the latter will implement their obligations under the GATT and WTO in ways that would be favourable to development. The WTO agreements that ended the Uruguay Round are consistent with this principle of special and differential treatment since they contain numerous provisions in favour of developing countries; see details Constantine Michalopoulos, 'Special and Differential Treatment of Developing Countries in TRIPS' [TRIPS Issue Papers 2, Quaker United Nations Office (QUNO), Geneva, 2003].

<sup>11</sup> See Decision of the Council for TRIPS of 29 November 2005, IP/C/40 ('Extension of the Transition Period under Article 66.2 for Least-Developed Country Members'); and paragraph 7 of the Declaration on the TRIPS Agreement and Public Health, WT/MIN(01)/DEC/W/2 [hereinafter TRIPS Council].

<sup>12</sup> 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* (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 Intellectual Property Rights, London, September 2002) 35 [hereinafter UK Commission].

<sup>13</sup> Peter K Yu, 'The International Enclosure Movement' (2007) 82 *Indiana Law Journal* 827, 828.

undervaluation gives rise to implications and challenges for development needs usually pertaining to agriculture, public health and economic development and the fulfilling of means, which is mainly the free use of technology, i.e. IPRs appropriation.<sup>14</sup> This is because those TRIPS measures that protect IPRs owners' interests are protectionist and lead to trade protectionism. Here the protectionism measures operate at the cost of restricting the free use of technology for developing countries and LDCs and obstruct their trade in goods reverse-engineered<sup>15</sup> by way of adding value and reshaping.<sup>16</sup> In fact, the free use of technology in reverse-engineering helps developing countries and LDCs in adding value and shaping existing products.<sup>17</sup> Such use also proves to be comparatively advantageous for most of them in fulfilment of their developmental needs, particularly in agriculture, public health and economic development.<sup>18</sup> However, in the name of uniform and extended protection of IPRs, the TRIPS restricts the free use of technology for protectionist purposes.<sup>19</sup> This protectionist standard-setting contradicts with the WTO's trade

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<sup>14</sup> Kamil Idris and Hisamitsu Arai, 'The Intellectual Property-Conscious Nation: Mapping the Path from Developing to Developed' (WIPO Publication No. 988, World Intellectual Property Organization, Geneva, Switzerland, 2006) <[http://www.wipo.int/about-wipo/en/dgo/wipo\\_pub\\_988/](http://www.wipo.int/about-wipo/en/dgo/wipo_pub_988/)> 10 January 2011.

<sup>15</sup> 'Reverse engineering' is taken to mean adding value and shaping the existing the product. See Pamela Samuelson and Suzanne Scotchmer, 'The Law and Economics of Reverse Engineering' (2002) 111 *Yale Law Journal* 1575.

<sup>16</sup> Martin Khor, 'Responding to the Globalisation Challenge: A Perspective from the South' [Eleventh Meeting of the Intergovernmental Follow-up and Coordination Committee on Economic Cooperation among Developing Countries (IFCC-XI) Havana, Cuba, 21-23 March 2005]

<<http://www.g77.org/ifcc11/docs/doc-12-ifcc11.pdf>> 10 January 2011; Rokiah Alavi, 'Trade Protectionism under the WTO: The Impact on Muslim Countries' (2002) 23(4) *Journal of Economic Cooperation* 1, 22-27.

<sup>17</sup> UNCTAD, 'Integration of Developing Countries in Global Supply Chains, Including through Adding Value to Their Exports' (Item 5 of the Provisional Agenda, Trade and Development Board, Trade and Development Commission, Third Session, Geneva, 6-10 June 2011)

<[http://www.unctad.org/en/docs/cid16\\_en.pdf](http://www.unctad.org/en/docs/cid16_en.pdf)> 10 January 2011.

<sup>18</sup> Philippe Cullet and Patricia Kameri-Mbote, 'International Property Protection and Sustainable Development: Towards a Common African Institutional Framework and Strategy' [Background Study Paper for NEPAD's Steering Committee for Science and Technology, International Environmental Law Research Centre (IELRC) and New Partnership for Africa's Development (NEPAD), 19 January 2005]

<[http://www.nepadst.org/doclibrary/pdfs/doc23\\_022005.pdf](http://www.nepadst.org/doclibrary/pdfs/doc23_022005.pdf)> 10 January 2011.

<sup>19</sup> Jagdish Bhagwati, above n 7, 2-12.

liberalising agenda of freeing trade from state regulations and reaping benefits from it.<sup>20</sup>

Additionally, the protectionism inherent in the provision of security for rent payments restricts the free trade principle of comparative advantage in 'getting trade benefits out of individual advantages'.<sup>21</sup> Indeed, most developing countries and LDCs possess the individual infrastructures necessary for reverse-engineering and utilise the free trade principle of comparative advantage for individual gains from it.<sup>22</sup> However, the restriction of the free trade principle of comparative advantage results in the establishment of a monopoly of IPRs owners in the manufacture, supply and pricing of IPRs products. In the end, the monopolisation of IPRs obstructs developing countries and LDCs in the fulfilment of their developmental needs.<sup>23</sup>

As a signatory to the TRIPS, Bangladesh uses its LDC status for meeting the compliance deadline. However, it is pre-loaded with certain IPRs laws, including the *Patents and Designs Act, 1911* (Patents and Designs Act),<sup>24</sup> the *Trade Marks Act, 2009* (Trade Marks Act)<sup>25</sup> and the *Copyright Act, 2000* (Copyright Act)<sup>26</sup> as amended in 2005.<sup>27</sup> Almost all

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<sup>20</sup> Ibid. In spite of his great active role in liberalising trade under the World Trade Organization (WTO), Jagdish Bhagwati is of the view that the TRIPS legitimates rent seeking behaviour and perpetuates monopoly, and these aspects are inconsistent with the principle of free trade.

<sup>21</sup> Trebilcock and Howse, above n 6, 335-366.

<sup>22</sup> UNCTAD, 'Policies and Programmes for Technology Development and Mastery, Including the Role of FDI' (Issues Paper, Commission on Enterprise, Business Facilitation and Development, Expert Meeting on Policies and Programmes for Technology Development and Mastery, Including the Role of FDI, Geneva, 16-18 July 2003)

<[http://www.unctad.org/en/docs/c3em18\\_en.pdf](http://www.unctad.org/en/docs/c3em18_en.pdf)> 10 January 2011.

<sup>23</sup> See Josef Drexler, 'The Relationship between the Legal Exclusivity and Economic Market Power: Links and Limits' in Inge Govaere and Hans Ullrich (eds), *Intellectual Property Market Power and the Public Interest* (2008) 16-18.

<sup>24</sup> *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*].

<sup>25</sup> *Trademarks Act, 2009* (ACT NO. XIX of 2009) *Bangladesh Gazette Extra* published 31 August 2010

<[http://www.wipo.int/wipolex/en/text.jsp?file\\_id=197266](http://www.wipo.int/wipolex/en/text.jsp?file_id=197266)> 10 December 210 (hereinafter *Trade Marks Act*).

<sup>26</sup> *Copyright Act, 2000* (ACT NO. XXVIII of 2000) *Bangladesh Gazette Extra* 18 July 2000 (hereinafter *Copyright Act*); *Copyright (Amendment) Act, 2005* (ACT NO. XIV of 2005) *Bangladesh Gazette Extra* 18 May 2005.

of them are taken to serve the trade liberalising 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.<sup>28</sup> With the use of the broad definition for patentable invention, patenting of pharmaceuticals or plants or plant varieties is also possible. However, to meet extraordinary circumstances including emergencies and insufficiency of supply, the IPRs laws contain some exception clauses including compulsory licensing and fair use.<sup>29</sup> In addition, the LDC status entitles the country to the special and differential flexibility in order to deny patent protection to pharmaceuticals or copy IPRs protected products during the transitional period.<sup>30</sup>

It is clear that in order to fulfil the developmental needs of domestic consumption and to furnish the necessary trade, especially in agriculture and public health, Bangladesh appropriates products that are innovated and reverse-engineered.<sup>31</sup> However, since the country has LDC status and with one-third of its population living below the poverty line, Bangladesh can rarely afford the cost of research and development (R&D) for innovations. Alternatively, it depends upon reverse-engineering, for which it possesses the necessary infrastructures. This reverse-engineering in agricultural products for livelihoods and pharmaceutical products for health necessitates the addition of value and the shaping of other countries' innovations, which are protected by IPRs.<sup>32</sup> This practice of adding value is generally carried out in the country by means of imitation and adaptation on accessing technology through IPRs appropriation or sometimes in the way of licensing or foreign direct investment (FDI).<sup>33</sup>

In this way, the reverse-engineering fulfils the developmental interests of Bangladesh mostly through IPRs appropriation. Such reverse-engineering of foreign patented products and technology transfer are also taken into account in aiding the country to promote its economic

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<sup>27</sup> The pre-loading occurs due to the process of colonisation. See Peter Drahos, *The Global Governance of Knowledge: Patent Offices and Their Clients* (2010) 2.

<sup>28</sup> For example, Patents and Designs Act Section 2(8). It defines 'invention' as any manner of new manufacture and includes an improvement and an alleged invention.

<sup>29</sup> For example, Patents and Designs Act Section 22.

<sup>30</sup> TRIPS Council, above n 11.

<sup>31</sup> UNCTAD, 'The Least Developed Countries Report 2007: Knowledge, Technological Learning and Innovation for Development' (prepared by the UNCTAD Secretariat, Geneva, 2007) 125–126.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.



development. However, the membership commitment of Bangladesh regarding trade protectionism and monopolistic ownership, as inserted in the TRIPS, restricts it from the IPRs-appropriating advantages of imitation and adaptation of existing knowledge products. Further, the transitional arrangement for excluding pharmaceuticals from patenting or copying IPRs-protected products and supplying them at home and abroad during the transitional period does not have a place in the local legislation. Thus, the TRIPS mandated trade protectionism and monopolistic ownership conjoined with the insufficiency of local laws brings in implications and challenges for Bangladesh in meeting those developmental needs that are most dependent on IPRs-appropriation.<sup>34</sup>

## **1.2 The Research Questions**

The preceding background leads to the following research questions:

(1) What implications and challenges are posed by the TRIPS one-size-fits-all approach to the fulfilment of the developmental needs of an LDC such as Bangladesh in the fields of agriculture, public health and economic development? (2) What are the factors and elements responsible for such implications and challenges? (3) How do the relevant IPRs laws and regulations of LDCs like Bangladesh tend to face such implications and challenges?

## **1.3 Mapping a Baseline in Determining the TRIPS Implications and Challenges**

In answering the research questions, this study finds it necessary to defend and discard the TRIPS protection of IPRs in terms of some of the core features of neo-liberalism upon which the WTO's trade liberalisation is based. The intention here is to show that in the name of liberalising trade and benefiting countries in trade, the TRIPS contains re-regulating features for uniform protection standard-setting. This, however, results in monopolisation of IPRs or restricts the comparative advantage in reverse-engineering for adding value and shaping the existing the product and brings in implications and challenges to meet the survival needs based on free use of IPRs goods. Such defence and discarding helps to establish a baseline for determining the TRIPS implications and challenges for LDCs like Bangladesh. In addition, in order to institute the baseline, the TRIPS is compared and contrasted with IPRs protection theories and the former is

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<sup>34</sup> Ibid.

found to be more useful for the purposes of this study. This comparison shows that protection theories support the securing of investment in IPRs products. However, protection without competition standard-setting, as the comparison goes, gives rise to protectionism and therefore monopolisation and affects the trade liberalising principle of comparative advantage. This comparison exercise has been taken as a parameter in determining the TRIPS implications and challenges for Bangladesh.

### **1.3.1 TRIPS Agreement and Neo-liberalism Theory: Implications and Challenges**

The TRIPS is set to serve the WTO's trade liberalising agenda, which makes every part of trade facilities open to all. This free trade agenda of the WTO is said to have based on neo-liberalism theory since it follows neo-liberalism features that include privatisation, marketisation, deregulation and re-regulation.<sup>35</sup> It relies on the neo-liberalism feature that assigns previously state-owned, un-owned or communally owned property rights to individual or corporate persons.<sup>36</sup> It also assigns prices to phenomena that were previously shielded from market exchange for various reasons.<sup>37</sup> It pushes for the rollback of state intervention in numerous areas of social life so that state regulation is minimised and increasing numbers of actors become self-regulating within centrally determined frameworks and rules.<sup>38</sup> In order to facilitate privatisation and marketisation of ever-wider spheres of social life, it insists on the deployment of state regulations or policies.<sup>39</sup> The TRIPS emerges within such trade-liberalising auspices of the WTO.

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<sup>35</sup> David Harvey, 'Neoliberalism as Creative Destruction' (2006) 88(2) *Geografiska Annaler: Series B, Human Geography* 145; see also Jim MacGuigan, 'Neo-Liberalism, Culture and Policy' (2005) 11(3) *International Journal of Culture and Policy* 229.

<sup>36</sup> David Harvey, *A Brief History of Neoliberalism* (2005) 152–182; John Braithwaite, 'Neoliberalism or Regulatory Capitalism' (Occasional Paper 5, Australian National University, October 2005).

<sup>37</sup> Noel Castree, 'Neoliberalising Nature: The Logics of Deregulation and Re-regulation' (2008) 40(1) *Environment and Planning A* 131.

<sup>38</sup> Ha-Joon Chang, 'Breaking the Mould: An Institutionalist Political Economy Alternative to the Neoliberal Theory of the Market and the State' (Social Policy and Development Programme Paper 6, United Nations Research Institute for Social Development, May 2001).

<sup>39</sup> Ibid.

The TRIPS follows the trade liberalising features of the WTO in response to the criticism levelled against the IPRs protection regime, which commenced in the 19<sup>th</sup> century. This regime is managed by the World Intellectual Property Organization (WIPO) with the help of the *Paris Convention for the Protection of Industrial Property 1883* (Paris Convention)<sup>40</sup> and the *Berne Convention for the Protection of Literary and Artistic Works 1886* (Berne Convention).<sup>41</sup> The regime witnesses increasing competition in manufactured exports of IPRs products from newly industrialised countries (NICs) in the 1980s and 1990s. It faces developed countries' complaints regarding various state regulations prevailing in developing countries and LDCs, which hold trade protectionism with shorter periods of IPRs protection, random compulsory licensing or inadequate protection resulting in loss of rents for IPRs.<sup>42</sup> However, it fails to find a sustainable solution in these situations of trade protectionism. As a consequence, developed countries prefer forum shifting for IPRs protection by placing IPRs issues in the *General Agreement on Trade and Tariff* (GATT)<sup>43</sup> that already initiates the free trade regime but contains trade protectionism measures discouraging IPRs appropriation.<sup>44</sup> Subsequently, the Uruguay Round of GATT negotiations led to trade-liberalisation in the WTO and the TRIPS.

Although it is in the WTO's patronage, the TRIPS incorporates the trade-liberalising features of the WTO, since it translates IPRs into trade-related IPRs to commercialise the inventions; it recognises IPRs as private rights and denounces its affiliation with the public domain.<sup>45</sup> It re-regulates the protection of IPRs with the help of centrally administered authorities and rules.<sup>46</sup> The TRIPS also upholds the WTO's aim to liberalise trade by

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<sup>40</sup> *Paris Convention for the Protection of Industrial Property 1883*, signed 20 March 1883, 828 UNTS 305 [hereinafter Paris Convention].

<sup>41</sup> *Berne Convention for the Protection of Literary and Artistic Works 1886*, signed 9 September 1886, 828 UNTS 221 [hereinafter Berne Convention].

<sup>42</sup> Trebilcock and Howse, above n 6, 396–400.

<sup>43</sup> *General Agreement on Tariffs and Trade*, signed 30 October 1947 (entered into force 1 January 1948) 58 RTNU 187 [hereinafter GATT].

<sup>44</sup> Carlos M Correa, 'Globalisation and Intellectual Property Rights' in Shawkat Alam, Natalie Klein and Juliette Overland (eds), *Globalisation and the Quest for Social and Environmental Justice: The Relevance of International Law in an Evolving World Order* (2011) 155.

<sup>45</sup> Islam, above n 2, 380.

<sup>46</sup> Katia Segers and Ellen Huijgh, 'Clarifying the Complexity and Ambivalence of Cultural Industries' (Working Paper 2006–02, Re-Creatief Vlaanderen, Gent, Belgium). They note that the formalised procedures, such as new licensing rules or mechanisms of control, are instances of re-regulation.

inserting most favoured nation (MFN) and national treatment principles as incorporated in Articles I and III of the GATT. The MFN principle requires members to give equal advantage to all nationals irrespective of membership.<sup>47</sup> The national treatment principle component of the TRIPS requires member countries to give the same rights to works originating from other member countries as they give to the works of their nationals.<sup>48</sup> The TRIPS also breaks the shackles of protectionist regulations involving state interference through unfettered compulsory licensing, shortening the period of IPRs protection and narrowing the defined protection or addressing the lack of state vigilance regarding enforcement. In order to liberalise trade, it also inserts provisions on preventing the exploitation of IPRs by right-holders through resorting to practices that unreasonably distort trade or adversely affect the international diffusion of technology.<sup>49</sup> Thus, theoretically, the TRIPS features concur with the WTO's neo-liberalising approach of freeing the trade of IPRs goods.

However, those TRIPS features that endorse the re-regulating practices of broadening IPRs protection and streamlining compulsory licensing appear to result in protectionism.<sup>50</sup> This is because all the TRIPS features warrant privatisation of IPRs and engender monopolisation in establishing the control of IPRs owners therein. The identical features of dictating uniform and mandatory protection standard-setting, as laid down in the TRIPS, also result in restricting the comparative advantage of reverse-engineering and lead to monopolisation.<sup>51</sup> Such monopolisation of IPRs goods and restriction on comparative advantages in reverse-engineering bring in IPRs owners' exclusivity over the manufacturing, supply and pricing of products. The monopolisation of IPRs in the owners' hand, together with the restriction of comparative advantages leads to trade protectionism and appears to clash with the free trade principle of the WTO.

In Bangladesh, the currently enforceable IPRs laws already appear to carry out the task of trade liberalisation. This is because the laws pledge to facilitate free trade for all members by incorporating the MFN and the national treatment principles. For example, in order to bring free trade with the national treatment principle into effect, Section 3 of the Patents and Designs Act offers patent protection to an invention irrespective of its

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<sup>47</sup> TRIPS Agreement Article 3.

<sup>48</sup> Ibid. Article 5.

<sup>49</sup> Ibid. Article 8.

<sup>50</sup> Khor, above n 16; Alavi, above n 16, 22-27.

<sup>51</sup> Josef Drexler, above n 23, 16-18.

country of origin.<sup>52</sup> Giving equal trade advantages to all regardless of citizenship in view of the MFN is also a general principle adopted in IPRs laws in Bangladesh.<sup>53</sup> In addition, most other defining IPRs provisions specify the mode of protection and sanction for IPRs infringement, and are set to facilitate trade, encourage inventions and promote economic development. However, this situation hardly inspires inventions among Bangladeshi people; neither does it encourage the development and exploitation of new inventions. The laws are unable to nurture FDI and technology transfer in order to initiate economic development, nor to ensure fulfilment of developmental needs.<sup>54</sup> Such circumstances lead to the suggestions that currently enforceable IPRs laws are either protectionist and contain monopolising features that clash with the free trade principle of the WTO, or they are underdeveloped and thus unfit to take on the fruits of the free trade.

### **1.3.2 IPRs Protection: Justificatory Theory and Monopolisation**

From the perspectives of those innovators based in developed countries, the extended reach and length of IPRs protection as set in the TRIPS receives support from the Lockean compensatory justice argument 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.<sup>55</sup> It also follows the economic argument that if an invention or creation is not compensated at its full social value, there will be suboptimal incentives to carry it out. In other words, in the case of free-riding for an invention where significant economic returns arise at little or no cost, an individual or firm may hesitate to make an investment.<sup>56</sup> In fact, IPRs are often instilled on public goods that are found in nature and are trivially

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<sup>52</sup> Patents and Designs Act Section 3(1): 'An application for a patent may be made by any person whether he is a citizen of Bangladesh or not, and whether alone or jointly with any other person'.

<sup>53</sup> For example, Patents and Designs Act Section 29(1): 'A patentee whether he is a citizen of Bangladesh or not may enforce his patent in respect of an invention by instituting a suit for making, selling or using the invention without his license, or for counterfeiting, or imitating'. See also Copyright Act Section 69. This empowers the government to offer protection to works copyrighted in foreign countries.

<sup>54</sup> UNCTAD, above n 31, 125–126.

<sup>55</sup> Trebilcock and Howse, above n 6, 398–399.

<sup>56</sup> Ibid.

modified; such instillation prevents free-riding and helps compensating the costs of modification-cum-invention.

However, this economic argument does not apply in the case of developing countries and LDCs suffering from poverty, without the means to afford the cost of modification, much less R&D for invention. As a result, they depend largely on easily accessible natural resources or public goods for meeting their survival needs. However, the extended reach and length of IPRs protection, as provided in the TRIPS, re-establishes the recognition and protection of natural resources as private rights in line with the economic argument, since some modifications therein enable them to qualify as IPRs goods.<sup>57</sup> To confer control of public goods in private owners' monopoly in this way amounts to monopolisation, as opposed to the free trade philosophy of neo-liberalism. By introducing patents for products or processes, the TRIPS also prevents members from producing the same product using different processes and restricts competition among manufacturers of products. This trend helps multinational companies (MNCs) to monopolise the price and supply of products.<sup>58</sup> In addition, the extended reach and length of IPRs protection forces manufacturers to wait longer before producing the generics of the IPRs protected products and supply them to the market.<sup>59</sup> This process also endorses monopolisation in the hands of certain inventors or creating firms, which creates problems for IPRs-using developing countries and LDCs.

In Bangladesh, the existing laws in relation to IPRs are in line with the Lockean compensatory justice argument, since all innovative works are under IPRs protection in order to compensate the creator. For example, Section 2(8) read with Section 2(11) of the Patents and Designs Act

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<sup>57</sup> Vandana Shiva, 'TRIPS Agreement: From the Commons to Corporate Patents on Life' in Jerry Mander and Victoria Tauli-Corpuz (eds), *Paradigm Wars: Indigenous People's Resistance to Globalisation* (2006) 81.

<sup>58</sup> Sumanjeet Singh, 'Intellectual Property Rights and Their Interface with Competition Policy: In Balance or in Conflict?' (CPRsouth5, Communication Policy Research South Conference, Xi'an, China, 12 December 2010)

<<http://ssrn.com/abstract=1724463>> 10 January 2011; Bernard M Hoekman, Keith E Maskus and Kamal Saggi, 'Transfer of Technology to Developing Countries: Unilateral and Multilateral Policy Options' (Working Paper Pec2004-0003, Research Program on Political and Economic Change, Institute of Behavioural Science, University of Colorado at Boulder, May 2004)

<<http://www.colorado.edu/ibs/pubs/pec/pec2004-0003.pdf>> 10 January 2011.

<sup>59</sup> For example, Article 33 of the TRIPS Agreement sets 20 years as the minimum duration for patent whereas the Paris Convention does not fix it.