Trade Facilitation through Border Enforcement of Intellectual Property Rights: Issues, Concerns and Possible Remedies

SYED SAIFUDDIN HOSSAIN

Master of International Customs Law and Administration
University of Canberra, Australia

MSS in International Relations
University of Dhaka, Bangladesh

BSS (Honours) in International Relations
University of Dhaka, Bangladesh

This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

Macquarie Law School
Macquarie University
Sydney, Australia

February 2016

TABLE OF CONTENTS

ABSTRACT

In the present era of rapid globalisation, countries are intrinsically integrated with each other by way of international trade to ensure optimal utilisation of their resources. Trade facilitation is now recognised as a key driving factor in determining export competitiveness of a country. Customs administrations, the frontier border agency responsible for regulating import and export of legitimate goods, are increasingly faced with the challenge of intellectual property rights (IPR) infringement. In addition to national governments, various international organisations have devised guidelines and tools to facilitate and empower Customs agencies in their fight against IPR infringement. In particular, the multilateral *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPS) of the World Trade Organization (WTO) articulates a prescription for border enforcement of IPRs in Articles 51-60.

In this backdrop, this thesis attempts to answer a very fundamental question: What are the implications of 'Border Measures', specified under the WTO TRIPS Agreement, for facilitating international trade? To this end, it critically examines the concepts of trade facilitation, TRIPS and IPR protection to highlight the links that connect them and the missing links that need to be established. Obligations to protect IPR under national and international laws are also scrutinised. Research shows that efforts by WTO, World Customs Organization (WCO) and World Intellectual Property Organization (WIPO) have been instrumental in this context. While policy planning at the national level should be the first priority, commitment by the advanced economies to support their less developed counterparts through technology transfer (TT) is of paramount importance. The thesis suggests that TRIPS-plus provisions, if implemented arbitrarily by developed countries, have the potential to undermine the interests of countries with resource constraints. In this context, the thesis analyses the effects and implications of the *Trans-Pacific Partnership* (TPP) and the *Trans-Atlantic Trade and Investment Partnership* (TTIP) agreements, and the *Revised Kyoto Convention* (RKC) for the border protection of IPRs.

The thesis investigates the socio-economic impacts of IPR infringement and articulates strategies to be adopted and applied at individual, collective, business and government levels to stop trade and use of IPR infringed goods. Drawing on the analysis of the relevant

WTO Articles, scrutiny of various border measures put in place by national governments and international bodies, and current state of play under the Doha Development Round (DDR), the thesis puts forward a set of short and long term policy recommendations for all relevant stakeholders. These inclusively include: (i) strengthening risk management procedures; (ii) cooperation and coordination at national and international levels; (iii) awareness raising initiatives; (iv) establishing advanced technologically driven border enforcement system; (v) empowering Customs with effective administrative authority; (vi) IP related technical capacity building within the Customs and business community; (vii) technology transfer to LDCs from developed countries; and (viii) LDC friendly dispute settlement process under the WTO.

DECLARATION

I certify that the thesis titled *Trade Facilitation through Border Enforcement of Intellectual Property Rights: Issues, Concerns and Possible Remedies* is an original work by me and has not been submitted for fulfilling requirement for a degree at any other university or institution other than Macquarie University.

I also certify that any assistance received during the preparation of this work and all the sources of information used in the research have been duly acknowledged in the thesis.

Syed Saifuddin Hossain
Student # 41359577

5 February 2016

ACKNOWLEDGEMENT

The much anticipated journey towards the completion of my thesis has been supported and guided by so many individuals and institutions that it is impossible for me to name each of them to thank and pay tribute to. Hence, I start by apologising to those whom I could not mention here.

I am unreservedly grateful to my principal supervisor *Professor M Rafiqul Islam,* for his unconditional support and guidance from the beginning to the end of my doctoral studies. No word of thanks and gratitude will ever be enough to express my indebtness to him. He never ceased to amaze me with his depth and width of his knowledge and quality of supervision. I am also highly indebted to my associate supervisor, *Dr Niloufer Selvadurai*, who had been lot more than just an academic advisor to me. Her guidance as my acting principal supervisor, while Professor Rafiqul Islam was on leave in 2013, was instrumental in enabling me to create and sustain a strong foundation of my thesis. I thank both these exceptional persons also for believing in me and giving me the opportunity to work as a Sessional Academic for the Law units convened by them. This meant a lot to me both on academic and personal fronts.

I extend my sincere gratitude to *Dr Shawkat Alam* who encouraged me to apply for the doctoral programme at Macquarie Law School. He has been utterly supportive throughout my PhD journey by way of providing academic and professional advices. Thanks are also due to *Professor Brian Opeskin* and *Dr Carlos Bernal-Pulido* for simplifying to us the rigorous and complex nature of preparatory and methodological aspects of PhD thesis. I am also thankful to *Professor Natalie Klein* for her kind advice and support at a time when I needed them most. My sincere thanks go to *Dr Khorseduzzaman*, Lecturer, Department of Accounting and Corporate Governance, Macquarie University, for being a wonderful friend and mentor. I will be at fault if I fail to thank *Debbie Loo* and *Eleanor McGhee* of Macquarie Law School for tirelessly providing all administrative and support services from beginning to end of my higher degree research studentship.

I am highly indebted to *Professor Mustrafizur Rahman*, Executive Director, Centre for Policy Dialogue (CPD), Bangladesh who had been my mentor and supervisor for most part of my research career. I am also grateful to my CPD colleagues including *Professor Rehman Sobhan*, Chairman; *Dr Debapriya Bhattacharya*, Distinguished Fellow; *Dr Fahmida Khatun*, Research Director; *M Shafiqul Islam*, Additional Director (Admin & Finance); *Towfiqul Islam Khan*, Research Fellow; *AHM Ashrafuzzaman*, Deputy Director (System Analyst); and *Humayn Kabir*, Deputy Director (Administration) for their guidance, support, advice and encouragement in my endeavour towards pursuing PhD. On a similar note, I also thank my former CPD colleagues *Dr Ananya Raihan*, *Syeed Ahamed*, *Kazi Mahmudur Rahman*, *Md Ashiq Iqbal* and *Ashiqun Nabi*.

I started my PhD at Macquarie University as a recipient of the prestigious Endeavour Postgraduate Awards (EPA). I remain grateful to the *Commonwealth of Australia* for believing in my qualifications and awarding me the highly competitive scholarship.

I consider myself very blessed to have met and mingled with a number of extraordinary people during my PhD candidature. These wonderful people selflessly extended their support to me and my family at every point of this long journey. I thank the following individuals from the bottom of my heart: *Amit Dewan* and *Sabiha Dewan*; *Romi Hadi*, *Zereen Pammy* and their lovely daughters *Woaliba* and *Alishba*; *Russell Tanvir Chowdhury*, *Shahala Khan* and their gorgeous princess *Tasin*; *Dr Nakib Nasrullah* and *Mrs. Amena Nasrulah*; *Dr Mostafa Mahmud Naser* and *Dr Tanzim*; *Dr Mosfata Al Masum*; and *Dr Shah Md. Eahteshamul Hoque*. I am extremely grateful and indebted to *Shumon bhai*, *Tithi* and their lovely daughters *Namira* and *Nazeefa* for their unconditional support and friendship to every member of my family.

I express my sincere gratitude to my father-in-law *Abdur Rouf* for his continuous encouragement throughout my PhD journey. Thanks are also due to my mother-in-law *Gul-E-Nahar*, daughters-in-law *Mahbuba Akhter* (and her husband Mohammad Faruq) and *Arifah* (and her husband *Shuvo*), and brothers-in-law *Abdullah* (and his wife *Tamanna*) and *Ahmed*.

Had it not been for my elder brother *Syed Nayeemuddin Hossain*, I would not have been able to finish my doctoral journey. For some reason, he believes in me more than I do. His

wife *Hazera Khatun* and their children *Radi* and *Adnan* have always been a source of inspiration and support to me. I also thank my eldest brother *Syed Quamruddin Hossain*, his wife *Kawamura Aki* and their children *Arman* and *Ayman* for their kind support and encouragements. I am immensely thankful to my lovely sister *Rabeya Begum (Jhumu)* for being a wonderful support at a time when I needed it most.

The one person whom I will never be able to thank enough is my wife *Mahmuda*. She successfully managed to deal with all the unforeseen events of life to ensure that I had the best environment to complete my studies. Our daughter *Sumaiya*, and sons *Ayan* and *Ashaz* have always kept our lives meaningful and busy. I strongly hope that I will be able to spend some more time with my wonderful family after submitting my thesis.

Finally, I dedicate this thesis to my parents who never stopped believing in me. My father, *Syed Shamsuddin Hossain*, who passed away in 2009 had a strange positive faith in me. I never had the opportunity to ask him what that was or thank him for that. Perhaps this small dedication will bring some relief to me. My mother *Hasina Hossain* has always supported me in my rights and corrected my wrongs, and provided me the best even at worst times. No word can express my debt and gratefulness to both my parents. Still I dare to say *Thank You!*

Syed Saifuddin Hossain
5 February 2016

LIST OF ABBREVIATIONS

A4T	Aid for Trade
AB	Appellate Body
ACIS	Advance Cargo Information System
ACTA	Anti-Counterfeiting Trade Agreement
AEO	Authorised Economic Operator
AIC	Administration for Industry & Commerce
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South-East Asian Nations
ASYCUDA	Automated System of Customs Data
BASCAP	Business Alliance to Stop Counterfeiting and Piracy
BPA	Business Process Analysis
C&P	Counterfeit and pirated
CBP	Customs and Border Protection
CCC	Customs Cooperation Council
CD	Compact Disk
CEN	Customs Enforcement Network
CEO	Chief Executive Officer of Customs
CRM	Customs Reform and Modernisation
CTG	Council for Trade in Goods
DDR	Doha Development Round
DSB	Dispute Settlement Body
DSU	Dispute Settlement Understanding
DVD	Digital Versatile Disk
EC	European Commission
ECO	European Commission's Office
ECOWAS	Economic Community of Western African States
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
ESCAP	Economic and Social Commission for Asia and the Pacific
ESTs	Environmentally Sound Technologies

EU	European Union
FCA	Federal Customs Administration
FDI	Foreign Direct Investment
FTAA	Free Trade Area of the Americas
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariff and Trade
HINT	Heads of Intelligence
HS	Harmonised System
ICESCR	International Covenant Economic, Social and Cultural Rights
ICT	Information and Communication Technology
IP	Intellectual Property
IPR	Intellectual Property Right
IPRs	Intellectual Property Rights
IPRTA	Technical Assistance for IPR
ISO	International Standards Organisation
IT	Information Technology
KC	Kyoto Convention
KIPO	Korean Industrial Property Office
LAN	Local Area Network
LDC	Least Developed Country
LDCs	Least Developed Countries
MDTCA	Ministry of Domestic Trade & Consumer Affairs
MFN	Most Favoured Nation
MNCs	Multi-national Corporations
MoU	Memorandum of Understanding
NAFTA	North American Free Trade Agreement
NAMA	Non Agricultural Market Access
NGOs	Non-Government Organisations
NoO	Notice of Objection
NT	National Treatment
NTBs	Non-Tariff Barriers
NZCS	New Zealand Customs Services
OECD	Organization for Economic Co-operation and Development

PPP	Public Private Partnership
PRC	People's Republic of China
PSI	Pre-Shipment Inspection
QBPC	Quality Brands Protection Committee
R&D	Research and Development
RFID	Radio Frequency Identification
RKC	Revised Kyoto Convention
RLF	Royalty and License Fee
S&DT	Special and Differential Treatment
SAFE	WCO Framework of Standards to secure and facilitate global trade
SAR	Special Administrative Region
SECURE	Provisional Standards Employed by Customs for Uniform Rights Enforcement
SMEs	Small and Medium Sized Enterprises
TACB	Technical Assistance and Capacity Building
TBS	Technology Supervision Bureau
TFA	Agreement on Trade Facilitation
TFNG	Trade Facilitation Negotiating Group
TNC	Trade Negotiations Committee
TPP	Agreement on Trans-Pacific Partnership
TRIPS	Trade Related Aspects of Intellectual Property Rights
TRTA	Trade Related Technical Assistance
TT	Technology Transfer
TTIP	Trans-Atlantic Trade and Investment Partnership
TTM	Trade Transaction Modelling
UAE	United Arab Emirates
UK	United Kingdom
UML	Unified Modelling Language
UN	United Nations
UN/CEFAT	United Nations Centre for Trade Facilitation and Electronic Business

UN/ESCWA	United Nations Economic and Social Commission for Western Asia
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNNExT	United Nations Network of Experts for Paperless Trade
US	United States
USA	United States of America
USAID	United States Agency for International Development
USD	Unites States Dollar
UUPC	Unauthorised Use of Protected Content
VAT	Value Added Tax
VCD	Video Compact Disk
VUCE	Costa Rica Single Window for Foreign Trade
WCO	World Customs Organization
WHO	World Health Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

LIST OF INTERNATIONAL INSTRUMENTS

Agreement Concerning the Protection and Enforcement of Intellectual Property Rights between the Government of the United States of America and the Government of Jamaica, 1994

Agreement on Trade Facilitation (TFA), 2013

Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), 1995

Agreement on Trans-Pacific Partnership (TPP), 2015

Anti-Counterfeiting Trade Agreement (ACTA), negotiations completed on 5 October 2015

Arusha Declaration Concerning Integrity in Customs, 1993

Australia-United States Free Trade Agreement (AUSFTA), 2005

Bali Ministerial Declaration of the WTO, 2013

Bali Ministerial Declaration of the WTO, 2013

Berne Convention for the Protection of Literary and Artistic Works, 1886 (effective from 5 December 1887)

Budapest Treaty on the International Recognition of the Deposit of Micro-Organisms for the Purposes of Patent Procedure, 1977 (entered into force on 9 August 1980)

Cancun Ministerial Declaration of the WTO, 2003

Convention establishing the Customs Co-operation Council (CCC), 1948

Convention relating to Distribution of Programme-Carrying Signals Transmitted by Satellite, 1974 (entered into force on 25 August 1979)

Customs Convention on the ATA Carnet for the Temporary Admission of Goods (ATA Convention), 1961

Doha Ministerial Declaration of the WTO, 2001

General Agreement on Tariff and Trade (GATT), 1994

General Agreement on Trade in Services (GATS), 1995

Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs, 1999

Hague Agreement Concerning the International Registration of Industrial Designs, 1925 (effective from 1 June 1928)

International Convention for the Protection of New Varieties of Plants (UPOV), 1961 (amended in 1991)

International Convention on the Simplification and Harmonisation of Customs Procedures (Kyoto Convention), adopted in 1974 and revised in 1999

International Covenant on Economic, Social and Cultural Rights (ICESCR), 1966

Madrid Agreement concerning the International Registration of Marks, 1891 (came into force in 1892)

Marrakesh Agreement Establishing the World Trade Organisation, 1995

Ministerial Declaration of the Uruguay Round, 1986

Model Provisions for National Legislation to Implement Fair and Effective Border Measures Consistent with the Agreement on Trade-Related Aspects of Intellectual Property Rights, 2004

Nairobi Ministerial Declaration of the WTO, 2015

North American Free Trade Agreement (NAFTA), 1994

Paris Convention for the Protection of Industrial Property, 1883 (revised in 1900, 1911, 1925, 1934, 1958 and 1967, and amended in 1979)

Revised Kyoto Convention, entered into force in February 2006

Rome Convention for the Protection of Performers, Producers of phonograms and Broadcasting Organisations, 1961 (effective from 18 May 1964))

Singapore Ministerial Declaration of the WTO, 1996

Strasbourg Agreement Concerning the International Patent Classification, 1971 (came into force on 7 October 1975)

The Anell Draft, 23 July 1990

The Patent Cooperation Treaty, 1970 (effective from 24 January 1978)

Trademark Law Treaty (TLT), 1994 (adopted on 27 October 1994)

Trans-Atlantic Trade and Investment Partnership (TTIP), *proposed*

WCO Risk Management Guidelines for more effective controls

WIPO Convention, 1967 (entered into force on 26 April 1970)

WTO July Package, 2004 (adopted on 01 August 2004)

LIST OF ACTS AND REGULATIONS

1997-Law No. 12: revision of the 1982-Law No. 6, revision of the 1987-Law No. 7 relating to copyrights (Indonesia)

1997-Law No. 13: revision of the 1989-Law No. 6 relating to patent rights (Indonesia)

1997-Law No. 14: revision of the 1992-Law No. 19 relating to trademark rights an (Indonesia)

1997-Presidential Order No. 15 relating to the improvement on the 1979-Presidential Order No. 24 relating to the ratification of the Paris Convention and the convention for establishing the World Intellectual Property Organization (WIPO) for the protection of industrial property rights (Indonesia)

1997-Presidential Order No. 18 relating to the ratification of the Bern Convention for the Protection of Literary and Artistic Works (Indonesia)

Argentine Patent Law, 24.481

China General Administration of Customs Decree No. 114

Copyright Act, 1968 (Australia)

Council Regulation (EC) No. 1383/2003

Counterfeit Goods Act, 1997 (South Africa)

Customs Law of the People's Republic of China (Adopted 22 January 1987, and 8 July 2000) (China)

Indonesian Patent Law [No. 14] 2000

Industrial Property Common Regime of the Andean Community, Decision 486

Notification No. 47/2007-Customs (N.T.) (India)

Olympic Insignia Protection Act, 1987 (Australia)

Trade Marks Act, 1995 (Australia)

U.S. Copyright Act, 1976

LIST OF CASES

List of Tables and Figures

List of Boxes

CHAPTER 1

INTRODUCTION

In the present era of rapid globalisation, importance of international trade in the context of global economic growth can hardly be overemphasised. Countries are now more intrinsically integrated with each other to ensure optimal utilisation of their resources. While abundance or scarcity of resources determines the level of participation of these countries in international trade, the urge for facilitating every single step involved in trade procedure has always been a major policy agenda for members of the global trading community. Hence, numerous efforts have been made to facilitate international trade in goods and services under the auspices of the General Agreement on Tariff and Trade (GATT) and its successor the World Trade Organization (WTO). Consequently, the issue of intellectual property rights (IPRs) has also been addressed in the context of goods trade as offences relating to IPR affect almost every manufactured good with a commercial value. Understandably, copyright, trademarks and designs industries are the worst affected by IPR infringement. More so because IPR enhances a country's productivity by promoting technological inventions, adding new horizon to academic knowledge and fostering literary and artistic works. Advancement in technology and sophistication of production methods over the past decades have further enabled profit-seeking counterfeiters to improve the quality and quantity of the counterfeit products to deceive consumers and capture alarmingly large share in the global market.

Articles 51-60 of the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) address the issue of 'Border Measures' in the context of international trade. As the principal border security agency, Customs authorities in every country are bestowed with the responsibility to deter and intercept infringement of IPRs in international trade. Despite continuous efforts at national, bilateral, regional and multilateral levels, infringement of IPRs at national borders continues to undermine the efforts towards trade facilitation and pose formidable threat to countries' economic growth and social security. According to the World Customs Organization (WCO), customs authorities around the world seized or detained about 3 billion units of counterfeit/pirated commodities in 2013 alone. The nature of seized items ranged from high end

electronic goods like automobile and air craft spare parts, computers, mobile phones and games to life saving medicines and basic consumer products like baby food, shoes, etc.

In this backdrop, the present research analyses the nexus between trade facilitation and border infringement of IPRs, addresses the critical issues relating to customs role in facilitating trade through border enforcement of IPR regulations in light of the TRIPS Agreement, and articulates issue-specific policy recommendations for further strengthening of IPR enforcement to facilitate legitimate trade.

1.1 Background

According to the TRIPS Agreement, stronger protection of IPR should encourage both innovation and international diffusion of technology. The relationship between IPRs and innovation is clear: IPR protection provides innovators with legally enforceable power to prevent others from unauthorised use of an intellectual creation, new technology or knowledge that is likely to be copied or imitated, thus lowering the potential profits of the innovator and reducing the incentive for individuals to undertake innovative activities. As technology becomes sophisticated, such law enforcement agencies like Customs are further equipped with advanced tools to facilitate conduct of international trade. Development of the Automated System of Customs Data (ASYCUDA) in the early 1980s is a glaring example of the role and impact of technology in trade facilitation.[1] Later on, a new version of the software was released as ASYCUDA++ to ensure better technological involvement in trade facilitation. Had there been no IPR protection in place, one could only assume whether such a useful Customs tool would have ever been developed. The importance of IPRs in relation to innovation has been well argued by many.[2]

In recent years, with the goal to fight against the spread and deterioration of IPR infringement in the field of international trade, many countries and separate customs

[1] ASYCUDA is a platform for Electronic Data Interchange (EDI) between traders and Customs using EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport) rules. UNCTAD developed ASYCUDA after receiving a request from the Economic Community of Western African States (ECOWAS) in 1981 to assist in the compilation of foreign trade statistics in their member States. As the work began, it was realised that Customs was an integral part in the data collection process. For further details on ASYCUDA, visit http://www.asycuda.org/aboutas.asp.

[2] See, for example, S. Kanwar and R.E. Evenson, 'Does intellectual property protection spur technological change?' (2003) 55 *Oxford Economic Papers* 2-8.

territories have been attaching more importance to administrative protection besides simultaneously reinforcing legislative and judicial protection.[3] Customs administration modernisation initiatives taken by countries at different stages clearly indicate manifest such importance. As globalisation becomes increasingly prevalent in almost every aspect of the economy, the amount of imported tangible products rushing into countries is increasing by the year. Consequently, patent and trademark holders in the importing countries are leaning towards legal system in their respective countries as well as those devised for the international trading community to prohibit the infringement of IPRs, specifically in import trade.

Such importance of IPRs protection becomes more significant in view of the fact that in recent decades, the competition for market share in knowledge-intensive goods rapidly intensified throughout the global economy. These goods rely on innovative characteristics that are protected by IPRs.[4] The protection of IPR, particularly those that protect innovations that are widely used and therefore prone to imitation, entails large costs. Many firms and individuals seek prosecution of alleged violations by engaging in court litigation to redeem monetary damages caused by alleged violators. This form of enforcement is common between entities within a single country where each party is generally subject to the same laws and courts. However, in an increasing global economy, alleged IPR violations frequently occur outside of the innovator's country or by firms based in a foreign country. In such multi-country cases, the ability to enforce IPR becomes more difficult.[5] Hence, cross-border IPR infringement needs to be addressed with proper administrative and legal enforcement mechanism.

Positioned at the international border, be it land, sea or air[port] borders, Customs authority has the prime responsibility to facilitate trade by way of guarding against importation and exportation of infringed and counterfeit goods into and from their respective countries. The Customs authority relies on a number of statutory provisions to conduct its enforcement activities in the protection of intellectual property (IP). While there are specific statutory

[3] Y. Yu and L. Zhang, 'Analysis of Enforcement Mechanism of Section 337 of the US Tariff Act through Perspectives in Law and Economics' (2012) 17 *Journal of Intellectual Property Rights* 209.

[4] T.P. Trainer, *Border enforcement of intellectual property* (Oceana Publications, 2000) 3.

[5] E.P.Chiang, 'Determinants of Cross-Border Intellectual Property Rights Enforcement: The Role of Trade Sanctions' (2004) 71(2) *Southern Economic Journal* 424.

provisions regarding customs authority to protect copyrights and trademarks, there is a general provision in most of the customs laws that authorises Customs to use discretionary powers to protect copyrights, trademarks, trade names and trade dress.[6] Such powers include, but are not limited to, intercepting consignments or individuals suspected of carrying counterfeit goods, communicate with the original copyright holder to determine the nature and level of IPR infringement, and file law suit against the accused.

During 2014, Customs authorities around the world seized more than 233 million counterfeit or pirated articles. The number of IPR infringing products seized at the external borders of the EU rose from 10 million in 1998 to 253 million in 2006. Between 2005 and 2006, the US Customs and Border Protection agency reported 86 per cent increase in the number of products intercepted. As for the Chinese Customs authorities, they have seen the number of counterfeit products seized double over the same period[7]. On a broader front, counterfeit goods resulted in a loss of about US$650 billion by world economy in 2006 and accounted for an estimated 6-7 per cent of world trade[8].

In view of the ever increasing pervasiveness of IPR infringement in international trade, the issue is receiving higher prominence in bilateral and regional trade agreements. Chapter Seventeen of the Australia-United States Free Trade Agreement (2005),[9] Chapter Seventeen of the North American Free Trade Agreement (NAFTA) (1994),[10] the Agreement concerning the Protection and Enforcement of Intellectual Property Rights between the Government of the United States of America and the Government of Jamaica[11] are only a few examples of such endeavours by countries to deal with the menace of IPR infringement at an international level.

---

[6] Trainer, above n 4, 5.

[7] World Customs Organization, 'Counterfeiting and Piracy: Crime of the 21st Century?' (2007).

[8] Jr. Ralph V. Frasca, 'Product Counterfeiting: The Economic Scourge of the 21stCentury' (2009) <http://www.bicsi.org/pdf/winter_2010/Ralph_Frasca.pdf> (accessed 23 February 2012).

[9] Australian Government, *Australia-United States Free Trade Agreement* <http://www.dfat.gov.au/fta/ausfta/final-text/chapter_17.html> (accessed on 12 March 2013).

[10] Organization of American States, *North American Free Trade Agreement* <http://www.sice.oas.org/trade/nafta/chap-171.asp> (accessed on 12 March 2013).

[11] WIPO, *Agreement concerning the Protection and Enforcement of Intellectual Property Rights between the Government of the United States of America and the Government of Jamaica* <http://www.wipo.int/wipolex/en/other_treaties/text.jsp?file_id=241401> (accessed on 12 March 2013).

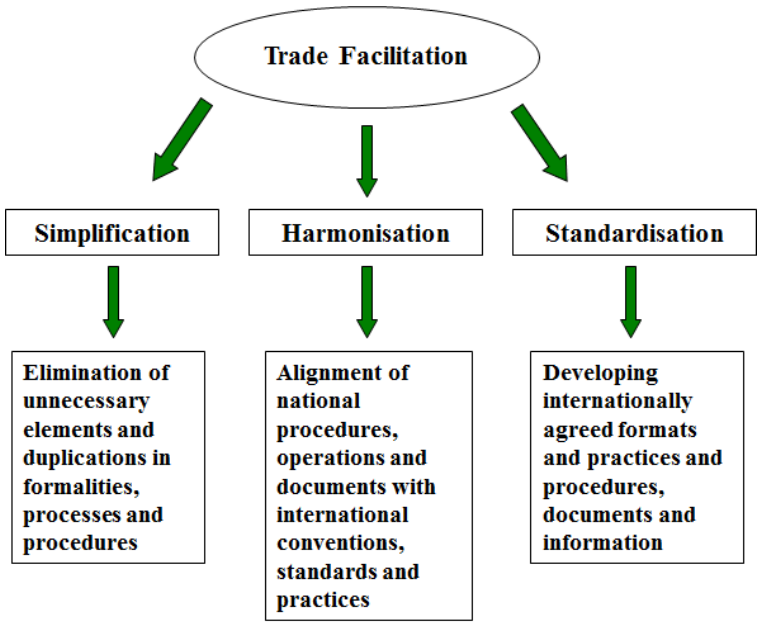
Despite the fact that WTO Member countries have been continuously undertaking various measures to reform and modernise their customs administration, any impact of such endeavours on combating infringement of IPR has never been discussed. In view of this, the present research addresses the critical issues relating to customs role trade facilitation through border enforcement of IPR regulations in the light of the issues and concerns related to the WTO TRIPS Agreement.

1.2 Understanding Trade Facilitation

Trade facilitation potentially covers a multitude of issues that are relevant to the smooth and efficient flow of trade. The term has been used in the context of a broad range of potential non-tariff barriers such as import licensing, product testing and overly-complex customs clearance procedures. Increased facilitation of trade should result in improved economic growth for countries and improved competitiveness for their industries, by reducing unnecessary bureaucratic requirements and harmonising relevant process, while at the same time ensuring that each country has the right to protect itself from unlawful trade practices.

Figure 1.1

Trade Facilitation: A Coherent Approach



Source: Author

For individual Members, the priority issues relating to trade facilitation are heavily influenced by the perspective of the country concerned. For example, if a country is land-locked, the focus of trade facilitation is likely to be on the need for an efficient and effective transport mechanism that services its trade, regardless of distance and the number of borders to be crossed.

The ability of countries to deliver goods and services in time and at low costs is a key determinant of their participation in the global economy; and easier movement of goods and services clearly drives export competitiveness. Trade Facilitation is about ensuring that customs procedures are trade friendly and facilitate legitimate cross border movement of goods and services. Thus, trade facilitation assumes even greater importance now in the arena of international trade given the recent trends in the structure of goods and services traded and the sophistication of such products.

WTO defines trade facilitation as 'the simplification and harmonisation of international trade procedures' that deal with 'activities, practices and formalities involved in collecting, presenting, communicating and processing data and other information required for the movement of goods in international trade'.[12] First discussed under the ambit of WTO in 1996 during the Singapore Ministerial, trade facilitation became known as one of the four *Singapore Issues*. However, no encouraging headway could be made in the negotiations until 2004 when the so called 'July Package' was announced. This was possibly the first meaningful step in giving a momentum in trade facilitation negotiations by way of outlining specific mandates. Encouraged from the development, Members of the WTO started tabling proposals to the Trade Negotiations Committee (TNC). It was not until the Bali Ministerial Conference of the WTO in December 2013 that an explicit Agreement on Trade Facilitation has been penned as part of the Bali Package. The agreement articulates provisions to ensure faster and more efficient customs procedures through effective cooperation between customs and other relevant agencies on trade facilitation and customs compliance issues. Provisions for technical assistance and capacity building in related areas are also part of the Agreement. It is indeed evident that the focus of trade facilitation

[12] WTO, 'WTO: a training package: what is trade facilitation?' (1998) <http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto02/wto2_69.htm#note2> 3 (accessed on 10 October 2007).

under the WTO is now more on Customs modernisation and efficiency enhancement. The issue of trade facilitation has been further elaborated in Chapter 2 of the thesis.

For decades, WTO has been working relentlessly to establish common sets of international standards and good customs practices for their member countries. However, the challenge remains in the area of implementation of customs procedures and other administrative measures based on international standards. This is, perhaps, one of the critical loopholes that the pirates and counterfeiters have long been targeting to channel contrabands, and pirated and counterfeit goods into the importing countries.

In recent years, the idea of trade facilitation has expanded to include modernisation and automation of import procedures in order to make adoption of international standards easier. It is generally understood that trade facilitation involves reduction of transaction costs for all parties of the enforcement, regulation and administration of trade policies. Thus, trade facilitation has been described as the 'plumbing of international trade' which focuses on efficient implementation of trade rules and regulations.[13] By nature, trade facilitation is very technical and detailed. For example, United Nations Conference on Trade and Development (UNCTAD) estimated that an average customs transaction involves 20-30 different parties, 40 documents, 200 data elements and the repeated entry of the same data in the reporting process.[14] Hence, it is evident that it is not only the parties involved in trade that need to be addressed as part of any attempt to facilitate trade, it is also the documents and communication methods which are required to be brought under the umbrella of trade facilitation.

The traditional role of Customs over the years has been enforcement of prohibitions and restrictions, and collection of import and export revenues. This role has evolved over time to include facilitation of legitimate trade and protection of society through environmental, health and cultural controls. That is, there has been a shift from the economic protection function of Customs (through the instruments of customs duties) to a broader protection of

[13] Brian Rankin Staples, 'Trade facilitation: improving the invisible infrastructure' in Bernard Hoekman, Aditya Matto and Philip English (eds), *Development, Trade and the WTO: a Handbook* (World bank, 2002) 4.

[14] WTO, *Trade Facilitation: Cutting red tape at the border* <http://www.wto.org/english/thewto_e/minist_e/min99_e/english/about_e/15facil_e.htm> (accessed on 05 March 2012).

society and the citizen. As infringement of IPRs continues to undermine the gains from trade, renewed emphasis are being given to protect international borders from being penetrated by perpetrators pushing in illegal, hazardous and low-quality product into destination countries.

Since September 11, 2001 Customs and its stakeholders have been required to balance new security measures with changing patterns in cargo and passenger movements in a global economy that is more dependent than ever on rapid movement of goods and services. Thus, the challenge to the Customs community today is to proactively manage the apparently contradictory role of ensuring improvement in the speed and service delivery of Customs formalities while maintaining systematic and effective intervention controls in a 'hostile' environment where organised crime and terrorist activity is an ever-increasing threat.

Trade facilitation involves more than just customs facilitation. It encompasses all elements of the international supply chain. Consequently, stakeholders generally include those government and business entities that are involved in the administration or conduct of international trade. UNCTAD, for example, has observed that in most countries, trade facilitation involves the ministries of trade, transport and finance as well as the private sector.[15] Hence, enforcement of IPR regulations at the national borders calls for pro-active participation by all the concerned stakeholders involved in the process of trade facilitation initiatives.

In view of the above, the ongoing negotiations on trade facilitation within the ambit of the Doha Development Round (DDR) in the WTO carry out much importance for members of the global trading community. In particular, the Doha Declaration and subsequent decisions of the General Council of the WTO have been working towards ensuring intensified commitment to expedite the movement, release and clearance of internally trade goods. Detailed discussion on the relationship between trade facilitation and border enforcement of IPR is presented in Chapter 2.

[15] UNCTAD, 'Trade facilitation as an engine for development' (2005) *Note by the secretariat (TD/B/COM.3/EM.24/2)* 6.

1.3 Intellectual Property Rights and Their Infringements

Although conceptually and legally different concepts, both counterfeiting and unauthorised use of protected content (UUPC) constitute illicit activities linked to IPR infringement.[16] IPRs enable creators, businesses and investors to protect their tangible and intangible products by preventing unauthorised exploitation of their goods or by allowing such exploitation in return for compensation.[17] In that way, proportionate protection of IPR plays an important role in research and development (R&D), innovation, creativity and competitiveness, and is considered crucial for building a knowledge economy. With greater trade facilitation equipped with sophisticated tools and widened knowledge of the issue, more effective results can be achieved in border protection of IPR infringement.

IPRs in general refer to a set of special rights attributed to an individual, a group or a business that has a direct contribution in the process of invention or innovation.[18]These are broadly divided into two main areas: copyright (in common law countries) or authors' right (in civil law countries) on the one hand, and industrial property on the other. A recent document published by the European Commission describes all the rights that are relevant to IP.[19] An overview of these rights is provided below.

Table 1.1

Overview of Intellectual Property Rights

Types of intellectual property rights	Subject matter	Main fields
Patents	New, non-obvious, industrially applicable inventions	Chemicals, drugs, plastics, engines, turbines, electronics, industrial control and scientific equipment

[16] Stijn Hoorens et al, 'Measuring IPR infringements in the internal market: Development of a new approach to estimating the impact of infringements on sales' (European Commission, 2012) 6.

[17] Ibid; M Rafiqul Islam, *International Trade Law of the WTO* (Oxford University Press, 2006) 380.

[18] While invention is to build something with no previous existence, innovation means improving upon an existing pattern or technology. For more details, see Andrew Stewart, Phillip Griffith and Judith Bannister, *Intellectual Property in Australia* (LexisNexis Butterworths, 4th ed, 2010) 331-365.

[19] Hoorens et al, above n 16, 12.

Types of intellectual property rights	Subject matter	Main fields
Trademarks	Signs or symbols to identify goods and services	All industries
Copyright	Original works of authorship	Printing, entertainment (audio, video, motion pictures), software, broadcasting
Integrated circuits	Original layout designs	Micro-electronics industry
Breeders' rights	New, stable, homogeneous, distinguishable varieties	Agriculture and food industry
Trade secrets	Secret business information	All industries
Industrial designs	Ornamental designs	Clothing, automobiles, electronics, etc.
Geographical indications	Geographical origin of goods and services	Wines, spirits, cheese and other food products
Utility models	Functional models/ designs	Mechanical industry

Source: Author's compilation

The areas of IP covered under the TRIPS can be distinguished into three broad categories. The Agreement is *non-discriminatory* in nature and is based on the principle of *Most Favoured Nation* (MFN) treatment.[20] The IPRs under the agreement are Copyright, Related rights and Industrial property. Subject matters covered under each category are articulated below:

Copyright:

- Artistic works
- Literary works

  [also includes computer software and databases]

Related (neighbouring) rights

- Performers' rights

[20] The MFN principle implies that every member country of WTO are treated equally. Hence, a member country cannot offer special treatment, higher than that provided to other member countries, unless otherwise permitted by the WTO agreement. For details on WTO legal principles, visit http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm.

- Phonogram producers' rights
- Broadcasters' rights

Industrial property (distinctive signs and innovations)

- Trademarks
- Geographical indications
- Industrial designs
- Patents
- Plant varieties protection
- Topographies of integrated circuits
- Undisclosed information (such as trade secrets, test data)

As can be seen, the scope of the TRIPS Agreement is essentially wide and covers all the principal categories of IPRs. Each of the forms of IPR is significant when it comes to trading across nations. Production, distribution, storage and sales of products (such as trademarked or patented products) by non-holders of an IPR are infringement of IPR legislation. These are commonly referred to as counterfeit and pirated (C&P) products, and they may include music, film, software, medicines, fertilisers, aircraft and car parts, luxury goods (such as bags and watches) and a wide range of other goods. As explained above, IPR violations are thought to impact industry and government interests. As a consequence, industry initiatives to combat illicit activities are already taking place, and the response from international and national organisations is intensifying.[21]

Industry efforts, pursued at the firm and sector-level, as well as cross-sector initiatives, focus on four main areas. *First*, industries conduct research and collect information about counterfeiting and UUPC practices in their sectors. These data are used to develop public awareness about illicit products and develop counter-measures.[22]*Second*, legitimate goods producers undertake various steps to make their products more difficult to copy and counterfeit, for example through improvements in authentication and track-and-trace technologies. *Third*, industry representatives are involved in supporting government efforts

[21] Hoorens et al, above n 16.

[22] Peggy E Chaudhry and Alan S Zimmerman, *The Economics of Counterfeit Trade: Governments, Consumers, Pirates, and Intellectual Property Rights* (Springer, 2009) 18.

to combat counterfeit and UUPC,- this takes the form of training and awareness-raising programmes delivered to police, prosecutors, customs officials and enforcement personnel in the producers' own country as well as in third-party countries. *Fourth*, industry takes legal action and pursues violators of IPR through courts.[23]

Recent years have seen several initiatives to enhance international co-operation to reduce trade in counterfeited and pirated products, through improvements in the effectiveness of IP policies and programmes and closer international collaboration of stakeholders (details on such initiatives have been discussed in Chapter 2). This includes initiatives led by WTO, the World Intellectual Property Organization (WIPO), the WCO, the World Health Organization (WHO) and others. Furthermore, given the complexity and delay in reaching agreements at multilateral levels, powerful nations are now advocating more than ever sophisticated legal instruments to deter IPR infringement. The TRIPS-plus initiatives by some countries and such multilateral agencies as WHO and WIPO in recent times exemplify this stark reality. The Anti-Counterfeiting Trade Agreement (ACTA) is one of such tools adopted by developed countries to protect their IPRs in other countries.[24] ACTA aims at establishing an international legal framework for targeting counterfeit goods, generic medicines and copyright infringement in a digital environment (such as on the net). The initiative also created a new governing body outside such existing forums as the WTO, the WIPO, or the United Nations UN). Does ACTA, and for that matter the TRIPS-Plus initiatives, act as impediments in the way of facilitating international trade? An investigative analysis on this issue is presented in Chapter 5 of the thesis.

The recently concluded Agreement on Trans-Pacific Partnership (TPP) has reiterated the importance of border coordination and IP protection in facilitating international trade.[25] On

[23] OECD, 'The Economic Impact of Counterfeiting and Piracy' (2007) <http://www.oecd.org/industry/ind/38707619.pdf> (accessed on 18 December 2012) 8-15.

[24] Sunil Kumar Agarwal, Navin Srivastava and Amita Agarwal, 'Trips-Plus Agenda Through Anti-Counterfeiting Trade Agreement: Implications for India ' (2011) <http://ssrn.com/abstract=1868026> (accessed on 30 April 2012) 3.

[25] On October 5, 2015, Ministers of the 12 Trans-Pacific Partnership (TPP) countries – Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States, and Vietnam – announced conclusion of their negotiations. The result is a high-standard, ambitious, comprehensive, and balanced agreement that will promote economic growth; support the creation and retention of jobs; enhance innovation, productivity and competitiveness; raise living standards; reduce poverty in our countries; and promote transparency, good governance, and enhanced labour and environmental protections. We envision conclusion of this agreement, with its new and high standards for

customs administration and trade facilitation, the TPP parties complemented the works of the WTO to facilitate trade, and agreed on rules to enhance the facilitation of trade, improve transparency in customs procedures, and ensure integrity in customs administration. TPP's IP chapter covers patents, trademarks, copyrights, industrial designs, geographical indications, trade secrets, other forms of IP, and enforcement of IPRs, as well as areas in which Parties agree to cooperate.

In addition to the TPP, the Trans-Atlantic Trade and Investment Partnership (TTIP) is another platform where the US and the EU have been showing commitments and efforts to create a development friendly trading environment. Various proposals put forward in the negotiating process of the TTIP include lowering costs, increasing more transparency, and reducing red tape at borders to benefit small exporters and producers even more than their larger competitors, as well as small retail, wholesale, transport, and logistics firms.[26]

While importance of IPRs and their positive impact on individual and collective lives are well understood, there are segments of the society who are always ready to take the risk of bending the rules to gain profits in unauthorised ways. However, the issue of IPR infringement is not a one-sided business. Economics of demand and supply can never be overlooked when it comes to any business,- legal or illegal. As brands are made to attract consumer, the price of the brand is not always within the reach of everybody in the society. It is this gap in demand and ability that often paves the way for counterfeit goods to be accepted by consumers. Determinants from demand and supply sides play crucial roles in this context. Hence, monopoly rights created to protect IPR can sometimes trigger unauthorised businesses to penetrate the market.[27] Some has even argued whether IPRs

---

trade and investment in the Asia Pacific, as an important step toward our ultimate goal of open trade and regional integration across the region.

[26] USTR, <https://ustr.gov/sites/default/files/03142014-TTIP-opportunities-for-SMEs.pdf> (accessed on 8 December 2015).

[27] CUTS, 'Intellectual Property Rights and Competition Policy' (2008) 1 *Viewpoint* <http://www.cuts-international.org/pdf/VP-IPRs-CompPolicy.pdf> (accessed on 21 February 2012), 2; John F. Duffy, 'Intellectual Property as Natural Monopoly: Toward a General Theory of Partial Property Rights' (2005) <http://www.utexas.edu/law/wp/wp-content/uploads/centers/clbe/duffy_intellectual_property_natural_monopoly.pdf> (accessed on 29 April 2012) 4-6.

could be called intellectual monopoly rights.[28] Whichever approach is taken, it is obvious that monopoly enjoyed by multi-national corporations (MNCs) are not accepted by all stakeholders in a positive way. Particular examples in this context are the pharmaceuticals sector, and global big brands like Coca-Cola, Nike, Adidas, Microsoft, etc.

As will be discussed in the following chapters, the more restricted the access to product (protected by monopoly rights), the more prone these are to become victim of counterfeiting and piracy. Similar finding have been revealed by a recent report that suggests that the world's most valuable brands have been subjected to extensive counterfeiting.[29] While there is no concrete measurement of the global counterfeit market, figures released by various authorities range between USD200-600 billion (some even assumes it to be worth USD1 trillion) with a staggering growth of over 1,700% - 10,000% over the last two decades.[30]

TRIPS defines counterfeiting in the following manner:

> [C]counterfeit trademark goods' shall mean any goods, including packaging, bearing without authorisation a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation.[31]

This definition essentially sets the standard for how counterfeiting is understood in research and analysis. However, when the present study refers to counterfeit products it

[28] Birgitte Andersen, ''Intellectual Property Right' Or 'Intellectual Monopoly Privilege': Which One Should Patent Analysts Focus On?' (2003) <http://redesist.ie.ufrj.br/globelics/pdfs/GLOBELICS_0050_Andersen.pdf> (accessed on 13 August 2012) 1.

[29] Best Global Brands, (2007) <http://www.ourfishbowl.com/images/fishbowl_story/2672007/bestglobalbrands_2007ranking.pdf> (accessed on 29 December 2007).

[30] United States Customs and Border Protection, 'United States customs and border protection and European commission announce first joint operation combating counterfeit goods' (2008) <http://blogs.customhouseguide.com/news/> (accessed on 10 October 2008), 512; Chaudhry and Zimmerman, above n 23, 9.

[31] WTO, *Agreement on Trade Related Aspects of Intellectual Property Rights* <http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> (accessed on 7 March 2012) 342.

does not limit itself to trademark violations. Hence, the study generally adheres to the broad definition introduced by the OECD:

> … the term 'counterfeiting' is used in its broadest sense and encompasses any manufacturing which so closely imitates the appearance of the product of another to mislead a consumer that it is the product of another. Hence, it may include trademark infringing goods, as well as copyright infringements. The concept also includes copying of packaging, labelling and any other significant features of the product.[32]

While in this definition copyright infringements are considered counterfeiting as well, the study builds on the notion that these violations clearly distinguish themselves from counterfeiting. Piracy is a popular term for such infringements.

Although the term is commonly used in the literature as well as in popular media, it is not uncontroversial and can be subject to multiple interpretations. Products characterised by such unauthorised use are mostly (but not always) in violation of copyright. This aspect of authorisation is also reflected in the definition provided by TRIPS:

> pirated copyright goods' shall mean any goods which are copies made without the consent of the right holder or person duly authorised by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a copyright or a related right under the law of the country of importation.[33]

In its report on digital piracy, the OECD used the definition of piracy suggested by TRIPS, but focused on copyright infringements that cover 'only Internet and direct computer to computer transfers, Local Area Network (LAN) file sharing, mobile phone piracy and so on'.34It is believed that the term 'digital' is confusing in this context, as tangible goods

[32] OECD, above n 23.

[33] WTO, above n 31.

[34] OECD, above n 23.

such as CDs, DVDs, flash drives, etc. are also digital media.[35]Hence, the present study uses the term 'online' when referring to counterfeiting of non-tangible goods available through the internet, file-sharing and so on. As cyber-trade has now captured significant portion of international trading, transportation of digital media across borders also calls for proper IPR protection measures. Thus, trade facilitation demands widened initiatives to combat cyber-crime in the context of IPR infringement in international trade.

1.4 Literature Review

As the main government agency responsible to safeguard the external frontier, Customs is required to guard against both importation and exportation of dangerous and counterfeit products which pose serious threat not only to the economy, but also to the society in general. It is, therefore, of utmost importance that Customs authority in any country is equipped with appropriate administrative, legal, and technical instruments to perform their duties in a manner supportive to economic growth and national security.

The following is a review of relevant literature focusing on some of the key aspects of trade facilitation, its impact on Small and Medium Sized Industries (SMEs), and how customs, as a border enforcement agency, is responsible to safeguard the national border from export and import of prohibited and contraband items. The discussion also deals with modernisation of customs administration and how it relates to strengthening the authoritative power of the customs administrations.

1.4.1 Border Enforcement of IPR Regulations

Whilst a large number of literature provides general overview of the definition and nature of IP,[36] there seems to be only a handful of literary works focusing on the nature and scope of customs administrations in protecting IPR infringements across the borders. *Trainer and*

[35] Gary Shelly et al, *Teachers Discovering Computers: Integrating Technology and Digital Media in the Classroom* (5th ed, 2008), 234; Curtis Poole and Janette Bradley, *Developer's Digital Media Reference: New Tools, New Methods* (Elsevier Science, 2003) 172.

[36] W.R. Cornish, *Intellectual Property* (Sweet & Maxwell, 1981) 4-8; J. Phillips, *Introduction to Intellectual Property Law* (Butterwirth & Co (Publishers) Ltd, 1986) 3-12.

Allums[37] and *Vrins and Schneider*[38] are amongst the very few publications that discusses the issue of protection and enforcement of IPR laws across the borders at length. *Harrison* presents a useful discussion on the commitment of the international society towards fighting the menace of IPR infringement.[39] While this has been a useful reference, the details of the WTO-TRIPS agreement are provided in the WTO legal texts.[40]

Apart from the above, the official websites of the WIPO, WTO, WCO and the Australian and US Customs have been rigorously looked into. A number of publications by the WIPO, WTO and WCO have also been reviewed. Encouragingly enough, there are some background information available which has proved to be useful for the present study.

In order to have a broader understanding of the issue, some of the materials were screened through which related to the Australian context. The Australian Customs Service manages the security and integrity of the Australian border and assists people and cargo to move in and out of the country. It works with other government agencies, such as the Australian Federal Police, the Australian Quarantine and Inspection Service, the Department of Immigration and Citizenship and the Department of Defence, to detect and deter the unlawful movement of goods and people across the Australian border. Protecting the Australian community by intercepting illegal goods, such as drugs and weapons, is a high priority for the Australian Customs. All required sophisticated techniques are used to target high-risk aircraft, vessels, cargo, postal items and travellers to this end.[41]

The literature on cross-border IPR litigation largely consists of policy papers and legal studies. *Pooley* provided a conceptual basis for filing cross-border litigation based on cost-

---

[37] T.P. Trainer and V.E. Allums, *Protecting Intellectual Property Rights across Borders* (Thomson/West, 2006) 5-37.

[38] O. Vrins and M. Schneider (eds), *Enforcement of intellectual property rights through border measures* (Oxford University Press, 2006) 3-26.

[39] Mark Harrison, *International Customs Law PG: Study Guide* (Centre for Customs and Excise Studies, University of Canberra, 2006) 8-11.

[40] World Trade Organization, *The Legal Text: The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge University Press, 1999) 319-351.

[41] Commonwealth of Australia, 'Annual Report 2006-07' (Australian Customs Services, 2007) <http://www.customs.gov.au/webdata/resources/files/AnnualReport06_07_Full.pdf> 5.

benefit analyses, logistics and procedures, and political risks. [42] *Arnold* examines jurisdictional validity of cross-border litigation using examples from actual cases,[43] while *Dutson* and *Maskus* study the difficulties of enforcing IPR across borders in the Internet age where jurisdiction is often undefined.[44] These studies and others all allude to common concerns regarding the enforcement of IPR between firms in different countries: the interpretation of jurisdictional boundaries, and asymmetries in IPR law and their enforcement. Over the past decade, greater efforts have been implemented to facilitate cross-border actions by reducing the barriers caused by national borders; these efforts include the TRIPS agreement and *Lugano Convention*. However, the literature does not empirically investigate how different obstacles (or the resolution thereof) facing cross-border litigation affect the willingness of firms to pursue litigation.

Nearly all existing research on IPR enforcement focuses on domestic disputes and unilateral cross-border enforcement. *Lanjouw and Schankerman* find the propensity to pursue court litigation rises when the value of stakes involved is high.[45]Using a set of litigated U.S. patents, they find patent litigation more likely when: 1) the number of claims and/or the number of forward citations (patent references made by future applications) made by the patent is greater; 2) industries are 'crowded' (those with many competing firms); and 3) the patent is in a new technology area (one with fewer backward citations). Although their analysis is limited to the litigation of U.S. patents, the study does distinguish between domestic and foreign ownership. They find that foreign patents are much less likely to be enforced than domestic patents, presumably due to high costs of litigating abroad. This suggests that IPR infringements are more rampant when they involve firms from more than one country.

---

[42] J. Pooley, 'Putting Together a Global Enforcement Solution' (1999) (94) *Managing Intellectual Property* 16-19.

[43] R. Arnold, 'Cross-border Enforcement: The Latest Chapter' (1999) (4) *Intellectual Property Quarterly* 389-426.

[44] Stuart Dutson, 'The Internet, Intellectual Property and International Litigation: The Implications of the International Scope of the Internet on Intellectal Property Infringements' (British and Irish Legal Education Technology Association, 1998) <http://www.bileta.ac.uk/content/files/conference%20papers/1998/The%20Internet,%20Intellectual%20Property%20and%20International%20Litigation.pdf>, 2; E.K. Maskus, *Intellectual Property Rights in the Global Economy* (Institute for International Economics, 2000) 227.

[45] J. Lanjow and M. Schankerman, 'Characteristics of Patent Litigation: A Window on Competition' (2001) (32) *Rand Journal of Economics* 129.

Perhaps of significant interest in recent times is the ability of the developing and least developed countries to comply with the higher legal norms of TRIPS-Plus measures advocated by their developed trading partners.[46] As is known, TRIPS underscores the minimum standards to be followed by the Member countries of the WTO. Hence, any additional measure in the context of IPR falls in the TRIPS-Plus category. Proponents of the various TRIPS-Plus measures hail the initiatives for the view point of protection of rights of the creator. On the other hand, already the hard-pressed developing and least developed countries fear that such additional commitments are going to have further adverse negative impact their extent of globalisation. While the handful of existing literature on TRIPS-Plus measures talk about the concerns relating to their impact on developing countries' trade and economy, no authentic study could be obtained that investigates the nexus between TRIPS-Plus measures and trade facilitation. Hence, the thesis will attempt to analyse this crucial relationship in as much details as possible.

1.4.2 Application of Information Technology in Trade Facilitation

With regard to analysing the state of trade facilitation and the cost implications for implementation of various trade facilitation measures, a study reported that the complex nature of documentation, the lengthy time taken in releasing and clearing goods from ports, and corruption among customs personnel were the major hurdles in operating a business.[47] The study further showed that a lack of automated customs procedures was a major impediment for the business community in the context of trading across borders. Similar concerns for the export-oriented industries, particularly Small and Medium Enterprises (SMEs), were raised by a number of other studies.[48] In addition, SMEs in least developed countries have received disproportionately smaller amounts of support from the Government in terms of policy or fiscal incentives, although there have been

[46] Agarwal, Srivastava and Agarwal, above n 24, 7.

[47] Debapriya Bhattacharya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006) 8.

[48] M.U. Ahmed, 'Globalisation and Competitiveness of Bangladesh's Small- Scale Industries (SSIs): An Analysis of the Prospects and Challenges, Bangladesh Facing the Challenges of Globalisation' in *A Review of Bangladesh's Development 2001* (Centre for Policy Dialogue and The University Press Limited, 2002), 231; N. Hossain, 'Constraints to SME development in Bangladesh, job opportunities and business support (Jobs) program' (1998) 38.

improvements in the sanctioning and other administrative procedures affecting development of SMEs.[49]

The strongest barriers faced by SMEs when engaging in exporting were long perceived to be lack of finance and access to markets. However, as SMEs started becoming involved in exporting activities, these barriers receded in importance, and the business environment and internal capabilities emerged as stronger barriers.[50] As overcoming these barriers has become the key factor in developing the SME sector, the necessity for trade facilitation has become prominent. It is in this context that *Prasad* mentioned that trade facilitation initiatives had significant positive impacts on the private sector by increasing the volume of exports and imports as well as through helping exporters find new markets.[51] In addition, the Organisation for Economic Co-operation and Development (OECD) emphasised that improved and simplified customs procedures had a significantly positive impact on trade flows.[52]

A global survey on 'Removing barriers to SME access to international markets' by OECD/APEC identified a range of barriers that were detrimental to access by SMEs to international markets. Based on the survey results, it summarised four barriers as the mysterious impediments to SMEs' access to international markets: (a) shortage of working capital for financing exports; (b) identifying foreign business opportunities; (c) limited information related to locating/analysing markets; and (d) inability to contact potential oversea customers.[53] These findings complement those of *Duval* which suggested that the focus of the multilateral trade facilitation agenda would ultimately need to be broadened to address the need of developing countries in Asia and the Pacific.[54]

---

[49] Hossain, above n 48.

[50] L.R. Lester and M. Terry, 'Removing barriers to SME access to international markets: OECD-APEC global study' (2008) <http://sbaer.uca.edu/research/usasbe/2008/pdf/PaperID65.pdf> 1508.

[51] B.C. Prasad, 'Trade Facilitation Needs and Customs Valuation in Fiji' (ARTNeT Working Paper Series 24, UNESCAP, 2006) 29.

[52] OECD, 'The role of automation in trade facilitation' (OECD, 2005) 39.

[53] Lester and Terry, above n 50.

[54] Yann Duval, 'Cost and benefits of implementing trade facilitation measures under negotiations at the WTO: An exploratory survey' (ARTNeT Working Paper Series 3, UNESCAP, 2006) 18.

Wilson estimated that all countries could benefit from more efficient customs and administrative procedures, with the greatest benefits accruing to those countries with the least efficient customs and administrative procedures.[55] A study by the World Bank found a significant positive relationship between trade flow and port efficiency, customs environment, regulatory environment and service sector infrastructure.[56] The study estimated that global trade in manufactured goods could gain as much as USD 377 billion from improvements in trade facilitation measures. Similarly, a 1 per cent reduction in trade transaction costs for goods trade would bring annual gains of about USD 40 billion on a world basis.[57] Most of these gains would benefit developing countries in relative terms. *Duval* also concluded that the long-term benefits of trade facilitation would exceed the perceived implementation costs for all measures considered.[58]

Schware and Kimberley focused on worldwide experience and identification of factors that make way for trade facilitation through the successful application of IT.[59] The study found that accessible information and communication technology could significantly improve trade performance. However, this technology must be accompanied by simplification of documentation, re-engineering of procedures, appropriate training and availability of local expertise, and a reliable and cost-effective communications infrastructure. Automation has, therefore, been considered to be making sense only if it serves as a tool to support customs management practices.[60] A number of other studies made similar recommendations when emphasising the establishment of an IT-based single window system and a modern risk-management system for ensuring higher gains from trade facilitation.[61] This holds

[55] N. Wilson, 'Examining the trade effect of certain customs and administrative procedures' (OECD Trade Policy Working Paper No. 42, OECD, 2007) 11.

[56] J.S. Wilson, C. L. Mann and T. Otsuki, 'Assessing the potential benefit of trade facilitation: A global perspective' (2004) *World Bank Policy Research Working Paper 3224* <https://openknowledge.worldbank.org/bitstream/handle/10986/14733/wps3224TRADE.pdf?sequence=1> 27 (accessed on 7 March 2012).

[57] OECD, 'Quantitative assessment of the benefits of trade facilitation' (2003) 53.

[58] Duval, above n 54, 22.

[59] R. Schware and P. Kimberley, 'Information technology and national trade facilitation' (World Bank Technical Paper No. 317, World Bank, 1995), 7.

[60] OECD, above n 52, 55.

[61] Duval, above n 54, 32; ESCAP, 'Guidelines on ICT Application for Trade and Transport Facilitation for Landlocked Countries in the Asian and Pacific Region' (2006) 9-26.

particularly true in the context that trade and transport facilitation has become critically important for developing countries with a view to reaping the benefits from the opportunities of global production and changing trade patterns.

1.4.3 Facilitating Business Process through Trade Facilitation

According to a report, a typical export process involves 27 parties, more than 40 documents, and more than 300 copies of documents and the average customs transaction involves 20 to 30 parties, 40 documents, 200 data elements (30 of which are repeated at least 30 times), and the re-keying of 60-70 percent of all data at least once, which entails significant costs.[62] The benefits that can results from different types of trade facilitation related measures such as reducing the number of documents required per transaction, are always positive, although the actual magnitude varies.[63] *Alavi*, presenting a fragmented international trade transaction process, pointed out the possible benefits that might come through shifting from paper-based trade to paper-less trade.[64] Based on gravity model simulation exercise for manufacturing trade of 75 countries, another study concluded that the scope and benefits from unilateral trade facilitation reforms can be substantiation, where trade facilitation measures include 'border' elements, such as port efficiency and customs administration, and 'inside the border' elements, such as domestic regulatory environment and the infrastructure to enable e-business usage.[65]

Trade transaction modelling (TTM), a flowchart that identifies the people or organisations involved in each step of the export or import process, uses Unified Modelling Language (UML) activity diagrams to represent the steps in a trade transaction, over time, related to

---

[62] UNECE, 'UN/CEFACT Framework of Standards for Paperless Trade: Digital Documents, Single Window, DataHarmonisation and Capacity Building' (2007) *ESCWA Regional Workshop, Cairo* <http://www.escwa.un.org/divisions/grid/reports/3.pdf> (accessed on 12 June 2012).

[63] Nathan Associates Inc., 'Holistic Modernization of the International Trade Transaction Process' (2009) 15.

[64] H. Alavi, 'Paperless Trade: Implementation Experience and the Way Ahead' (2005) <https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCcQFjAA&url=http%3A%2F%2Fwww.unece.org%2Ffileadmin%2FDAM%2Fforums%2Fforum05%2Fpresentations%2Fday1%2FHAlavi.pps&ei=DSIgU5-0AcWrkAXH7YBw&usg=AFQjCNGIdyfYCs9jNvjBFxu3NYoqVchn2A&bvm=bv.62788935,d.dGI> (accessed on 13 September 2011).

[65] Wilson, Mann and Otsuki, above n 56, 39.

the agent or organisation responsible for the action.[66] Using activity diagrams, TTM provides a better way of communicating the logical paths of a trade transaction to all concerned. In this context, a recent study has detailed out the methodology to analysis the complete business process.[67]

Most of the studies on the trade transaction processes are industry specific supply chain based. They map the supply process primarily in the internal market and those which are focused on international trade have identified the process under a broader heading of the activities involved or at disaggregated level of a single broad step of the overall trade process. The standard procedure of process analysis is associated with identifying the steps involved in completing the cycle, starting from getting an order for export or placing an order for import and the time required to complete each stage with associated costs both in accounting and economic terms.

Value chain or supply process differs significantly from product to product, country to country and from factory to factory, even for the similar type of products within the same country depending on the farm size, method of production and other factors.[68] The business process also varies based on the mode of transportation of the items such as if the product under consideration is transported solely by land route or waterways then the process will be much different than if the same product is carried with other mode of transportation. And so the time and associated cost of transportation with export or import also differ to a large degree.

Again the length and time requirement for the same product for same purpose, export or import, might be different depending on the geographical location of the reporting firm, along with their size. And, with the advancement of transportation and information technology, business transaction process varies overtime for the same firm, even for the same product and same partner. The process will be different also for different items under

[66] UNCTAD, 'Trade transaction modeling. Trust Fund for Trade Facilitation Negotiations' (2007) *Technical Note No. 20* <http://r0.unctad.org/ttl/technical-notes/TN20_TradeTransactionModelling.pdf> (accessed on 15 June 2012).

[67] UNNExT, UNESCAP and UNECE, *Business Process Analysis Guide to Simplify Trade Procedures* (United Nations, 2009) 5.

[68] Nathan Associates Inc. and Werner International, 'Factory-Level Value Chain Analysis of Cambodia's Apparel Industry' (2007) 29.

a broad industry category. Hence, it is required to analyse the process for any particular product with their specific trading partner.

1.4.4 Findings from Literature Review

The above review of relevant literature reveals the following gaps in the context of the chosen area of research:

- Limited number of academic works in the selected area
- Absence of analytical review of the WTO TRIPS Agreement from the perspective of border enforcement of IPR regulations
- Absence of studies focusing on the nexus between customs reform/automation and IPR protection
- Lack of research studies exploring the linkages between TRIPS-Plus measures and trade facilitation

In view of the identified gaps in the existing literature, the key objectives of the present study are to:

- Analyse the WTO TRIPS Agreement from the perspective of 'Border Measures';
- Track historical events that compelled nations to adopt policies to deter IPR violation;
- Understand policy orientation in the developed and developing countries in prioritising strategies towards strengthening enforcement of IPR regulations at the international border;
- Examine the economic and social impacts of border infringement of IPRs;
- Investigate the extent to which 'Border Measures' can prevent IPR infringement and facilitate international trade;
- Critically analyse the role of WTO, WCO, WIPO and relevant multilateral and regional agencies in ensuring border enforcement of IPRs; and
- Articulate a set of policy recommendations that could be taken into consideration by relevant stakeholders to ensure better application of the WTO TRIPS Agreement in enhancing greater IPR protection in international trade.

1.5 Research Questions

Taking cognisance of the importance of border enforcement of IPRs in ensuring a conducive environment for the conduct of international trade, the present research attempts to answer the following central question to achieve the above study objectives: What are the implications of 'Border Measures', specified under the WTO TRIPS Agreement, for facilitating international trade?

The central research question, in its current form, provides avenues to explore a number of issues relating to doctrinal, empirical and normative diagnosis. It is in this context that the central research question has been fragmented into several specific research questions to address each issue from its relevant viewpoint.

a. How can border enforcement of IPRs facilitate international trade?
b. What are the implications of border infringement of IPRs for international trade?
c. What is the relationship between TRIPS, TRIPS-Plus measures and trade facilitation?
d. Do Articles 51-60 of the WTO TRIPS Agreement cover all the issues relating to protecting infringement of IPR at the national borders and facilitate international trade?
e. What is the role of customs in ensuring enforcement of IPRs in the conduct of international trade?
f. What policy measures (such as customs reform and modernisation, technical assistance and capacity building, technology transfer) need to be taken to ensure better application of the WTO TRIPS Agreement and enhance greater IPR protection to facilitate international trade?

1.6 Methodological Framework and Outline of the Study

With a view to answering the above questions, the following methodological framework will be applied for the research:

- ***Doctrinal Analysis***: Examining the WTO TRIPS Agreement vis-à-vis other relevant multilateral treaties and conventions including the Rome Convention, Paris Convention, etc.

- ***Empirical Analysis***: The study will also include empirical research by way of analysing impacts of 'Border Measures' on facilitating international trade from both economic and social perspectives.
- ***Normative Analysis***: Articulating recommendations for reform and refinement of relevant international and national laws. In addition, policy recommendations will also be made for other stakeholders including the business community.

In its current form, the present research is expected to delve mostly on secondary sources to collate relevant data and information required for the analyses. The choice of the methodological framework for the thesis can be attributed to the nature of the issues which will be addressed in various chapters. Another key component of the exercise is to maintain a link between the questions and the objectives articulated above. The following discussion will highlight the envisaged reflection of the chosen methodological framework throughout different chapters of the thesis.

Chapter 2 of the thesis is designed to explore the nexus between the concepts of trade facilitation and TRIPS. In doing so, this chapter will provide answers to the specific research questions 'a' and 'b' articulated above. Furthermore, realising the significance of TRIPS-Plus measures in the context of the current research, question 'c' will also be addressed in the chapter. The methodological choice in this regard is empirical analysis. However, some degree of doctrinal analysis will also be applied here in the context of examining some aspects of the WTO-TRIPS agreement which are related to facilitation of international trade. This chapter will further focus on investigating the extent to which 'Border Measures' can facilitate international trade. This essentially calls for application of rigorous empirical research from a qualitative perspective.

As a follow-up of the preceding discussions, *Chapter 3*of the thesis is designed to explore the issue of 'Border Measures' as articulated under the Articles 51-60 of the WTO-TRIPS agreement. The specific research question to be answered in this chapter is whether these Articles of the TRIPS agreement cover all the issues that are relevant to ensuring border enforcement of IPR regulations and enhancing trade facilitation. This is a doctrinal analysis which calls for careful scrutiny of the specific Articles of the WTO-TRIPS agreement. In addition, legal documents of such other international agencies as the WCO

and the WIPO will also be carefully analysed to ensure wider acceptability of the arguments that will be put forward from the analyses presented in this chapter.

Building on the analyses presented in chapters 2 and 3, the next two chapters (such as Chapters 4 and 5) will cover issues which will be dealt with empirical analyses. To begin with, *Chapter 4* will attempt to provide a wider discussion on the role of customs as a border agency that has the responsibility of protecting IPR infringement at the international borders. The key research question to be addressed in this context relates to the role of customs in IPR protection from the perspective of international trade. To this end, relevant academic literature, as well as government documents (including official websites of different customs authorities), will be explored. Impact of customs modernisation on ensuring effective border enforcement of IPR regulations is another issue which will be broadly discussed in this section. In view of this, various customs modernisation projects carried out by the WTO, the World Bank, UNCTAD, UNESCAP and other like-minded organisations will be analysed. The objective of this exercise is to underscore the nature, extent and efficacy of initiatives put into enhancing the vigilance of customs authority with the purpose of trade facilitation through border protection of IPR regulations. The Revised Kyoto Convention (RKC) has been critically analysed in this section in light of the WTO-TRIPS and the WCO instruments.

In *Chapter 5*, the issue of socio-economic benefits of border enforcement of IPR will be discussed. The research questions which are relevant in this context are 'b' and 'd' articulated in the specific research questions. The attempt to answering these questions with the objective of highlighting the socio-economic benefits of IPR enforcement at the international borders requires empirical analysis of the subject matter. This chapter also takes into consideration the recently concluded Trans-Pacific Partnership (TPP) Agreement as well as the forthcoming Agreement on Trans-Atlantic Trade and Investment Partnership (TTIP). Once again, this is a qualitative analysis which will depend on secondary sources of information for the purpose of developing necessary arguments. A critical issue to be highlighted and analysed in this chapter is the nature and extent of counterfeit trade at a global scale.

Finally, the last chapter of the thesis will present concluding remarks which will draw on the discussions presented in the preceding sections. The key focus of this chapter will be

the policy recommendations in the context of ensuring greater trade facilitation through effective border enforcement of IPR regulations. The question to be answered in this chapter is: What policy measures (such as customs reform and modernisation, technical assistance and capacity building, technology transfer) need to be taken to ensure better application of the WTO TRIPS Agreement and enhance greater IPR protection in international trade? As the question is normative in nature, the answer will also be in the form of normative analysis. In doing so, specific roles of different stakeholders groups (such as customs authority, trading community, other relevant government agencies, international development agencies, etc.) will be articulated in this chapter. The recommendations have been presented under specific headings for the ease of reading. These include recommendations in the area of trade facilitation; risk management; dispute settlement procedures under the WTO; technical assistance and capacity building' technology transfer; administrative enforcement; and judicial enforcement.

1.7 Outcome and Contributions of the Research

The specific objective of the research is to strengthen border enforcement of IPR regulations to enhance gains from trade facilitation. To this end, existing measures for protecting IPR infringement and initiatives for trade facilitation adopted by the international trading community are scrutinised. All the possible linkages between these two elements are clarified by way of proposing elimination of redundant and obsolete measures and legal provisions. In view of this, the specific contribution of the research is the initiation of a pioneering work which is likely to inspire the academic community to undertake further analytical studies on the relevant subject matter. This is particularly significant in view of the dearth of analytical works on the nexus between trade facilitation and border enforcement of IPR regulations. Hence, the overall outcome of the research can be summarised in the following manner:

- Enriching the existing knowledge in the area by way of preparation of an academic paper addressing the critical issues relating to impact of WTO TRIPS Agreement on border enforcement of IPR regulations and how reform and modernisation can facilitate further strengthening of this role;
- Providing understanding of the role of trade facilitation on border enforcement of IPRs and *vice-versa*; and

- Articulating a detailed outline of the roles of public and private sectors in designing policies to resist IPR infringement.

CHAPTER 2

TRADE FACILITATION, TRIPS AND IPR PROTECTION: LINKS AND MISSING LINKS

2.1 Introduction

Trade facilitation is now recognised as a key driving factor in determining export competitiveness of a country. For any member country of the international trading system, which is being increasingly integrated into the global economy by way of export and import of goods and services, it is crucial that trade is 'facilitated' through appropriate measures. Hence, countries' ability to ensure strengthened global integration of their economies depends on the efficacy of such measures. The World Trade Organization (WTO) Agreement on Trade Facilitation of December 2013 further strengthens this rationale.[1]

While the importance of trade facilitation has been growing with the pace of globalisation, issues like IPR infringement continues to pose challenges for law enforcement agencies to ensure a secure international trading regime. As is known, infringement of different forms of IPRs, such as copyright and trademark is a regular form of illicit trade.[2] Consequences of such illegal trade do not confine themselves to only loss of revenue for the government.[3] The resultant impacts are much more severe and diverse in scope and magnitude. The effects can be economic, social, ethical/moral, institutional, and, sometimes, political.[4] It is in view of such wide range of negative impacts of IPR infringement in international trade that the traditional concept of trade facilitation is now facing multifaceted challenges in terms of its operational modalities and effectiveness of existing measures.

---

[1] The Bali Ministerial Conference of the WTO adopted the Agreement on Trade Facilitation on 7 December 2013. This gives the more than two decades-long negotiations a final shape in the form of the Agreement.

[2] Hal Martin, 'Enforcing Intellectual Property Rights: Estimating the Optimal Level of Enforcing Patent Protection' (2010) 19 *Issues in Political Economy* 104.

[3] T.P. Trainer, *Border Enforcement of Intellectual Property* (Oceania Publications, Inc., 2000) 3; P. Goldstein, *Intellectual Property: The Tough New Realities That Could Make or Break Your Business* (Penguin Group US, 2007) 32.

[4] Stijn Hoorens et al, 'Measuring IPR infringements in the internal market: Development of a new approach to estimating the impact of infringements on sales' (European Commission, 2012) 17-26.

In light of the above, it is imperative to discuss the issue of trade facilitation and its relationship with Trade Related Aspects of Intellectual Property Rights (TRIPS) and intellectual property right (IPR) infringement in details. The following discussion, thus, presents a detailed explanation of this complex nexus to highlight the central factors connecting them. In doing so, the discussions begin with a background of trade facilitation negotiations under the ambit of the WTO. The objective of this exercise is to track down the development that has given the issue of trade facilitation the shape of a multilateral agreement within the ambit of the WTO. Discussion then focuses on the scope of trade facilitation measures under other multilateral, intergovernmental, and regional and bilateral fora. The second part of this chapter investigates into the extent to which the international community pledged to protect IPRs in international trade. Attempts are also made to link the issue of IPR enforcement within the scope of trade facilitation, where relevant.

2.2 Trade Facilitation and International Community

For traders acting globally, and especially small and medium sized enterprises (SME), the number and complexity of national regulations alone constitute trade barriers. A greater concern is that not only the number of required documentation and applicable procedures is increasing, but that they vary substantially from region to region and from country to country.[5] Both the measures that enterprises have to put in place in order to comply with national and foreign regulations as well as the long clearance time at borders are important cost factors.

Trade facilitation as a comprehensive approach to facilitating global trade in goods by reforming customs procedure was added to the WTO's agenda at its 1st Ministerial Conference in Singapore in 1996. Attention was drawn to the subject again in 2001 when this somewhat broad mandate was specified in the Ministerial Declaration launching the Doha Round.

Given its long history in the General Agreement on Tariff and Trade (GATT), it might seem surprising that bringing trade facilitation into the Doha Development Round (DDR) should have proved to be so controversial,- but it was. When the DDR was launched in

[5] Carolin Eve Bolhöfer, 'Trade Facilitation - WTO Law and its Revision to Facilitate Global Trade in Goods' (2007) 2(11/12) *Global Trade and Customs Journal* 385.

2001, trade facilitation was just short of being included in the negotiating mandate. Nevertheless, trade facilitation made its way into the DDR with commitments by the member countries to continue work on improving and clarifying the GATT Articles V, VIII and X. Article I of the GATT is also considered to be relevant to the issue of trade facilitation. Table 2.1 provides a summarised overview of the contents of the abovementioned GATT Articles.

Table 2.1

Existing GATT Trade Facilitation-Related Articles

Article I Most-favoured nation (MFN) treatment	Requires that imports and exports must receive non-discriminatory treatment in all WTO member countries in terms of the application of customs duties and procedures.
Article V Freedom of transit	Provides a basis for an environment in which the transit of goods is free from barriers to transport and discrimination among suppliers, firms, and traders from different countries.
Article VIII Fees and formalities connected with importation and exportation	Relates in general to customs clearance procedures and includes a general commitment to non-discrimination and transparency in fees and rules applied to goods crossing borders.
Article X Publication and administration of trade regulations	Contains general commitments to assist in ensuring timely publication of regulations regarding imports, including fees, customs valuation procedures, and other rules. It also provides general obligations to maintain transparent administrative procedures for review of disputes in customs.

Source: WTO, 2002[6]

[6] WTO, 'Trade Facilitation Issues in the Doha Ministerial Declaration: Review of the GATT Articles' (2002) <http://docsonline.wto.org/Dol2FE/Pages/FormerScriptedSearch/directdoc.aspx?DDFDocuments/t/G/C/W426.doc> (accessed on 24 February 2012).

Although trade facilitation apparently looks as a new agenda within the WTO system, in fact, it is not new within the context of trade negotiations or to other international organisations. For example, the United Nations (UN) and its affiliated commissions and institutions (such as UNCTAD and UNECE) as well as other specialised institutions such as the WCO have been working on trade facilitation for over half a century.[7] Trade facilitation was very much a part of the GATT since its inception.[8] However, the issue gathered momentum when it was brought under the mandate of negotiations in the 1996 Singapore Ministerial.

2.2.1 WTO Negotiations on Trade Facilitation: Creating the Platform

Singapore Ministerial

The 1996 Singapore Ministerial Declaration established working groups to analyse issues related to investment, competition policy and transparency in government procurement. It also directed the Council for Trade in Goods (CTG) to 'undertake exploratory and analytical work […] on the simplification of trade procedures [emphasis given] in order to assess the scope for WTO rules in this area.'[9] Hence, there was a clear sense of determination in terms of facilitating trade at a global level among the WTO Member countries. The above four issues are popularly known as the *Singapore Issues*. With the passage of time, the rules-based organisation became so hard-pressed with such issues as non-tariff barriers (NTBs) in goods and services as well as a headlock in the negotiations on agricultural issues, that trade facilitation seemed to have been denied of its appropriate importance. Nevertheless, thanks to the determination of the member countries, particularly the developing and least-developed ones,[10] the momentum was not lost. Hence, the issue of trade facilitation continued to be dealt with in the subsequent round of

[7] UNCTAD is the principal body of the UN system that deals with the issues of trade facilitation. As for WCO, the key focus has always been to make trading practices easier by improving Customs administration in the member countries. More information on the areas of work of UNCTAD and WCO are available respectively on < http://unctad.org/en/pages/DITC/DITC.aspx > and www.wcoomd.org.

[8] WTO, 'Singapore Ministerial Declaration' (1996) <http://www.wto.org/english/thewto_e/minist_e/min96_e/wtodec_e.htm> (accessed on 12 December 2008) para. 21.

[9] Ibid, para. 21.

[10] Robert E. Baldwin, 'Failure of the WTO Ministerial Conference at Cancun: Reasons and Remedies' (2004) <http://www.fordschool.umich.edu/rsie/Conferences/CGP/May2004Papers/Baldwin.pdf> (accessed on 18 January 2012) 4.

negotiation for a universally acceptable modality to be architectured. This was further highlighted in the Declaration:

> Bearing in mind that an important aspect of WTO activities is a continuous overseeing of the implementation of various agreements, a periodic examination and updating of the WTO Work Programme is a key to enable the WTO to fulfil its objectives. In this context, we endorse the reports of the various WTO bodies.[11]

Understandably, most of the work programme articulated in the declaration originated from those of the Marrakesh Agreement establishing the WTO. While the Singapore Ministerial took note of the importance of continuing work on TRIPS and Customs valuation,[12] no linkages were established between TRIPS and the role of Customs in the enforcement of intellectual property rights (IPRs) at national borders. Furthermore, Customs role was not discussed within the scope of trade facilitation. This could be explained by the fact that even the issue of trade facilitation, at that time, was completely contained within the issues of transit (GATT Article V), fees and formalities (GATT Article VIII) and publication of rules and regulations (GATT Article X).

Doha Ministerial

The Doha Ministerial in November 2001 was the major milestone in the WTO's involvement in trade facilitation, which established that negotiations on trade facilitation would take place after the Fifth Session of the Ministerial Conference in 2003 in Mexico. The Doha Declaration (Para 27), after several failed texts, finally agreed on the following:

> Recognizing the case for further expediting the movement, release and clearance of goods, including goods in transit, and the need for enhanced technical assistance and capacity building in this area, we agree that negotiations will take place after the Fifth Session of the Ministerial Conference on the basis of a decision to be taken, by explicit consensus, at that session on modalities of negotiations. In the period until the Fifth Session, the Council for Trade in Goods shall review and as appropriate, clarify and improve relevant aspects of Articles V, VIII and X of the GATT 1994 and identify the trade facilitation needs and

[11] WTO, above n 8, para. 19.

[12] Ibid.

> priorities of members, in particular developing and least developed countries. We commit ourselves to ensuring adequate technical assistance and support for capacity building in this area.[13]

As is evident from the text, members of the international trading community were in consensus to move ahead and take all possible measures to ensure trade facilitation for economic growth. However, once again, the importance of border enforcement of IPRs was sidelined or ignored. Trade facilitation appeared to have been confined to the scope of customs role in valuation of the imported products. As the Declaration states:

> [The Ministerial Conference] [u]nderlines the importance of strengthening cooperation between the customs administrations of Members in the prevention of customs fraud. In this regard, it is agreed that, further to the 1994 Ministerial Decision Regarding Cases Where Customs Administrations Have Reasons to Doubt the Truth or Accuracy of the Declared Value, when the customs administration of an importing Member has reasonable grounds to doubt the truth or accuracy of the declared value, it may seek assistance from the customs administration of an exporting Member on the value of the good concerned. In such cases, the exporting Member shall offer cooperation and assistance, consistent with its domestic laws and procedures, including furnishing information on the export value of the good concerned. Any information provided in this context shall be treated in accordance with Article 10 of the Customs Valuation Agreement. Furthermore, recognizing the legitimate concerns expressed by the customs administrations of several importing Members on the accuracy of the declared value, the Committee on Customs Valuation is directed to identify and assess practical means to address such concerns, including the exchange of information on export values and to report to the General Council by the end of 2002 at the latest.[14]

Even the term Customs fraud, as mentioned in the above text, concentrated solely on valuation matters. When it came of implementation related issues, the concern was once again focused on Customs valuation, and not on any aspect relating to Customs' role in

---

[13] WTO, 'Doha WTO Ministerial 2001: Ministerial Declaration' (2001) <http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm> (accessed on 12 February 2007) para. 27.

[14] Ibid 37.

border enforcement of IPRs.[15] Hence, the distance between these two issues continued to maintain a formidable gap.

One may also look at the Doha Declaration on TRIPS and Public Health in the context of protection of national interest by the Member countries. However, nothing more than disappointment can be accumulated even from this agreement. While the importance of TRIPS has been repeatedly highlighted in regards to medicines, the text failed to address the significance of combating infringement of IPRs in international trade as a tool to ensure health and safety of the citizens of a country.[16]

Cancun Ministerial

In 2003, WTO continued its work on trade facilitation under the Doha mandate and on the three core agenda items: (i) GATT Articles V, VIII and X; (ii) trade facilitation needs and priorities of members, especially of developing and least developed countries; and (iii) technical assistance and capacity building. The draft Cancun Ministerial Declaration noted that, while 'considerable progress' was made, 'more work needs to be done in some key areas to enable us to proceed towards the conclusion of the negotiations in fulfilment of the commitments we took at Doha'.[17] Therefore, it was evident that Ministers instructed their officials to continue working on outstanding issues with a renewed sense of urgency and purpose and taking fully into account all the views they have expressed in the Conference.

Since the Cancun collapse,[18] informal meetings at the Heads of Delegation level discussed potential approaches to the Singapore issues. An enthusiasm to discuss trade facilitation

[15] Ibid 70.

[16] Ibid 24-26.

[17] WTO, 'Draft Cancun Ministerial Text' (2003) <http://www.wto.org/english/thewto_e/minist_e/min03_e/draft_decl_e.htm> (accessed on 10 January 2009) para. 21.

[18] The reasons for the collapse of the Cancun Ministerial are considered to be various. While some argue that it was the lack of consensus among the Members in finalising the negotiating modalities for the Singapore issues, others blamed disagreement over agriculture issues (such as trade barriers, export subsidies and domestic support policies). More discussion on the issue can be found in Steve Woolcock, 'The Singapore Issues in Cancun: a failed negotiation ploy or a litmus test for global governance? ' (Undated) <http://www.lse.ac.uk/internationalRelations/centresandunits/ITPU/docs/woolcocksingaporeissues.pdf> 2-3 (accessed on 18 January 2012).

emerged by the first week of December 2003.[19] Bangladesh, on behalf of the least developed country (LDC) group, supported by 15 other developing countries including China and India, submitted a communication on the Singapore issues requesting that investment, competition and transparency in government procurement be dropped.[20] However, lack of consensus among the Members of the apex trade body inspired the Chair to suggest continuing discussions on issues like trade facilitation and transparency in government procurement.[21] The debate carried on until April 2004, when a *core-group* of developing countries and LDCs opined that they were prepared to discuss trade facilitation, but only for the purpose of clarifying substantive modalities for negotiations.[22] In addition to insisting that negotiations must be based on 'explicit consensus', they called for the remaining Singapore issues to be dropped altogether from the WTO work programme, and expressed a desire to see prior movement in issues such as agriculture before starting discussions on trade facilitation.[23] That was perhaps a key momentum toward continuing work on trade facilitation under the DDR. Hence, while the Cancun debacle failed to produce any concrete work programme for trade facilitation negotiations, commitment on the part of the LDCs kept the issue very much alive. This was clearly reflected by the articulation of the July Package of 2004.

July Package

The 'July Package' adopted by the General Council on 1 August 2004, called for negotiations on trade facilitation, while other Singapore Issues (competition, investment and transparency in government procurement) had been dropped from the Doha mandate.[24] Annex D to the July Package elaborated on the modalities for negotiations on trade facilitation, which stipulated that negotiations 'shall aim to clarify and improve relevant aspects of Articles V, VIII and X of the GATT 1994 with a view to further expediting the

[19] WTO, 'Communication on Singapore Issues' (2003) <www.wto.org> (accessed on 11 January 2009).

[20] Ibid.

[21] Baldwin, above n 10, 16 (accessed on 12 February 2012).

[22] WTO, above n 19.

[23] Ibid.

[24] WTO, 'Text of the 'July package' — the General Council's post-Cancún decision' (2004) <http://www.wto.org/english/tratop_e/dda_e/draft_text_gc_dg_31july04_e.htm> (accessed on 20 February 2013).

movement, release and clearance of goods, including goods in transit.' Annex D further asks Members 'to identify their trade facilitation needs and priorities, particularly those of developing and least-developed countries' and to 'address the concerns of these countries related to cost implications of proposed measures'. [25] It goes on to say that technical assistance and support for capacity-building is 'vital to enable them to fully participate in and benefit from the negotiations.'[26]This relates primarily to Customs activities, including those activities performed by Customs on behalf of, or in cooperation with, other Government agencies. In particular it highlights the need for 'effective cooperation between customs or any other appropriate authorities on trade facilitation and customs compliance issues' such as simplification of documents, maintaining cooperation with relevant government agencies, etc. This reference includes appropriate national administrative authorities and, therefore, means that each Member's individual circumstances and governmental structures should be taken into account when framing responses to trade facilitation issues.

The July Package, thus, enshrined a focus on Customs compliance issues. Being optimistic, it can be assumed that this would have incorporated the aspects of Customs role relevant for enforcement of IPR at national border. Then again one may argue that the issue of compliance, as mentioned in the July Package, could only be related to standards and regulations.

At its first meeting after the July session of the General Council, a Negotiating Group on Trade Facilitation was established and negotiations started as envisaged in the second half of 2004. Besides the aim of clarifying and improving relevant aspects of Articles V, VIII and X of the GATT 1994, provisions for an effective cooperation between customs authorities as well as between Customs and other government agencies are envisaged and customs compliance issues are looked at. Moreover, different international organisations have initiated programs in order to help countries to identify their trade needs and priorities. In July 2006, trade facilitation talks were suspended after they appeared to be one of the few issues of the Doha Round negotiations that were heading for agreement on schedule. Members still needed to agree on which of the provisions for simplifying

[25] Ibid, Annex D.

[26] Ibid.

customs procedures and cutting trade-related red tape they wanted to include, and which to leave out.

Hong Kong Ministerial

The Ministerial declaration stated that:

> We recall and reaffirm the mandate and modalities for negotiations on Trade Facilitation contained in Annex D of the Decision adopted by the General Council on 1 August 2004. We note with appreciation the report of the Negotiating Group, attached in Annex E to this document, and the comments made by our delegations on that report as reflected in document TN/TF/M/11. We endorse the recommendations contained in paragraphs 3, 4, 5, 6 and 7 of the report. [27]

In general, the Hong Kong Ministerial Declaration concluded in expressing reaffirmation to the promises made in the July Package. Hence, the expectation of the global community relied heavily on the future rounds of negotiations as far as a widely acceptable agreement was concerned.

The endorsement, however, was not decisive as the matter was referred to the working committee. This was due to the fact that the Hong Kong Conference was more concerned not to allow it to be like Cancun than to work out and finalise any specific deal.

One is compelled to think as to what are the underlying reasons that deter WTO members from entering into a universal agreement of TRIPS that could be accepted by all parties. It will not be an exaggeration to say that conflicting interests of countries at different levels of development have been playing the devil's role in this context.

From Hong Kong to Bali

As the agreement by explicit consensus to launch negotiations on trade facilitation makes the issue part of the Doha single undertaking,[28] the negotiations would conclude when the

[27] WTO, 'Ministerial Declaration' (2005) <http://www.wto.org/english/thewto_e/minist_e/min05_e/final_text_e.htm> (accessed on 20 February 2013).

[28] The concept of single undertaking is the basis of consensus in the WTO. It implies that nothing is agreed until everything is agreed. One may also call it a 'take on, take all' rule of the WTO.

Doha Round does. Nonetheless, the world has witnessed, in recent times, that the WTO has been in a rather fragile condition in terms of implementing its own mandates and meeting the timelines. This is particularly manifested by the fact that no Ministerial was held in 2007. Furthermore, the Seventh and Eighth Ministerial Conferences of the WTO, both held in Geneva respectively in 2009 and 2011, issued no Ministerial Declarations. Although there have been repeated commitments by countries to move forward with the Doha Development Round negotiations, progress in reality has continued to fall short of expectations.

Finally in December 2013, the world witnessed a revival of the WTO in terms of its approaches and commitments towards strengthening the world trading system. Perhaps of utmost interest from the Ninth Ministerial was the Agreement on Trade Facilitation. The Agreement, in its preamble, emphasises on the importance of cooperation among countries with regard to trade facilitation and customs compliance issues.[29] The Agreement underscores the role and importance of Customs administration in the context of Articles V, VIII and X of the GATT. These include administrative responsibilities to judicial functions of Customs as a border enforcement agency. Detailed discussions on the WTO Agreement on Trade Facilitation are presented in Chapters 3 and 4.

The Agreement also emphasises on border agency cooperation which is considered to be vital in the context of dealing with IPR infringement at national borders. It notes,

> A Member shall ensure that its authorities and agencies responsible for border controls and procedures dealing with the importation, exportation and transit of goods cooperate with one another and coordinate their activities in order to facilitate trade.[30]

Nonetheless, given the magnitude of IPR violations at national borders, one would have expected more in-depth focus on the issue in the Agreement. This may, however, be explained that perhaps the policy makers were reluctant to repeat the TRIPS provision on border protection in the Trade Facilitation Agreement.

---

[29] WTO, 'Agreement on Trade Facilitation' (2013) <http://wto.org/english/thewto_e/minist_e/mc9_e/desci36_e.htm> (accessed on 12 January 2014).

[30] Ibid.

Progress from Bali to Nairobi

On 19 December 2015, the WTO adopted the Nairobi Declaration after holding the 10th WTO Ministerial Meeting in Nairobi, Kenya. The run-up to the Nairobi ministerial conference has, however, shown some of the political constraints surrounding issues of critical concern for both the developed and developing countries. These included trade in goods and services, trade facilitation and protection of intellectual property rights. As was anticipated, negotiations during the Nairobi meet concentrated mostly on market access issues. However, members reiterated their firm commitment towards realising the goals of Agreement on Trade Facilitation as well as making TRIPS more development oriented for the least developed countries. The Nairobi declaration states,

> We reiterate that the WTO shall remain the main forum to negotiate multilateral trade rules. We have made some progress in the negotiations. At our Fourth Session, we launched for the first time in the history of the GATT and the WTO, a Development Round; the Doha Work Programme. We recall the adoption of the Protocol Amending the TRIPS Agreement. We draw particular attention to the adoption of the Agreement on Trade Facilitation (TFA) as the first multilateral agreement since the establishment of the WTO. We commend those Members that have already accepted the respective Protocols and look forward to additional acceptances. We welcome the Decisions and the Declaration listed in Parts I and II of the Bali Ministerial Declaration, and the subsequent General Council Decision of November 2014 on Public Stockholding for Food Security Purposes. We note, however, that much less progress has been made in Agriculture and other central components of the WTO's negotiating agenda, namely NAMA, Services, Rules and Development.[31]

While the level of commitment of the Member countries surely manifests much enthusiasm, differences in interests and development priorities still remain an issue of utmost concern in reaping the full benefits of the DDR Negotiations. The developing and least developed countries will need to closely monitor future developments in this area of negotiation.

[31] WTO, 'Nairobi Ministerial Declaration' (WTO, 2015) <https://www.wto.org/english/thewto_e/minist_e/mc10_e/nairobipackage_e.htm> (accessed on 28 April 2013).

2.2.2 Trade Facilitation beyond WTO: Initiatives at the Wider Front

Work on trade facilitation has taken place outside of the WTO for a number of years and continues to take place in various arenas. A number of WTO members have pointed the importance of acknowledging the work that is taking place in this field and incorporating results into the WTO trade facilitation agreement so as not to unnecessarily duplicate these efforts. The WCO,[32] and the United Nations are some of the forums where trade facilitation studies and projects have been and continue to be pursued. Regional trade initiatives have also begun to include trade facilitation on their agendas. Some of the works in these forums are outlined below.

World Customs Organization (WCO)

The WCO is, perhaps, the international organisation that has assumed the most important role in the area of trade facilitation for a long time. It works to enhance the effectiveness and efficiency of customs administrations through the oversight of international instruments for harmonisation and simplification of customs systems, reinforcing efforts to maintain compliance with trade policies and the promotion of communication and cooperation among Members' customs administrations and related international organisations.[33] Among the various conventions that the WCO oversees is the *International Convention on the Simplification and Harmonisation of Customs Procedures* (Kyoto Convention), which outlines standards for implementation considered necessary for harmonisation and simplification, as well as recommended practices that are viewed as important measures for the improvement of customs administration.[34]

The Kyoto Convention was revised in 1999 to reflect the changes that have occurred in customs administration and international trade due to the introduction of modern technologies. The WCO also oversees the *Customs Convention on Temporary Admission* (Istanbul Convention) dealing with the temporary admission of goods or trade samples for

[32] The WCO is an intergovernmental organisation based in Brussels, Belgium that develops international Customs conventions, instruments, best practices, guidelines and tools. The WCO's members are Customs administrations from around the world.

[33] WCO, *World Customs Organization* <http://www.wcoomd.org/> (accessed on 30 January 2013).

[34] WCO, *The Revised Kyoto Convention* WCO <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_conv.aspx> (accessed on 18 January 2008).

exhibition or demonstration purposes.[35] The *International Convention on the Harmonised Commodity Description and Coding System* is also administered by the WCO and contributes to trade facilitation by providing a common basis for commodity classification and goods valuation for duty purposes. Almost all members of the WTO base their schedules of goods on the Harmonised System (HS). The WCO *Arusha Declaration Concerning Integrity in Customs* (1993) promotes standardised customs procedures and automation as a method of decreasing malpractice and corruption.[36]

Over the years a number of *standards* were developed under the auspices of the WCO, but insufficient attention is being given to the implementation and respect of these standards.[37] In particular, the entry into force of the WCO Revised Kyoto Convention in February 2006 requires a faster accession by more contracting parties to ensure its effective global implementation.

In response to heightened security concerns associated with international trade, the WCO is developing a number of initiatives to enhance the pre-screening of goods destined for export at national and regional levels, one result is the *WCO Framework of Standards to secure and facilitate global trade* (SAFE). The WCO Framework provides for the mutual recognition of controls under certain circumstances.[38] It enables Customs administrations to adopt a broader and more comprehensive view of the global supply chain and create the opportunity to eliminate duplication and multiple reporting requirements.

The *Customs-to-Customs* reciprocal network arrangements represent an opportunity to strengthen cooperation between Customs administration and enable controls to be carried out earlier in the supply chain. The main focus of the Customs-to-Business agreements is the creation of an international system for identifying businesses that offer a high degree of

---

[35] WCO, *Istanbul Convention Administrative Committee* <http://www.wcoomd.org/en/about-us/wco-working-bodies/procedures_and_facilitation/istanbul_convention_administrative_committee.aspx> (accessed on 20 February 2008).

[36] Syed Saifuddin Hossain, 'Revised Kyoto Convention: The Best Practice Guide for Customs' (2008) 3(11/12) *Global Trade and Customs Journal* 383.

[37] Robert Ireland, 'The WCO SAFE Framework of Standards: Avoiding Excess in Global Supply Chain Security Policy' (WCO Research Paper No. 3, WCO, 2009) 5.

[38] WCO, 'SAFE: Framework of sandards to secure and facilitate global trade' (WCO, 2012) <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/~/media/55F00628A9F94827B58ECA90C0F84F7F.ashx> 2 (accessed on 18 April 2013).

compliance integrity and security guarantees in respect to their role in the supply chain. The WCO Framework is a current example of such an agreement because it sets forth the criteria by which businesses will be able to obtain a secure *Authorised Economic Operator* (AEO) status.[39] This preferential status will be a vital concept for Customs in the near future conferring a number of business benefits including more rapid clearance turnaround times for low-risk cargo, improved security levels, optimised supply chain costs, and enhanced compliance reputation with Customs and its related agencies.

The WCO is involved in a global customs reform and modernization (CRM) program, providing technical assistance through training and assisting domestic customs authorities to implement changes that have been established as necessary by a customs needs analysis. In addition, the WCO administers a great number of programs, guidelines, resolutions, norms, recommendations, and conventions. However, participation by WCO members in the CRM is largely on a voluntary basis, and, unlike the WTO, the WCO lacks a formal process for dispute settlement.

The United Nations (UN)

Among the many United Nations organizations involved in trade facilitation programs, the United Nations Conference on Trade and Development (UNCTAD) has played an important role in developing the Automated System for Customs Data (ASYCUDA) - an electronic filing system designed for use by traders and customs.[40] The system facilitates processing of customs declarations and accounting procedures, and serves as a database for statistical economic analysis. ASYCUDA is used in more than 70 developing countries. UNCTAD has also done work in the transport sector, including initiatives for port development; development of the Advance Cargo Information System (ACIS), an electronic transport management tool; and promoting the formation of committees to promote dialogue among all stakeholders in the transport sector in order to create efficient policies for the enhancement of trade facilitation.[41] UNCTAD works in cooperation with

[39] Ibid 3.

[40] UNCTAD, *ASYCUDA* <https://www.asycuda.org/> (accessed on 30 March 2012).

[41] Debapriya Bhattacharya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006) 18-22.

other international organizations to provide training and support for the implementation of the system.

In 1994, the Columbus Declaration was adopted at the UN-hosted International Symposium on Trade Efficiency. The declaration is a set of detailed recommendations that have become important guidelines in the development of trade facilitation. The symposium also resulted in the establishment of UNCTAD's Trade Point Global Network.[42] The objective of the program is to establish 180 trade points in 109 countries that will be electronically linked to national centres for trade facilitation providing trade-related information and data. One outcome of the program was the establishment in 2000 of the World Trade Point Federation - an international non-governmental organization that assists small and medium enterprises by providing information on international trade and the use of electronic commerce technologies.[43]

Within the United Nations system, the *Economic Commission for Europe* (ECE) has worked on trade facilitation issues since 1960. In 1997, the *UN Centre for Facilitation of Procedures and Practices for Administration, Commerce, and Transportation* (UN-CEFACT) was established to work towards harmonisation and automation of customs procedures and information requirements. One of the main focuses of its work is electronic data interchange (EDI), which has had an important impact on reducing customs paperwork and exchanging trade-related information between parties to international trade transactions. CEFACT has also produced a number of recommendations on trade facilitation, some of which have been adopted by the International Standards Organisation (ISO).[44]

The Economic and Social Commission for Asia and the Pacific (ESCAP) of the United Nations has also played a role in the area of trade facilitation by simplifying import and export documentations and procedural requirements in the region. ESCAP projects have

[42] United Nations, 'United Nations International Symposium on Trade Efficiency' (1994) <http://www.un.org/documents/ga/res/49/a49r101.htm> (accessed on 16 June 2012).

[43] World Trade Point Federation, <http://www.wtpfed.org > (accessed on 12 February 2013).

[44] United Nations, *Trade Facilitation Handbook for the Greater Mekong Subregion* (UN, 2002) 11.

included the alignment of trade documents for Cambodia, Myanmar and Vietnam, as well as India, Nepal and Pakistan.[45]

Regional and Bilateral Initiatives

A number of regional and bilateral initiatives have also been launched in the area of trade facilitation. These inclusively include:

Asia-Pacific Economic Cooperation (APEC): Members of the APEC have made commitments to standardising customs requirements in the region.[46] They have agreed to align national norms with international standards and to allow for mutual recognition of each other's national standards. The APEC has also emphasised the importance of using technology to facilitate the movement of frequent travellers. Adoption of such measures clearly indicates the intention of the member countries to facilitate trade within the Asia-Pacific region.

European Union (EU): The EU has concluded agreements covering the simplification and computerisation of customs administrations, free flow of trade, and a common approach to customs valuation among its members.[47] A broader discussion on the various Customs and trade facilitation related measures adopted and implemented by the EU is presented in Chapter 4.

Besides, two initiatives have been established among the parties to the North America Free Trade Agreement (NAFTA). The Canada-US Shared Border Accord aims to create a common set of objectives for a cooperative approach to trade facilitation and trade

[45] Ibid.

[46]APEC is an intergovernmental organisation of 21 economies: Australia, Brunei Darussalam, Canada, Chile, People's Republic of China, Hong Kong, China, Indonesia, Japan, Republic of Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, The Philippines, Russia, Singapore, Chinese Taipei, Thailand, The United States, and Viet Nam. Details of these initiatives can be found in the APEC Customs Best Practices Handbook (available on http://www.asianlii.org/apec/other/agrmt/acphsocp727/).

[47] European Union's Modernised Customs Code and vision for a paperless trade and customs environment (COM(2003)452 final) is one such example. Besides, the European Union has largely removed the internal borders between its 27 members. Operating as a customs union, they share one common external tariff and subscribe to the same custom legislation.

compliance.[48] The Heads of Customs Conference is a forum for regular trilateral meetings between Canada, Mexico and the United States to review customs issues and examine ways to facilitate the cross-border movement of goods.[49]

In April 2001, Canada and Costa Rica signed a Free Trade Agreement that includes a chapter on trade facilitation.[50] The aim of the chapter is to make trade procedures more efficient and to reduce the number of formalities and costs to Canadian and Costa Rican businesses. The two countries have consented to base procedures on international standards and incorporate mechanisms such as consultations, cooperation, technical assistance, the exchange of information, and recommendations for best practices.

Trade facilitation has also been an important topic of the Free Trade Area of the Americas (FTAA) negotiations.[51] A number of recommendations incorporating trade facilitation objectives, including those related to enhanced Customs cooperation, have also been developed under the FTAA negotiations.

The recently concluded Agreement on Trans-Pacific Partnership (TPP) has reiterated the importance of border coordination and IP protection in facilitating international trade.[52] On

[48] Minister of Public Works and Government Services Canada, 'Canada-United States Accord on Our Shared Border' (2000) <http://publications.gc.ca/collections/Collection/Ci51-95-2000E.pdf> 5 (accessed on 20 March 2012).

[49] Government of Canada, *Foreign Affairs, Trade and Development Canada* <http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/nafta-alena/2800216b.aspx?lang=en> (accessed on 11 June 2012).

[50] Part Four of the Agreement covers various aspects of trade facilitation, while Chapter 5 of Part Two details lays down the necessary provisions for effective Customs procedures between the two countries. Copy of the Agreement can be accessed at http://www.worldtradelaw.net/fta/agreements/cancosfta.pdf.

[51] Evdokia Moïsé, 'The Relationship between Regional Trade Agreements and Multilateral Trading System' (2002) <http://www.mincomes.it/semproitalia/tavolo_strategico/8_documenti/OCSE/OCSE/Contenuti/Trade_Facilitation_Regional_and_Multilateral_Trading%20System.pdf> 4 (accessed 17 June 2012).

[52] On 5 October 2015, Ministers of the 12 Trans-Pacific Partnership (TPP) countries – Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States, and Vietnam – announced conclusion of their negotiations. The result is a high-standard, ambitious, comprehensive, and balanced agreement that will promote economic growth; support the creation and retention of jobs; enhance innovation, productivity and competitiveness; raise living standards; reduce poverty in our countries; and promote transparency, good governance, and enhanced labour and environmental protections. We envision conclusion of this agreement, with its new and high standards for trade and investment in the Asia Pacific, as an important step toward our ultimate goal of open trade and regional integration across the region.

customs administration and trade facilitation, the TPP parties complemented the works of the WTO to facilitate trade, and agreed on rules to enhance the facilitation of trade, improve transparency in customs procedures, and ensure integrity in customs administration. These rules will help TPP businesses, including small- and medium-sized businesses, by encouraging smooth processing in customs and border procedures, and promote regional supply chains. TPP Parties have agreed to transparent rules, including publishing their customs laws and regulations, as well as providing for release of goods without unnecessary delay and on bond or 'payment under protest' where customs has not yet made a decision on the amount of duties or fees owed.[53] They agree to advance rulings on customs valuation and other matters that will help businesses, both large and small, trade with predictability. They also agree to disciplines on customs penalties that will help ensure these penalties are administered in an impartial and transparent manner. Due to the importance of express shipping to business sectors including small- and medium-sized companies, the TPP countries have agreed to provide expedited customs procedures for express shipments. To help counter smuggling and duty evasion, the TPP Parties agree to provide information, when requested, to help each other enforce their respective customs laws.[54] It is encouraging to see such a level of commitment from countries in different development stages.

TPP's Intellectual Property (IP) chapter covers patents, trademarks, copyrights, industrial designs, geographical indications, trade secrets, other forms of intellectual property, and enforcement of intellectual property rights, as well as areas in which Parties agree to cooperate. The IP chapter will make it easier for businesses to search, register, and protect IP rights in new markets, which is particularly important for small businesses.

The chapter establishes standards for patents, based on the WTO's TRIPS Agreement and international best practices. On trademarks, it provides protections of brand names and other signs that businesses and individuals use to distinguish their products in the marketplace. The chapter also requires certain transparency and due process safeguards with respect to the protection of new geographical indications, including for geographical

[53] DFAT, <http://dfat.gov.au/trade/agreements/tpp/outcomes-documents/Pages/summary-of-the-tpp-agreement.aspx> (accessed on 7 December 2015).

[54] Ibid.

indications recognised or protected through international agreements.[55] These include confirmation of understandings on the relationship between trademarks and geographical indications, as well as safeguards regarding the use of commonly used terms. Finally, TPP Parties agree to provide strong enforcement systems, including, for example, civil procedures, provisional measures, border measures, and criminal procedures and penalties for commercial-scale trademark counterfeiting and copyright or related rights piracy. In particular, TPP Parties will provide the legal means to prevent the misappropriation of trade secrets, and establish criminal procedures and penalties for trade secret theft, including by means of cyber-theft, and for cam-cording.

In addition to the TPP, the Trans-Atlantic Trade and Investment Partnership (TTIP) is another platform where the US and the EU have been showing commitments and efforts to create a development friendly trading environment. Various proposals put forward in the negotiating process of the TTIP include lowering costs, increasing more transparency, and reducing red tape at borders to benefit small exporters and producers even more than their larger competitors, as well as small retail, wholesale, transport, and logistics firms.[56]

A key aim of the TTIP negotiations is to boost trade by reducing unnecessary border costs and delays for traders by improving predictability, simplicity, and uniformity in border procedures. Customs and trade facilitation reforms through TTIP would make it easier for SMEs to participate in transatlantic trade and to support jobs through that trade. With regard to IP, the TTIP believes that SMEs are also leaders in innovation and creativity that drive job creation and economic growth in the transatlantic marketplace. They need strong protection of their intellectual property rights (IPR), particularly because they are often highly vulnerable to infringement of their IPR. The TTIP reaffirms the shared transatlantic commitment to strong IPR protection and enforcement for SMEs, including in our other trading partners.

The level of commitment by the international community, therefore, underpins the necessity of facilitating trade through enforcement of border protection at the national

[55] Ibid.

[56] USTR, <https://ustr.gov/sites/default/files/03142014-TTIP-opportunities-for-SMEs.pdf> (accessed on 8 December 2015).

borders. Such efforts need to be complemented by measurable actions and their long-term sustainability.

2.3 Obligation to Protect Trade-related IPRs under International Law

The preceding discussion has attempted to outline a brief background of the developments in the area of trade facilitation negotiations and initiatives taken at different levels of global community in this respect. At the international level, protection of IPR had not been standardised until 1994. During the 1980s industrial countries somewhat forced WIPO to set up an agreement on internationally standardised patent laws, which was signed mainly by developed countries.[57] Due to a lack of sanction mechanisms there was no way for WIPO to enforce this agreement until in 1994 IPR were included into GATT, which allows for trade sanctions under certain provisions.[58] Different levels of intellectual property protection can be regarded as non-tariff barriers to trade,[59] which led to the introduction of IPRs into GATT, called TRIPS. The initial pressure to include IPRs was put by developed countries whose companies suffered losses in trade because their products were illegally copied (counterfeit) and then circulated by some Third World countries. Attempts to implement enforceable mechanisms via WIPO were not successful. So the background for an initiative was to level the playing field in international property rights regulation.

The first attempts to create international agreements to protect IPR occurred in the late 19th century.[60] While these initial agreements are still in force, the global nature of IPR infringement has been changing its shape from time to time. The days when 7 out of 10 companies falling victim to counterfeiters were in the luxury goods industry are long gone. Everything has changed in the past 20 years. In 2006, luxury goods accounted for only one

[57] Susanne Droege and Birgit Soete, 'Trade-Related Intellectual Property Rights, North-South Trade, and Biological Diversity' (1998) <http://siti.feem.it/gnee/pap-abs/droege.pdf> 9 (accessed on 18 February 2013).

[58] M. G. Bhat, 'Trade-related intellectual property rights to biological resources: Socioeconomic implications for developing countries' (1996) 19 *Ecological Economics* 207.

[59] For an empirical study analysing the relationship between patent protection and trade growth, see Keith E. Maskus and Mohan Penubarti, 'How Trade-related are Intellectual Property Rights?' (1995) 39(3-4) *Journal of International Economics* 227-248.

[60] Mark Harrison, *International Customs Law PG: Study Guide* (Centre for Customs and Excise Studies, University of Canberra, 2006) 17.

percent of all the items intercepted by the 27 Customs administrations of the European Union (EU).[61]

Box 2.1

Seizure of Counterfeit Products

- Customs Authorities around the world made a total of 9,164 seizures in 2006. The value of products confiscated (measured on original price) came to more than 1.1 billion euro. One particularly successful operation that stood out was that of the customs officers of Hamburg Harbour where, within a matter of just a few weeks, 117 containers filled with counterfeit goods consisting mainly of well-known brands of sport shoes, but also including large quantities of fake luxury watches, textiles and toys, with an overall estimated value of 400 million euro (roughly US$500 million), were seized. This was the world's largest known seizure of counterfeit products.
- Between 1997 and 2007, the New Zealand Customs Services (NZCS) removed about 1.1 million counterfeit goods from the market. Customs officers intercept these items at airports, ports and the International Mail Centre in Auckland.

Source: WCO[62]

The number of IPR infringing products seized at the external borders of the EU rose from 10 million in 1998 to 253 million in 2006. Between 2005 and 2006, the US Customs and Border Protection agency reported an 86 per cent increase in the number of products intercepted. As for the Chinese Customs authorities, they have seen the number of counterfeit products seized double over the same period.[63] Box 2.1 also indicates to the

[61] Christophe Zimmermann, 'Customs and counterfeiting....taking the fight to the front line' (2007) (October) *WCO News* 12.

[62] German Customs Administration, 'Germany makes IPR a top priority' (2007) (October) *WCO News* 21; Kim Chambers, 'New Zealand's Border Protection Notice System trounces the fake trade' (2007) (October) *WCO News* 25.

[63] Zimmermann, above n 61.

efforts by Germany and New Zealand towards securing their borders by interdicting counterfeit goods.

The concern of the international community towards protecting the economy and social safety of its members has given rise to a number of multilateral agreements[64] that suggest both strategies and obligations to reverse the upward trend of this form of 'economic terrorism'.[65]

2.3.1 Protection of Trade-related IPRs under TRIPS

The preceding discussion has attempted to outline a brief background of the developments in the area of trade facilitation negotiations and initiatives taken at different levels of global community in this respect. The link between TRIPS and trade facilitation can be well grasped from the following note:

> Customs is Australia's primary border protection agency. With our partners and partner agencies, we provide a sense of security to the community and work to support Australia's environment and lifestyle.[66]

The above statement clearly underpins the role of the Australian Customs in the context of both *Customs-to-Customs* and *Customs-to-Business* concepts which are the two core elements of the Framework of Standards (SAFE) developed by the WCO.[67] While this is true for the Australian customs, the importance of such a policy is no less for other countries to identify, intercept and seize infringing goods.

---

[64] Berne Convention for the Protection of Literary and Artistic Works 1886 (Copyright); Paris Convention for the Protection of Industrial Property 1883 (Patents, designs and trade marks); Rome Convention for the Protection of Performers, Producers of phonograms and Broadcasting Organisations 1961 (Performers' rights); International Convention for the Protection of New Varieties of Plants 1961 (Plant breeders' rights); The Patent Cooperation Treaty 1970 (Patents); Madrid Agreement concerning the International Registration of Marks (Trade marks); Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs 1999 (Designs). Details on the coverage under these treaties have been discussed in Harrison, above n 60, 18.

[65] Zimmermann, above n 61, 13.

[66] Commonwealth of Australia, 'Annual Report 2006-07' (Australian Customs Services, 2007) <http://www.customs.gov.au/webdata/resources/files/AnnualReport06_07_Full.pdf> 3 (accessed on 11 April 2010).

[67] WCO, above n 38.

The Philippines has implemented the TRIPS Border Control provisions in its Customs Administrative Order No. 7-93. [68] The Bureau of Customs maintains a registry of trademarks, patents and copyrights, and other pertinent information and where sufficiently detailed description of the goods is recorded to make them readily identifiable by the Bureau of Customs. The Bureau of Customs, for monitoring purposes, has also established an alert list of persons, either provided by intellectual property owners or other sources, known or suspected to be infringing, counterfeiting or otherwise copying or simulating marks or trade-names protected under the subject laws. On the basis of the alert list or upon written request by the trademark patent and copyright owners, the Bureau of Customs shall place under alert orders shipments known or suspected to be infringing upon their trademarks or copyrights. However, the said owners shall bear expenses if their information turns out to be negative. For this purpose, the Bureau of Customs may require the said owners to provide a security to answer for the said expenses.

Contravention of IPR laws pose a serious threat to the business environment, leading to national economic loss. Thus, by supporting the viability of legitimate trade, customs is not only to act as an agent of the country's economic prosperity, but also to protect the nation from the influx of sub-standard and hazardous goods. Section 4 of the *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPs) pens down the future role and responsibility of customs as regards protection of IPR enforcement.[69] In addition, the WCO has been working consistently to develop strategies to enable Members countries to combat infringement of IPR laws at the borders. As most trading countries are Members of WTO and WCO, as well as party to a large number of bilateral, regional and multilateral treaties and conventions, they strives towards effective implementation of the most pragmatic measures in protecting the country from importation or exportation of counterfeit goods.

The challenge to the Customs community today is to proactively manage the apparently contradictory role of ensuring improvement in the speed and service delivery of Customs formalities while maintaining systematic and effective intervention controls in a 'hostile'

[68] Philippines Bureau of Customs, <http://customs.gov.ph/> (accessed 10 January 2013).

[69] WTO, *Agreement on Trade-Related Aspects of Intellectual Property Rights* WTO <http://www.wto.org/english/tratop_e/trips_e/trips_e.htm> (accessed 10 August 2012).

environment where organised crime and terrorist activity is an ever-increasing threat.[70] This brings into play the concept of 'risk management'. Hence, the traditional role of Customs as the 'gatekeepers' has now been replaced by the new and more challenging role of risk-based regulatory compliance management approach which is based on three crucial concepts: trade facilitation, border protection, and revenue collection.[71] With this critical role in controlling and administering the cross-border movement of goods in international trade, Customs administrations are perfectly positioned and have an important role in interdicting and disrupting the illicit trade in goods that infringe intellectual property rights.

In Malaysia, the Ministry of Domestic Trade & Consumer Affairs (DTCA) has established an Enforcement Division which initiates actions in case of possible criminal offences. Under the Trademark Act and the Customs Act the Enforcement Division has been granted the authority to search, raid, arrest, fine with penalty and seize infringing goods.[72] The Enforcement Division of DTCA carries out raids in co-operation with the Police. The Enforcement Division also cooperates with Customs in search and seizure of infringing goods based on the Customs Act. The extent of cooperation among various agencies of the government can be easily understood from such endeavours.

With the 'universal' agreement on TRIPS coming into force on 01 January 1995, the international community came up with a set of objectives with regard to border protection of IPR laws. There are[73]:

- A common international standard for the protection of IPR
- Effective and adequate protection of IP rights, ensuring that such protections do not themselves distort and inhibit international trade
- Protection to be provided through administrative and judicial enforcement measures under domestic legal systems

[70] David Widdowson and Stephen Holloway, 'The national security environment: strategic context' in Gerard McLinden et al (eds), *Border Management Modernization* (The World Bank, 2011) 299.

[71] Syed Saifuddin Hossain, 'Border Enforcement of IPR Laws in Australia' (2009) 4(1) *Global Trade and Customs Journal* 2.

[72] Government of Malaysia, <http://www.customs.gov.my/front.html> (accessed 2 September 2012).

[73] Harrison, above n 60, 17.

- Compliance to be enforce through the WTO dispute settlement procedures, backed by trade sanctions in the event of a failure to meet the standard obligations
- Transfer and dissemination of technology through the protection afforded by TRIPS

Interestingly, while TRIPS made IP protection mandatory transfer of technology still remains a voluntary measure. This means that there is a legal asymmetry here. Technology exporting states get a right to mandatory TRIPS protection for the IP but technology importing countries cannot get technology transfer as a matter of right. The former acquires a right without any reciprocal duty while the latter has a duty without any reciprocal right.

It is also important to take note of the key developments that took place during the run up when TRIPS was being negotiated under the Uruguay Round Negotiations of the WTO. One such key occasion was in November 1991 when the Trade Negotiations Committee (TNC) of the GATT Secretariat issued a report on the status of the TRIPS negotiations, including the following comments on three categories of issues to be resolved:

> First, decisions are required on some twenty key issues concerning the level and name of the standards of protection of IP rights to be included in a TRIPS agreement. The main points for decision lie in the areas of copyright, geographical indications and patents, although there are some outstanding issues in other parts as well. In the patent area, for example, it remains to be decided to what extent it will be possible to agree that patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced, as well as to determine the term of patent protection. In the area of geographical indications, it has to be decided whether additional protection should be available for wines and spirits, and the scope of and conditions on exceptions to such protection. In the area of copyright, outstanding issues included the nature of protection of computer programs, and rental rights…
>
> A second category of decision that remains to be taken are those that will govern the timing of the economic impact of the result. This concerns not only the duration of the special transition periods that developing and least-developed countries will be entitled to, but also the extent to which the new obligations will apply to existing works, inventions and other

> subject matter as well as certain specific proposals regarding products whole marketing is subject to delay due to regulatory requirement. In regard to these matters, it is clear that participants are not only sensitive to the specific issues arising in regard to the phasing-in of TRIPS commitments, but also to how the timing of their economic impact with that of commitments that will be entered into in other areas of the Uruguay Round.
>
> The third set of issues that have to be settled concerns the institutional frameworks for the international implementation of the results of the negotiations on TRIPS.[74]

Finally, agreement on TRIPS was reached in April 1994. TRIPS is a comprehensive multilateral accord establishing unconditional obligations for all WTO Members' intellectual property rights policies with regard to copyright and related rights, trademarks, geographical indications, industrial designs, patents, layout designs of integrated circuits, and trade secrets. Customs administrations in the developing and least developed countries face the challenge to implement the Agreement. However, it needs to be taken into cognisance that they experience various hurdles such as lack of political will, lack of funding, inadequate training and risk assessment tools.

TRIPS contains requirements that national legislations must meet for copyrights protection including the rights of performers, producers of sound recordings and broadcasting organizations; geographical indications, including appellations of origin; industrial designs; integrated circuit layout-designs; patents; monopolies for the developers of new plant varieties; trademarks; trade dress; and undisclosed or confidential information. It also specifies enforcement procedures, remedies, and dispute resolution procedures. It requires that protection and enforcement of all intellectual property rights shall meet the objectives to contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

TRIPS agreement introduced intellectual property law into the international trading system for the first time and remains the most comprehensive international agreement on intellectual property to date. As underscored by WTO,

[74] Bloomberg BNA, 'World Intellectual Property Report' (December 1991) <http://www.bna.com/world-intellectual-property-report-p6798/> 331-332 (accessed on 17 October 2008).

> 'The emphasis in the enforcement part of the TRIPS Agreement is on internal enforcement mechanisms, which, if effective, would enable infringing activity to be stopped at source, the point of production. Where possible, this is both a more efficient way of enforcing IPRs and less liable to give rise to risks of discrimination against imports than special border measures. However, the Agreement recognizes that such enforcement at source will not always be possible and that in any event not all countries are Members of the TRIPS Agreement. The Agreement therefore also recognizes the importance of border enforcement procedures that will enable right holders to obtain the cooperation of customs administrations so as to prevent the release of infringing imports into free circulation. The special requirements related to border measures are contained in Section 4 of the enforcement part of the Agreement.'[75]

The above statement clearly articulates the role of customs as an enforcement agency placed at the national borders to intercept export and import of IPR infringed goods. Specific roles of customs in this regard have been spelt out in Articles 51-60 of the TRIPS Agreement.[76] Detailed discussion on these articles has been presented in the next chapter.

In addition to the above, Section 5 of the TRIPS Agreement stands out as a significant provision as it empowers Customs with a powerful enforcement tool. It states,

> Members shall provide for criminal procedures and penalties to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of corresponding

[75] WTO, *Agreement on Trade Related Aspects of Intellectual Property Rights* <http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> (accessed on 8 March 2012).

[76] Ibid. Coverage of these Articles are as follows: Article 51 (Suspension of Release - A provision, which allows a right holder to lodge an application with Customs to suspend release of, suspected counterfeit goods.); Article 52 (Application - Describes the conditions for making an application, Prima facie evidence of infringement and a 'sufficiently detailed description' of the goods.); Article 53 (Security or Equivalent Assurance - Security to prevent abuse of the system); Article 54 (Notice of Suspension - Prompt notification by Customs to the rights holder of suspension.); Article 55 (Duration of Suspension - 10 working days after the applicant has been served notice of the suspension; time period for Right Holder to commence legal proceedings.); Article 56 (Indemnification of the Importer and of the Owner of the Goods - The applicant is liable to pay compensation to the importer, the consignee and owner compensation in the case of wrongful detention.); Article 57 (Right of Inspection and Information - The right holder is given sufficient information and the right to inspect detained goods, in order to substantiate the claim(s).); Article 58 (Ex Officio Action - Optional provision, which allows Customs to act upon their own initiative, without an application being required, in order to suspend clearance of goods.); Article 59 (Remedies - Destruction order for infringing goods. Re-exportation not allowed.); Article 60 (De Minimis Imports - Small 'non-commercial' consignments may be excluded.).

> gravity. In appropriate cases, remedies shall also include the seizure, forfeiture and destruction of infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence. Members may provide for criminal procedures and penalties to be applied in other cases of infringement of intellectual property rights, in particular where they are committed wilfully and on a commercial scale.[77]

The above discussion, clearly shows that the WTO-TRIPS agreement has got, in its essence, the concept of enforcing legal regulations at the national borders. However, the extent to which these provisions have been able to empower countries to secure their international borders and domestic markets from the threats of counterfeiting and piracy still bears formidable question.

2.3.2 From TRIPS to TRIPS-plus

No doubt that the adoption and entry into force of the WTO's TRIPS Agreement[78] substantially changed the international intellectual property regime by introducing the principle of minimum intellectual property standards. The principle constitutes a significant conceptual basis for subsequent multilateral and bilateral intellectual property negotiations aimed at setting higher and more expansive standards. Its effect is that any intellectual property agreement negotiated subsequent to TRIPS among and/or involving WTO members can only create higher standards. Higher standards, which could result from bilateral, plurilateral or multilateral treaties, have come to be commonly referred to as 'TRIPS-plus'. Although referred to as minimum standards, the appropriateness of the standards contained in the TIPRS Agreement for technology and development needs of developing countries has been seriously questioned and one predominant view is that these standards are too high for these countries.[79]

TRIPS-plus is a concept which refers to the adoption of multilateral, plurilateral, regional and/or national intellectual property rules and practices which have the effect of reducing

[77] World Trade Organization, *The Legal Text: The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge University Press, 1999) 2.

[78] WTO, above n 69.

[79] Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Institute for International Economics, 2000) 9.

the ability of developing countries to protect the public interest. TRIPS-plus includes any new standards that would limit the ability of these countries to:

- promote technological innovation and to facilitate the transfer dissemination of technology;
- take necessary measures to protect public health, nutrition and to promote the public interest in sector of vital importance to their socio-economic and technological development; or,
- take appropriate measures to prevent the abuse of intellectual property rights by right holders or the resort by rights holders to practices which unreasonably restrain trade or adversely affect the international transfer or technology.

Consequently, the concept covers both those activities aimed at increasing the level of protection for right holders beyond that which is given in the TIRPS Agreement and those measures aimed at reducing the scope or effectiveness of limitation on rights and exceptions under the TIRPS Agreement. Such policies are bound to limit the ability of developing countries to design and implement measures to protect sectors of vital importance to their socio-economic and cultural development including health, environment and ford and nutrition.[80] The flip-side of the coin is emergence of monopolistic policy implementation by large MNCs to protect and serve their interest. A number of recent papers have examined the TRIPS-plus implications and the challenges posed by bilateral treaties and on-going plurilateral negotiations to the flexibilities in the TIRPS Agreement.[81]

[80] Sisule F Musungu and Graham Dutfield, 'Multilateral agreements and a TRIPS-plus world: The World Intellectual Property Organisation (WIPO)' (Quaker United Nations Office (QUNO), 2003) 3.

[81] Mohammed K El Said, *Public health related TRIPS-plus provisions in bilateral trade agreements* (ICTSD and WHO, 2010), ; GRAIN, 'TRIPS-plus through the back-door' (2001) <http://www.grain.org> (accessed on 17 August 2013); Susy Frankel, 'Challenging TRIPS-plus Agreements: The Potential Utility of Non-violation Disputes' (2009) 12(4) *Journal of International Economic Law* ; Sunil Kumar Agarwal, Navin Srivastava and Amita Agarwal, 'Trips-Plus Agenda Through Anti-Counterfeiting Trade Agreement: Implications for India ' (2011) <http://ssrn.com/abstract=1868026> 25.

2.3.3 Global Commitments beyond WTO-TRIPS

World Intellectual Property Organisation (WIPO) Agreements

Before the Uruguay Round of trade negotiations that led to the establishment of the WTO, international intellectual property negotiations and standard setting had been taking place in WIPO and its predecessor institutions for over a century. Many of the rules and/or concepts embodied in the TRIPS Agreement existed in some form or another in a diverse number of treaties administered by WIPO. Consequently, although the TRIPS Agreement introduced significant changes in the overall framework of the international intellectual property system, it did not in fact alter the standard setting structure. While the WTO trade rounds framework and the concept of single undertaking proved important in pushing TRIPS through, WIPO remains the main international institution that is involved in the continuous development of intellectual property standards and rules. A proper understanding of the status and current role of WIPO in the administration of intellectual property standards must, however, be based on a clear view of the dynamics in the field of intellectual property following the adoption of the TRIPS Agreement.

WIPO as an organisation presides over an intellectual property regime of enormous rule diversity.[82] The permissive nature of the rules under the WIPO regime and the lack of an enforcement mechanism is what led key industry players in the USA, in particular, to conclude that the organisation had failed to secure for them the appropriate levels of intellectual property protection around the world and to argue for a shift to the General Agreement on Tariffs and Trade (GATT). In the 1980s, the strategy of the USA and its major industries was therefore aimed at shifting the intellectual property regulatory focus from WIPO to the GATT which would permit the use of trade remedies to enforce intellectual property standards.[83]

Article 3 of the WIPO Convention sets out the objectives of WIPO. These are:

[82] John Braithwaite and Peter Drahos, *Global Business Regulation* (Cambridge University Press, 2000) 60.

[83] Fredrick Abbott, Francis Gurry and Thomas Cottier, *The International Intellectual Property System: Commentary and Materials* (Kluwer Law International, 1999) 12.

- to promote the protection of intellectual property throughout the world through cooperation among States, and, where appropriate, in collaboration with any other international organisation; and
- to ensure administrative cooperation among the Unions.[84]

The Convention also spells out the functions of WIPO. In addition to a variety of administrative functions, the substantive functions of WIPO, set out in article 4 of the Convention, include:

- To promote the development of measures designed to facilitate the efficient protection of intellectual property throughout the world and to harmonise national legislations in this field;
- To encourage the conclusion of international agreements designed to promote the protection of intellectual property; and
- To assemble and disseminate information concerning the protection of intellectual property, carry out and promote studies in this field and to publish the results of such studies.

The mandate and functions of WIPO as set out in the Convention appears to be fairly narrow. This has led to questions as to whether WIPO can take into account the development concerns that have been expressed by developing countries. [85]

The major WIPO agreements dealt with the three key aspects of intellectual property, namely: copyright, patents, and trade mark. The Berne Convention of 1886 is known to be the key Convention for the establishment and protection of copyright. Article XII of the Convention notes:

[84] Unions are defined under article 2 of the Convention as meaning 'the Paris Union, the Special Unions and Agreements established in relation to the Union, the Berne Union, and any other international agreement designed to promote the protection of intellectual property whose administration is assumed by the organisation according to Article 4 (iii). According to Arpad Bogsch, 'Brief History of the First 25 Years of the World Intellectual Property Organisation' (WIPO, 1992), the word 'Union', which traces its origin to the Paris Convention, is meant to convey the idea that the States party to a treaty, together form an entity which has legal personality and its own finances.

[85] Commission on Intellectual Property Rights, 'Integrating Intellectual Property Rights and Development Policy' (Commission on Intellectual Property Rights, 2002).

(1) Infringing copies of a work shall be liable to seizure in any country of the Union where the work enjoys legal protection.

(2) The provisions of the preceding paragraph shall also apply to reproductions coming from a country where the work is not protected, or has ceased to be protected.

(3) The seizure shall take place in accordance with the legislation of each country.[86]

However, with the passage of time, the importance of revisiting the agreement was realised by the international community. This owed particularly to the technological development towards the first half of the 20th century which called for enhanced protection of IPRs to incentivise the creators and innovators. At a later stage, the provisions of the Berne Convention have been supplemented by a number of agreements, including the Rome Convention (1961) and the Brussels Convention relating to Distribution of Programme-Carrying Signals Transmitted by Satellite (1974).

The issue of patents and trade mark was dealt with under the *Paris Convention for the Protection of Industrial Property, 1883*. A number of other conventions dealing with specific aspects of patents are:

- Patent Cooperation Treaty (1970)
- Strasbourg Agreement Concerning the International Patent Classification (1971)
- International Convention for the Protection of New Varieties of Plants (1961)
- Budapest Treaty on the International Recognition of the Deposit of micro-Organisms for the Purposes of Patent Procedure (1977)

These treaties have dealt with the issue of border protection of IP either in most general terms, or often in discretionary rather than mandatory ways.[87] It is in this context that the WTO TRIPS agreement is regarded to be a strong foundation due to greater emphasis on the issue of border enforcement of IPR laws.

[86] Berne Convention for the Protection of Literary and Artistic Works, (1886) <http://www.wipo.int/export/sites/www/treaties/en/ip/berne/pdf/trtdocs_wo001.pdf> (accessed on 25 February 2013).

[87] Harrison, above n 60, 17.

TRIPS-plus and WIPO

The advent of TRIPS created a significant strategic dilemma for WIPO. The organisation had to share its hitherto 'exclusive competence' on intellectual property matters with the WTO. As a beneficiary of the strategy to weaken UNCTAD in the early 1980s, WIPO was particularly aware of the dangers of forum shifting.[88] In a move aimed at preserving its relevance in the new scenario, WIPO quickly adopted a resolution in 1994 mandating the International Bureau to provide technical assistance to WIPO members on TRIPS-related issues. This was followed by a second resolution in 1995 to enter into a cooperation Agreement with the WTO for WIPO to provide technical assistance to developing country members of the WTO irrespective of their membership in WIPO.[89] In many ways, these resolutions meant that WIPO had found a niche in the TRIPS world. The organisation also benefited from the fact that, although it was seen as lacking in enforcement, the standards established under its treaties and the technical expertise that had developed in the organisation over the years were indispensable in ensuring the success of the TRIPS project. Ultimately, the circumstances leading to the adoption of the TRIPS Agreement in the WTO demonstrate that for WIPO to remain the main forum on intellectual property matters, it must show to the USA and its industry that it can deliver new standards faster and more efficiently. This reasoning underlies WIPO's TRIPS-plus agenda.

World Customs Organisation (WCO)

In order to assist Governments with the implementation of the provisions in the TRIPs Agreement concerning border measures, the WCO developed in 1995 a Model Legislation to assist with the preparation of national legislation consistent with the TRIPs Agreement. The legislation was then revised in 2001, taking into account the most recent developments and experiences in implementing customs laws in different regions of the world.

The overwhelming significance of border protection of IPR laws in the rapidly globalising world has been quite succinctly summarised by the WCO in the following statement:

---

[88] For a discussion on how the USA worked to weaken UNCTAD, which had gained prominence as the champion for developing countries on matters of trade and development including technology transfer and intellectual property, by shifting the discussions WIPO, see Peter Drahos, 'Developing Countries and International Intellectual Property Standard Setting' (2002) 22.

[89] Musungu and Dutfield, above n 80, 16.

> Violations of intellectual property rights (IPR) are a serious and growing threat to the health, safety and economic interests of the entire world. Counterfeit and pirated goods that infringe legitimate intellectual property rights are produced, transported, distributed or sold in every country throughout the world. The globalisation of counterfeiting and piracy poses a very real and growing threat to both developed and developing countries. Counterfeiting and piracy are serious threats to consumer health and safety, tax revenue, and innovation that is essential to economic development. In terms of products which expose the public to serious health and safety risks, there have been cases of pharmaceutical products and prescription medicines manufactured from inferior, inactive or dangerous ingredients or auto and aircraft parts which do not meet safety standards. These examples serve as worrying reminders of how dangerous counterfeiting can be. The theft of intellectual property rights deprives governments of tax revenues that could be used for programmes to benefit their citizens, but instead fund the illegal activities of organized criminal groups to the detriment of society. Countering IPR infringements was a priority on the G8 agenda (United Kingdom 2005, Russia 2006, and Germany 2007). In addition to health, safety and tax revenue concerns, the G8 has recognized that product innovation and entrepreneurial inventiveness are also casualties of unchecked IPR infringement.[90]

Members of both WTO and WCO have been active participants in the struggle against violation of intellectual property rights. Development and implementation of improved intellectual property rights protection measures through updated legislation has long been one of the major goals of these countries. There is no denying that the effective enforcement of intellectual property rights is an important issue for every government. Such commitment has been evidenced in the efforts by a number of Customs administrations such as the Australian customs when it was actively involved in developing a number of proposals to strengthen border enforcement measures.[91] Customs initiated amendments to the *Trade Marks Act 1995* and the *Copyright Act 1968* to reduce the administrative burden and costs associated with right holders making an application under the Notice of Objection scheme. This included the removal of the requirement to lodge a $10,000 (for trade marks) or $5,000 (for copyright) security at the time of filing a Notice of Objection. The Australian Customs is also committed towards establishing an IPR database and training of relevant staff. Similar efforts and exercises have been carried

[90] WCO, 'Provisional Standards Employed by Customs for Uniform Rights Enforcement (SECURE)' (2007) <http://keionline.org/misc-docs/SECURE_text.pdf> 2 (accessed on 7 August 2009).

[91] Commonwealth of Australia, above n 66, 8-10.

out by the Customs administrations of other countries such as the USA and UK over the years, particularly in the post 9/11 era.

WCO Model IPR Legislation

The WCO Model IPR Legislation, titled *Model Provisions for National Legislation to Implement Fair and Effective Border Measures Consistent with the Agreement on Trade-Related Aspects of Intellectual Property Rights (2004),* has been developed with a view to introducing provisions that should facilitate effective use of existing resources in the Member states. It considers that where goods infringing intellectual property rights are under the control of customs authorities, whether they be imported, destined for exportation or re-exportation, or in transit, they should be subject to effective enforcement measures and procedures.

The model legislation has 17 Articles divided into 6 parts. [92] In its six parts, the Legislation underlines 17 articles dealing with the important aspects of customs role in border protection of IPR. Starting with definitions and interpretations in Part 1, the legislation presents detailed intervention measures by customs in Part 2 (Articles 1-8). This is followed by powers and responsibilities related to ex-officio inspection in Part 3 (Articles 9 and 10), disposal of infringing goods in Part 4 (Articles 11), issues of international cooperation in Part 5 (Article 12) and a set of final provisions in Part 6 (Articles 13-17). Please see Appendix 1 for specific issues covered under the Articles of the legislation.

In addition to the IPR Model Legislation, the WCO has also been working to put in place several other instruments with the objective of helping member countries fight successfully against the menace of piracy and counterfeiting. These include: *WCO Risk Management Guidelines for more effective controls*, *IPR Diagnostic Survey*, *WCO IPR e-learning module*, *Proposals aimed at strengthening co-operation with the private sector*, and *Working methods tailored to suit the specific nature of anti-counterfeiting activities*. [93] These instruments are designed to match the demand of the day. Hence, both the

[92] WCO, 'WCO Model IPR Legislation' (2004) <http://www.tafa-r.org.tw/forum/20110816/20110816WCOModelLawfinal.pdf> (accessed on 28 April 2011).

[93] WCO, *Intellectual Property Rights* <http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/ep_intellectual_property_rights.aspx> (accessed on 25 February 2013).

government and the private sectors have equal responsibilities to put these principles into action.

2.4 Conclusion

The foregoing analysis allows us to realise that while border protection of IPR infringement is a concern primarily of a state, the global community is no less involved or kept out of the impact zone of such illicit trade. Every country, whether it is a developed one like the USA or Australia, or it is a least developed country (LDC)[94] like Bangladesh or Vanuatu, has got its stake involved in the fight against international trade of fake and counterfeit goods.

As has been seen the WCO, WIPO and several bilateral and regional arrangement do include important provisions with regard to facilitating trade at the international borders by way of interdicting IPR infringement. Nevertheless, as the principal international trading organisation, perhaps the WTO has got the highest influence due to the combination of multi-sectoral agreements lying at its heart.

This Chapter has so far attempted to explore the links and missing links among three key issues: trade facilitation, TRIPS and IPR protection. The finding could be summarised as the followings:

2.4.1 The Links

As noted in the first part, trade facilitation is, and has always been, an integral part of the WTO negotiation process in various forms and scopes. Efforts by the international community to lower tariff and non-tariff barriers, reduce documentation requirements, harmonising various administrative and procedural measures among different agencies of the government,- all are streams of trade facilitation initiatives. However, the efforts to discuss trade facilitation in the context of TRIPS in the formal setting of the WTO have been rather sporadic and, on most occasions, dependent on the nature of explanations of the WTO rules. It has also been discussed that institutions and entities other than the WTO have also been putting significant efforts towards creating a global trade facilitative

[94] The thesis uses UN LDC list available at www.un.org/en/development/desa/policy/cdp/ldc/ldc_list.pdf

environment. Articles 51-60 of the TRIPS have somewhat given the international trading community a platform which makes it obligatory on the part of the Member countries to amend their national legislations to ensure effective implementation of the TRIPS. However, have all the WTO Members been able to ensure such compliance? If not, what have been the determining factors impeding such crucial reforms for ensuring effective border enforcement of IPRs? These questions will be dealt with in Chapter 3 of the present research.

2.4.2 The Missing Links

The second part of the Chapter analyses how the international community as a whole, and the member countries as individuals, have been working towards developing various legal instruments to combat border infringement of trade-related IPRs. The discussion clearly underscores that there are a wide range of such instruments which have so far been providing countries in general, and their Customs authorities in particular, the means to interdict IPR violation in the context of international trade. However, are these measures enough? Has the global trading community been able to sufficiently address the issue of what could be the impact of various trade facilitation measures on border enforcement of IPR infringement? What are the possible consequences of TRIPS-plus measures being adopted by developed countries? Can WTO and other relevant agencies such as WIPO, UN and UNCTAD come up with a solution where developing countries will not be victimised due to the self-interest oriented policy adoptions by their developed counterparts?

One thing that has certainly come at the forefront from literature review in the preceding Chapter as well as the analyses presented in Chapter 2 is that there has been a clear gap in establishing a concise and pragmatic nexus between trade facilitation initiatives and the 'border measures' of the TRIPS agreement. Even the 2013 WTO Agreement on Trade Facilitation does not cover the issue to the extent required.

Finally, the above findings warrant the necessity of further in-depth analysis in the context of facilitating trade and ensuring effective enforcement of IPRs at the same time. The present research deals with the issue in Chapter 3 which presents a detailed analysis of the TRIPS related trade facilitation measures that focus on the aspect of border enforcement of IPRs.

Annex Table 2.1

Salient Features of the WCO Model Legislation

Part/Article	Subject Matter
Part I	Definitions and Interpretations
Part II	Applications for Interventions by Customs
Article 1	• Rights of IPR holder regarding lodging application and requesting Customs to act • Customs to establish centralised data base to manage applications
Article 2	• Duration of validity of application • IPR holders' obligation to inform Customs to cease the right
Article 3	• Applications may be general or specific • Outlines information to be provided in the application
Article 4	• Customs to inform the applicant on whether the application is successful or not • Immediate action by Customs in relations to known shipments
Article 5	• Customs to require security from the applicant
Article 6	• Customs empowered to suspend infringing goods • Customs to inform the owner and objector immediately of action taken
Article 7	• Customs' further action in response to IPR holder's actions against the goods
Article 8	• IPR holder's rights to examine seized goods
Part III	Ex-Officio Action
Article 9	• Making it mandatory for Customs to suspend the clearance of goods where is has a *prima facie* evidence that an IPR has been infringed or is about to be infringed
Article 10	• Ex –Officio action to be followed by requesting the assistance of the IPR holder in prosecuting the case
Part IV	Disposal of Infringing Goods

Part/Article	Subject Matter
Article 11	• Seized goods to be disposed of on the basis of a court order • In the absence of court order, collaboration with IPR holder where importer fails to give reason showing the goods not be disposed of
Part V	International Cooperation
Article 12	• Cooperation between Customs authorities • Establishing point of contact for such cooperation
Part VI	Final Provision
Articles 13-17	• De-minimis importation; power to issue subordinate legislation; indemnities for Customs against civil or criminal liability for actions taken under the Law or failure to detecting IPR infringement

Source: WCO, 2004[95]

[95] WCO, 'Model Provisions for National Legislation to Implement Fair and Effective Border Measures Consistent with the Agreement on Trade-Related Aspects of Intellectual Property Rights' (WCO, 2004).

CHAPTER 3

TRIPS AGREEMENT AND BORDER ENFORCEMENT OF IPRS

3.1 Introduction

It was the perception that the existing international intellectual property regime lacked effective enforcement which prompted the international community to include intellectual property rights (IPRs) as an agenda item in the Uruguay Round of the General Agreement on Tariff and Trade (GATT). The Ministerial Declaration of 20 September 1986 which launched the Uruguay Round explained that:

> In order to reduce the distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade, the negotiations shall aim to clarify GATT provisions and elaborate as appropriate new rules and disciplines.
>
> Negotiations shall aim to develop a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods, taking into account work already undertaken in the GATT.[1]

Consequently, Part III of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement obliges Members to establish a national comprehensive enforcement regime. Article 41, in its five paragraphs, articulates the general enforcement obligations which are incumbent upon Members. This is followed by next nine Articles (42-50) which underscore the civil and administrative procedures and remedies which are required to be offered to intellectual property rights holders. Article 61 requires the institution of criminal procedures and remedies in the case of wilful trademark counterfeiting or copyright piracy on a commercial scale. A significant innovation is the scheme for the border control of intellectual property counterfeiting which is contained within Articles 51 to 60. As a corollary to the enforcement provisions of the Agreement, measures are also adopted in Articles 63 and 64 for the establishment of multilateral consultation and dispute settlement

[1] WTO, 'Ministerial Declaration on the Uruguay Round' (WTO, 1986) <http://www.wto.org/gatt_docs/English/SULPDF/91240152.pdf> 7-8 (accessed on 18 June 2013).

procedures. This chapter analyses the abovementioned Articles of the TRIPS Agreement to understand their nature and scope in the context of international trade. At the end, the Chapter portrays some of the best practices carried out by the World Trade Organization (WTO) Members in their fight against trade related IPRs infringement. The first sentence of Article 51 states:

> Members shall, in conformity with the provisions set out below, adopt procedures to enable a right holder, who has valid ground for suspecting that the importation of counterfeit trademark or pirated copyright goods may take place, to lodge an application in writing with competent authorities, administrative or judicial, for the suspension by the customs authorities of the release into free circulation of such goods.[2]

The first sentence of the TRIPS border measures provision is filled with substantive elements. These elements include specific reference to 'importation' and that the procedures must related to 'counterfeit trademark or pirated copyright goods'[3] and the submission of applications to an unspecified competent authority.[4]

3.2 The Regulation of Counterfeiting and Piracy under TRIPS

3.2.1 General Enforcement Obligations

As per Article 41.1 of the TRIPS Agreement, WTO Members have the general obligation to make available the enforcement procedures listed in the Agreement 'so as to permit effective action against any act of infringement of intellectual property rights' covered by

---

[2] WTO, *Agreement on Trade Related Aspects of Intellectual Property Rights* <http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> Article 51 (Accessed 19 June 2013).

[3] Ibid. The Article defines counterfeit trademark goods an pirated copyright goods, stating 'for the purpose of this Agreement:

(a) Counterfeit trademark goods' shall mean any goods, including packaging, bearing without authorisation a trademark which in identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation;

(b) Pirated copyright goods' shall mean any goods which are copies make without the consent of the right holder or person duly authorised by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted and infringement or a copyright or a related right under the law of the country of importation.'

[4] See also the NAFTA's Article 1718(1). It is essentially the same text as the TRIPS Article 1.

the Agreement.[5] These procedures are required also to include 'expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements'.[6] Consistent with the general trade liberalisation objectives of the WTO, these procedures are required to be 'applied in a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse'.[7]

The need for balancing the interest of title-holders, alleged infringers and the public interest is introduced in Article 41.1 of the TRIPS Agreement. While the first sentence of the provision mirrors the interests of rights holders, the second sentence takes account of the public interest in the availability of IPR-protected products: 'procedures shall be applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse'. This provision indicates, in line with the Preamble[8] and Article 8.1[9] that in adopting and applying enforcement procedures Members must ensure that legitimate trade is not jeorpardised, for instance, by injunctive measures adopted without sufficient justification. According the panel report in *Canada-Pharmaceutical Products*, ''legitimate' must be defined in the way that it is often used in legal discourse – as a normative claim calling for protection of interest that are 'justifiable' in the sense that they are supported by relevant public policies or other social norms'[10]

In amplification of the latter qualifications, Article 41.2 requires that '[p]rocedures concerning the enforcement of intellectual property rights shall be fair and equitable'. More specifically, the paragraph requires that procedures 'shall not be unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays'.[11] In most countries some degree of delay is an inevitable consequence of the generally increasing

[5] WTO, above n 2, Art. 41.1.

[6] Ibid.

[7] Ibid.

[8] 'Desiring.....to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade;...'

[9] 'Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonable restrain trade or adversely affect the international transfer of technology'.

[10] *Protection of Pharmaceutical Products*, DS114/R, adopted on 17 March 2000, para 7.69.

[11] WTO, above n 2, Art. 41.2.

work load which the court system has to bear. To ameliorate the situation, as far as the enforcement of intellectual property rights is concerned, some countries, such as the United Kingdom (UK), have adopted the expedient of conferring an intellectual property jurisdiction upon lower courts in relation to smaller matters. Alternatively, countries such as Thailand, have announced the establishment of entirely new courts to hear intellectual property matters. However, it should be noted that Article 41.5 declares that it should be understood that the scheme for the enforcement of intellectual property rights contained in the TRIPS Agreement did not 'create any obligation to put in place a judicial system for the enforcement of intellectual property rights distinct from that for the enforcement of law in general'.

Article 41.3 stipulates that '[d]ecisions on the merits of a case shall preferably be in writing and reasoned' and that they 'shall be made available at least to the parties to the proceeding without undue delay'.[12] Due process is also required by the paragraph which insists that '[d]ecisions on the merits of a case shall be based only on evidence in respect of which parties were offered the opportunity to be heard'. An opportunity for judicial review of final administrative decisions and 'the legal aspects of initial judicial decisions on the merits of a case' is required by Article 41.4. However, para 4 provides that there is 'no obligation to provide an opportunity for review of acquittals in criminal cases'.[13]

Article 41.5 presents a general declaration of the understanding that the enforcement of intellectual property rights in a Member country should be in no better position than the enforcement of any other rights.[14] Thus not only is there no obligation to establish a separate court system for the enforcement of intellectual property rights, but also Article 41.5 provides that there is no 'obligation with respect to the distribution of resources as between the enforcement of intellectual property rights and the enforcement of law in general'. However, this provision is subject to the preceding obligations to provide enforcement procedures which are, for example, expeditious and which provide interested parties an opportunity to be heard and with an opportunity for appeal on the merits of a case. These obligations will inevitably involve the deployment of resources and, depending

[12] Ibid Art. 41.3.

[13] Ibid Art. 41.4.

[14] Ibid Art. 41.5.

on the existing level of funding received by the judicial sector in a country, may require the preferential allocation of resources to the judicial enforcement of intellectual property rights.

3.2.2 Civil Procedures

Article 42 requires Members to make judicial procedures available for the enforcement of the IPRs of the rights holders. It requires that the judicial procedures are fair and equitable and that defendants are entitled to 'written notice which is timely and contains sufficient detail, including the basis of the claims'.[15]

The above Article also states the requirement of representation by independent legal counsel. Parties to such procedures 'shall be duly entitled to substantiate their claim and to present all relevant evidence', without the procedures imposing 'overly burdensome requirements concerning mandatory personal appearances'. Article 42 also provides that the procedure 'shall provide a means to identify and protect confidential information, unless this would be contrary to existing constitutional requirements'. The exception reflects the fact that in some countries types of secrecy in civil judicial procedures may be prohibited as a matter of constitutional law. In these cases, a contradiction with a national law not having the status of a constitutional provision or principle may not be sufficient to justify non-compliance.[16] Questions may arise as to whether constitutional rules introduced after the entry into force of the Agreement would include a temporal reference (especially with regard to its entry into force in a particular Member), it should be interpreted in the sense that 'existing' simply means applicable at the time where a particular enforcement measure is requested or applied.

The usual way of enforcing intellectual property rights is through civil procedures initiated only at the request of or by the right holder but not *ex officio* by the member state.[17] Article 42 of the TRIPS Agreement specifies that Members are required to make available to

[15] Ibid Art. 42.

[16] UNCTAD and ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press, 2005) 589.

[17] *China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights*, Panel Report DS362/R, adopted on 26 January 2009, para 7.180.

rights holders civil judicial procedures for the enforcement of any intellectual property (IP) right covered by the TRIPS Agreement. This means that the provision of only administrative enforcement procedures is insufficient.[18] Article 42 requires that civil judicial procedures are 'fair and equitable'.[19] These requirements reflect normal due process rules applicable in civil proceedings.

Article 42 of the TRIPS Agreement was at issue in *US Section 211 Appropriations Act*. The European Communities claimed that Sections 211(a)(2) and (b) of the US Appropriations Act violated Article 42 of the TRIPS Agreement as they expressly denied the availability of US courts to enforce the rights targeted by Section 211.[20] It noted:

> While Section 211(a)(2) would not appear to prevent a right holder from initiating civil judicial procedures, its wording indicates that the right holder is not entitled to effective procedures as the court is *ab initio* not permitted to recognise its assertion of rights if prevented from having a chance to substantiate its claim, a chance to which a right holder is clearly entitled under Article 42, because effective civil judicial procedures mean procedures with the possibility of an outcome which is not pre-empted *a priori* by legislation.[21]

On appeal, the Appellate Body agreed with the panel that:

> ..the ordinary meaning of the terms 'make available' suggests that 'right holders' are entitled under Article 42 to have access to civil judicial procedures that are effective in bringing about the enforcement of their rights covered by the Agreement... The term 'right holders'...also includes persons who claim to have legal standing to assert rights.[22]

---

[18] An exception is made for the enforcement of the enhanced protection for GIs on wine and spirits, which may take place through administrative action rather than judicial proceedings. See footnote 4 to Article 23.1 of the TRIPS Agreement.

[19] *United States - Section 211 Omnibus Appropriations Act of 1998*, AB Report DS176/AB/R, adopted on 2 January 2002, para 207.

[20] With regard to Section 211(b), the panel held that the European Communities had failed to explain the provisions referred to in the Section and had therefore not proved its case. See Panel Report, US – Section 211 Appropriations Act (2002), para 8.162.

[21] AB Report, above n 19.

[22] Ibid paras 215 and 217; *United States - Section 211 Omnibus Appropriations Act of 1998*, Panel Report DS176/R, adopted on 6 August 2001, para 8.95.

The Appellate Body then turned to the fourth sentence of Article 42 of the TRIPS Agreement, which requires that '[a]ll parties to such procedures shall be duly entitled to substantiate their claims and present all relevant evidence'. It noted that right holders are entitled thereby to choose how many and which claims to bring, to provide grounds for their claims and to bring all relevant evidence.[23] The Appellate Body stated:

> We understand that the rights which Article 42 obliges members to make available to rights holders are procedural in nature. These procedural rights guarantee an international minimum standard for nationals of other Members within the meaning of Article 1.3 of the TRIPS Agreement.[24]

The civil procedures are lengthy and cumbersome. They also call for high level of expertise on the part of the claimant to prove the case.

3.2.3 Evidence

Discovery and interrogatories

Article 43.1 underscores the necessity of procedures in the nature of discovery and the administration of interrogatories, once a party has 'presented reasonably available evidence to support its claims and has specified evidence relevant to substantiation of its claims which lies in the control of the opposing party'.[25] A concern which is particularly acute in patent actions is that these pre-trial procedures may result in trade secrets being revealed. Article 43.1 provides that the production of evidence may be compelled, 'subject in appropriate cases to conditions which ensure the protection of confidential information'. In the UK a plaintiff is required in these circumstances to show that there are 'formidable grounds' for suspicion that the defendant is infringing a plaintiff's rights.[26] Where there are concerns about the disclosure of trade secrets to a commercial rival the court may require the inspection of discovered evidence by an independent expert.

---

[23] AB Report, above n 19, para 216.

[24] Ibid para 224.

[25] WTO, above n 2, Art. 43.1.

[26] Michael Blakeney, 'Guidebook on Enforcement of Intellectual Property Rights' (Queen Mary Intellectual Property Research Institute, 2005) <http://trade.ec.europa.eu/doclib/docs/2005/april/tradoc_122641.pdf> 30.

If a party to a proceeding 'voluntarily and without good reason refuses access to, or otherwise does not provide necessary information within a reasonable period, or significantly impedes a procedure relating to an enforcement action,' Article 43.2 permits Members to accord the judicial authorities 'the authority to make preliminary and final determinations, affirmative or negative on the basis of the information presented to them'. This will include 'the complaint or the allegation presented by the party adversely affected by the denial of access to information'.[27] However, Article 43.2 mentions about the opportunity for the parties to be heard on the allegations or evidence.

Securing and preserving evidence

This refers to the rights of the IPRs holders in relation to access to information. In general, defendants are not expected to be available to answer questions or provide documentary evidences relating to an alleged infringement. Even worst, in case of a detection, there is a possibility that relevant evidence may immediately be removed or destroyed. Under such circumstances, an *ex parte* application by the right holder to access information from the defendant can play a crucial role. To deal with this situation the English Court of Appeal in *Anton Piller v Manufacturing Processes*[28] approved a procedure whereby on an *ex parte* application in camera, an order would be granted to an applicant that the defendant, advised by his legal representative, grant access to the applicant to inspect the defendant's premises to seize, copy or photograph material which may be used as evidence of the alleged infringement. The defendant may be obliged to deliver infringing goods, and tooling and may also be obliged to provide information about sources of supply and about the destination of infringing products.

A similar procedure, the *saisie-contrefaçon*, has been developed by the French courts.[29] Because of the exceptional nature of these orders, in their impact upon an individual's civil rights, after the demonstration that there is a very strong *prima facie* case of infringement, the courts have insisted upon proof that there is a strong possibility that evidence in the possession of a defendant is likely to be destroyed before an application *inter partes* can be

[27] WTO, above n 2, Art. 43.2.

[28] Blakeney, above n 26.

[29] Ibid.

made. Additionally, the British courts have insisted upon the safeguards of the attendance upon a search, conducted in business hours, by both parties' legal representative, sometimes with a neutral supervising solicitor who has experience in the execution of these orders. Refusal to comply with a seizure order will result in a contempt of court. On the other hand the use of the order for abusive purposes may result in the grant of substantial compensation to a defendant.

The *saisie-contrefaçon* and *Anton Piller* order is adopted in the scheme which is provided in Article 50 of the TRIPS Agreement for the making of 'provisional measures' by the judicial authorities. Article 50.1 provides that the judicial authorities shall have the authority 'to order prompt and effective provisional measures: '(b) to preserve relevant evidence in regard to the alleged infringement'.

As with the *Anton Piller* order, Article 50.2 permits the judicial authorities 'to adopt provisional measures *inaudita altera parte* where appropriate, ...where there is a demonstrable risk of evidence being destroyed.' Also the judicial authorities may have authority pursuant to Article 50.3 'to require the applicant to provide any reasonably available evidence in order to satisfy them with a sufficient degree of certainty that the applicant is the right holder' and that an infringement has occurred or is imminent. Additionally, Art 50.5 provides that to assist the authority which will enforce the provisional measure, 'the applicant may be required to supply other information necessary for the identification of the goods concerned'.

As with measures to prevent abuse and to protect a defendant's rights, Article 50.3 provides for an applicant to be ordered 'to provide a security or equivalent assurance' and Article 50.4 provides that where provisional measures have been adopted *inaudita altera parte*, notice must be provided to the affected parties 'without delay after the execution of the measures at the latest'. Paragraph 4 also provides for 'a review, including a right to be heard' upon the request of the defendant 'with a view to deciding, within a reasonable period of notification of the measures' whether they should be 'modified, revoked or confirmed'. Additionally, if proceedings leading to a decision on the merits of the case have not been initiated within a reasonable period, Article 50.6 permits the defendant to request the revocation of the provisional measures or for a determination that they cease to have effect.

Similar to the safeguards which have been developed in relation to the *saisie-contrefaçon* and *Anton Piller* procedure, Art 50.7 provides for the compensation of a defendant where 'the provisional measures are revoked or where they lapse due to any act or omission by the applicant, or where it is found subsequently that there has been no infringement or threat of infringement of an intellectual property right'.

3.2.4 Injunctions

Introduction

A civil remedy which is important for the preservation of intellectual property rights is injunctive relief. This is particularly the case where infringement may damage or undermine the establishment of a commercial reputation immediately upon the launching of a new product. Similarly, where the widespread counterfeiting of a trademarked product may have the effect of destroying the distinctiveness of a proprietor's mark thereby rendering the trademark registration voidable. Article 44 permits the conferral upon the judicial authorities the power 'to order a party to desist from an infringement, inter alia, to prevent the entry into channels of commerce in their jurisdiction of imported goods that involve the infringement of intellectual property rights'.

The injunctions which may be granted under Article 44 are grounded upon infringing conduct. Where proof of consumer deception is the central feature of the infringement, the remedy proffered by Article 44 may be rendered nugatory where a sufficient time is required to provide an opportunity for consumers to become deceived.[30] After this has occurred, it might be futile to hope that this deception can be undone. In this circumstance the provision of interlocutory relief is essential.

Provisional injunctions

Article 50.1 provides that the judicial authorities 'shall have the authority to order prompt and effective provisional measures...(a) to prevent an infringement of any intellectual property right from occurring'.[31] The trade-related context of this remedy is emphasised by

[30] WTO, above n 2, Art. 44.

[31] Ibid Art. 50.1.

the supplementary particularisation in sub-paragraph (a) that provisional measures may be taken 'to prevent the entry into the channels of commerce in their jurisdiction of goods including imported goods immediately after customs clearance. As a matter of practice the provisional injunction, although it is only intended to have a preservative effect, will actually be the basis of the final determination of parties' rights, as it is very seldom that after the interlocutory hearing, the defeated party will proceed to the determination of final relief.

If an appeal is to be taken, it will usually be on the issue of interlocutory relief. Provision is made in Article 50.6 for a defendant to request that provisional measures be revoked 'if proceedings leading to a decision on the merits of the case are not initiated within a reasonable period, to be determined by the judicial authority'.[32] Where such a period is not determined, Article 50.6 prescribes 20 working days or 31 calendar days, whichever is the longer. Here the damage claimed will easily be compensable by way of damages, the court may lean against the grant of injunctive relief, this will particularly be the case where the grant of a provisional injunction will have a significant impact upon the business of the defendant.

On the other hand, where the claimed infringement may be likely to have a significantly deleterious impact upon the business of the applicant, the court may consider the inconvenience to the respondent to be accommodated by an undertaking by the applicant or by the payment by it of monies into court in anticipation of compensation or costs being granted to the respondent. These principles are adopted in Article 50.7 which provides that where the provisional measures are revoked or where they lapse due to any act or omission by the applicant, or where it is subsequently found that there has been no infringement or threat of infringement of an intellectual property right, the judicial authorities shall have the authority to order the applicant upon request of the defendant, to provide the defendant appropriate compensation for any injury caused by these measures.[33]

---

[32] Ibid Art. 50.6.

[33] Ibid Art. 50.7.

Final injunctions

Article 44 permits the judicial authorities 'to order a party to desist from infringement, inter alia, to prevent the entry into channels of commerce in their jurisdiction of imported goods that involve the infringement of an intellectual property right'.[34] The remedy of injunction is usually granted on a discretionary basis. Among the factors considered are whether: (a) damages provides an adequate remedy; (b) the order will require constant supervision by the court; (c) the applicant has engaged in some disentitling conduct, such as its own infringing activity; and (d) the applicant has delayed in seeking its remedy or has acquiesced in the respondent's conduct.

Another discretionary ground which is contained in Article 44 is that Members are not obliged to accord the remedy of injunction 'in respect of protected subject matter acquired or ordered by a person prior to knowing or having reasonable grounds to know that dealing in such subject matter would entail the infringement of an intellectual property right'. It is difficult to see the justification for this qualification and how it will operate in practice. Article 50 permits the grant of provisional measures to prevent an infringement occurring on the application of a single party, where appropriate.[35] A respondent may at that time discover that the products which it has purchased are infringing, but it cannot be enjoined from selling those products under Article 44, since it acquired the knowledge of infringement after the date of the contract of acquisition. Some sense may be made of this qualification by virtue of the fact that the respondent would still be liable to pay damages if it persisted in distributing infringing products.

3.2.5 Damages and Compensation

Article 45.1 provides that the judicial authorities shall have the authority to order 'the infringer to pay the rights holder damages adequate to compensate for the injury...suffered because of an infringement of that persons intellectual property right by an infringer who knowingly, or with reasonable grounds to know, engaged in infringing activity'.[36] There is no assistance contained in Article 45.1 to deal with the complex issue of quantifying the

[34] Ibid Art. 44.

[35] Ibid Art. 50.

[36] Ibid Art. 45.1.

damages suffered as the result of an intellectual property infringement. Where the plaintiff and defendant are competitors, the measure of damages is likely to be what the defendant would have had to pay for a licence if one had been requested. Alternatively, the court may look to the losses which the plaintiff has suffered, which are conveniently assessed on the basis of the profits made by the defendant.

A particular problem arises in with assessing the losses suffered by a trader where the parties do not compete in the same market. For example, in the case of the counterfeiting of prestige branded products, invariably the defendants are the producers of large quantities of inferior products which are sold to an entirely different class of consumer to those which purchase the genuine article. Infringement is undeniable, but the plaintiff will not directly have lost customers to the counterfeiter. On the other hand some customers may have been lost if the presence of large quantities of counterfeits has depreciated the cachet of the genuine product. The computation of the plaintiff's losses in this situation will be extremely difficult. Article 45.1 is couched in the language of compensation for injury suffered. An alternative approach may have been to provide the option for the defendant to provide an account of profits. Obliging a counterfeiter of low quality products to disgorge its profits, obviates the difficult calculation of the impact which the sale of those counterfeits may have upon the business of the trademark owner.

3.2.6 Guilty Knowledge

Article 45.1 provides for compensation orders against infringers 'who knowingly, or with reasonable grounds to know, engaged in infringing activity'. A general standard of reasonableness is usually applied to the question of guilty knowledge. The courts have taken the view, for example that a person who copies a new product ought to have inquired whether it was patented. Conventionally, the existence of relevant knowledge is sought to be established by the delivery of a cease and desist letter to an infringer. A continuation of infringing activity after receipt of such a letter is evidence of guilty knowledge. Article 45.2 permits Members to authorise the judicial authorities 'to order the recovery of profits and/or payment of pre-established damages even where the infringer did not knowingly, or

with reasonable grounds to know, engage in infringing activity'.[37] This kind of remedy is usually ordered in cases of unfair competition[38] or passing off[39].[40]

3.2.7 Costs

Article 45.2 permits judicial authorities 'to order the infringer to pay the rights holder expenses, which may include appropriate attorney's fees'. These expenses can also include court filing fees, witnesses' expenses and any costs involved in preparing evidence. The Article upholds the interest of the rights holder and creates a safe cushion for them to fight for their right in cases where it comes under threat from perpetrators. The comment to the drafting of the TRIPS[41] says that the Article 45.2 'contains a '*may*' provision which allows WTO members to give their courts the power to award, *apart* from compensatory damages, recovery of profits made by the infringer...'.[42] WTO members choosing to rely on Article 45.2 to allow the recovery of profits are provided with assistance to differentiate compensatory damages. Article 45.2 being available from Article 45.1, infers that proof of

[37] Ibid Art. 45.2.

[38] Article 10bis of the Paris Convention for Protection of Industrial Property requires signatories to provide protection against unfair competition, which is defined as 'any act of competition contrary to the honest practices in industrial or commercial matters.' For more details, please see Paris Convention for the Protection of Industrial Property, Art. I Obis(l)-(2), July 14, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305, available at http://www.wipo.int/export/ sites/www/treaties/en/ip/paris/pdfltrtdocs-wo020.pdf.

[39] The concept of passing off lies at the heart of the system of trademark protection in the common law countries. It is rooted in the common law action for deceit. Although intent to deceive was originally an element of the action, it is no longer required, as the focus of the tort has shifted to the effect on consumers. While the tort has expanded considerably over time, causing observers to remark on its 'protean qualities,'' 1 it still does not approach the broad concept of unfair competition law as recognized in continental Europe, because it is not a general action for misappropriation of the intangible value of a mark. The essential elements of a traditional passing off claim (often called the 'classic trinity') are: (1) goodwill-an ill-defined term that refers to the consumer's desire to purchase goods because of their association with a mark, (2) misrepresentation as to source, and (3) a likelihood of damage to goodwill as a result of the misrepresentation. 13 In its classic form, passing off occurs when a merchant places a competitor's trademark on goods or services in order to deceive or confuse the rival's customers into purchasing the mislabelled goods. See Vennootschap v. J Townend & Sons (Hull) Ltd., [1979] A.C. 731 (H.L.) 742 (appeal taken from Eng.); Reckitt & Colman Prods. Ltd. v. Borden, Inc., [1990] R.P.C. 341 (H.L.) 406 (U.K.); BMW Canada, Inc. v. Nissan Canada, Ind., [2007] F.C.J. No. 991, 30 (Can. Ont.).

[40] LaFrance, Mary, 'Passing Off and Unfair Competition: Conflict and Convergence in Competition Law' (2011) 2011(1413) *Michigan State Law Review* 1417 - 1418.

[41] Gervais, Daniel (ed), *TRIPS Agreement, Drafting History and Analysis* (Thompson Sweet & Maxwell, 2nd ed, 2003) 32.

[42] Ibid 299.

loss by the plaintiff is irrelevant. Moreover, unlike Article 45.1, Article 45.2 is expressly not a fault-based provision. Hence, the state of mind of the defendant is also irrelevant.

Article 45.2 could be invoked in the problematic situation where parties do not compete in the same market. Therefore, the difficulty of assessing losses could be avoided by way of restitutionary remedies. For example

> In the case of counterfeiting of prestige branded products, invariably the defendants are the producers of large quantities of inferior products which are sold to an entirely different class of consumer to those who purchase the genuine article. Infringement in undeniable, but the plaintiff will not directly have lost consumers to the counterfeiters.[43]

3.2.8 Other Remedies

Article 46, under the justification of creating an effective deterrent to infringement, allows Members to empower the judicial authorities 'to order that the goods which they have found to be infringing be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to avoid any harm caused to the rights holder'. [44] Alternatively, where existing constitutional requirements so permit, the infringing goods may be destroyed. A constitutional obstacle which exists in some jurisdictions is the obligation to provide 'just terms' for any goods which are compulsorily acquired.

A supplementary power which is conferred upon the judicial authorities is the power 'to order that materials and implements, the predominant use of which has been in the creation of the infringing goods' be similarly disposed of outside the channels of commerce' in such a manner as 'to minimise the risks of further infringements'.

In considering requests for orders to dispose of or destroy infringing goods and equipment used to produce such goods, the judicial authorities are required to take into account 'the

[43] Blakeney, Michael, *Trade Related Aspects of Intellectual Property Rights: A Concise Guide to the TRIPS Agreement* (Sweet & Maxwell, 1996) 129.

[44] WTO, above n 2, Art. 46.

need for proportionality between the seriousness of the infringement and the remedies ordered as well as the interests of third parties'. In the case of counterfeit trademark goods, Article 46 indicates that 'the simple removal of the trademark unlawfully affixed shall not be sufficient, other than in exceptional cases, to permit the release of goods into the channels of commerce'.

3.2.9 Right to Information

A particularly useful innovation is the authority which is conferred by Article 47 'to order the infringer to inform the right holder of the identity of third persons involved in the production and distribution of the infringing goods or services and of their channels of distribution'.[45] Article 47 counsels the exercise of this power where it is not 'out of all proportion to the seriousness of the infringement'. No guidance is provided as to how seriousness is to be evaluated nor whether the touchstone of seriousness is damaging to the party seeking the information, or whether from the perspective of the public interest in suppressing wrongful acts. For example, the large-scale counterfeiting of low quality trademarked goods may be of minimal concern to a trader producing high quality products which are not likely to be confused with the counterfeiter's products. However there may be a public interest in the protection of consumers from the poorer quality goods. There may also be a more fundamental public interest in inculcating an ethos of commercial morality.

3.2.10 Indemnification of the Defendant

Where 'enforcement measures have been abused' Article 48.1 provides that the judicial authorities shall have the authority to order a party 'at whose request enforcement measures were taken' to provide 'adequate compensation for the injury suffered because of such abuse' to a person wrongfully enjoined or restrained. Article 48.1 also provides for the applicant to be ordered to pay the defendant's 'appropriate attorney's fees'.[46] Compensation may cover both the injury suffered by the defendant and his/her expenses, which may include, as mentioned earlier, appropriate attorney's fees.

[45] Ibid Art. 47.

[46] Ibid Art. 48.1.

The phrase ‘a party wrongfully enjoined or restrained’ appears to be designed merely to identify a party – namely a defendant. The provision is not free from ambiguity. The provision states that compensation is to be paid ‘because of such abuse’. It is not clear whether ‘abuse’ refers to the proceedings more generally, the enforcement proceedings alone, or the wrongful enjoining and restraining of the defendant.

3.2.11 Exemption of Public Officials

A problem about which rights holders have complained in some jurisdictions is the caprice and abusiveness of the implementation of administrative procedures by public officials concerned in the enforcement of intellectual property rights. This is perceived to be particularly the case where the litigant is a foreign party. Article 48.2 provides that in relation to the administration of any law pertaining to the enforcement of intellectual property rights, exemption will be provided to public authorities and officials ‘only...where actions are taken or intended in good faith in the course of the administration of that law’.[47]

Though Article 48.2 does not differentiate with regard to the party that may claim remedial action, it is included under the ‘Indemnification of the Defendant’. This indicates that it is intended to protect the defendant from abuses committed with the intervention of public authorities, in logical connection to Article 48.1.

A Member may be able to comply with Article 48.2 without placing undue risk of civil liability upon its officials by providing in its law a presumption that an official has acted in good faith unless the claimant can establish otherwise. The Article provides that Members ‘shall only exempt both public authorities and officials from liability to appropriate remedial measures’. It is not entirely clearly as to what is referred to as ‘appropriate remedial measures’. These actions may differ from those regarding non-officials. It may be appropriate, for instance, to provide for a more restrictive range of circumstances in which action can be taken against an individual official where an applicant is otherwise compensated by the state for the injury caused by the official.

[47] Ibid Art. 48.2.

3.2.12 Criminal Sanctions

Overview

Article 61 provides that Members shall provide for criminal procedures and penalties 'to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale'. Among the criminal sanctions which are listed in the Article are:

> [I]mprisonment, and/ or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for fines of a corresponding gravity'. Also in appropriate cases, Article 61 provides for 'the seizure, forfeiture and destruction of the infringing goods and any materials and implements the predominant use of which has been in the commission of the offence.[48]

Article 61 also provides for criminal procedures and penalties to be applied in other cases of infringement of intellectual property rights, 'in particular where they are committed wilfully and on a commercial scale'.[49]

Burden of Proof

A consequence of providing for 'criminal procedures' in the case of certain wilful infringements is that a higher standard of proof will apply than that which is required in civil proceedings. In systems of justice derived from the British model the standard will be beyond reasonable doubt. The burden of proof will usually be carried by the prosecution.[50] Where defences exist, the defendant will usually carry the burden of making out the defence, usually on the balance of probabilities. Article 34 of the TRIPS Agreement specifies situations in which the burden of proof lies with the alleged infringer. In such cases, the alleged infringer must prove that the process to obtain an identical product is different from the patented process. Presumption of infringement in at least one of the two specified circumstances is required: (a) product obtained by patented process is new, or (b) substantial likelihood that the identical product was made with patented process. There is no WTO jurisprudence on this provision. In a case settled between USA and Argentina after consultation, the Argentine government agreed to amend its patent law in order to

[48] Ibid Art. 61.

[49] Ibid.

[50] Panel Report, above n 17, para 7.180.

comply with Article 34.1. The proposed amendment opts for the alternative provided for under Article 34.1(a).[51]

Interestingly this provision has no counterpart in either the Paris Convention or the European Patent Convention, both of which leave the question of onus of proof to national law. However, Article 35 of the Community Patent Convention provides that

> 1. If the subject-matter of a Community patent is a process for obtaining a new product, the identical product when produced by any other party shall, in the absence of proof to the contrary, be deemed to have been obtained by the patented process.
> 2. In the adduction of proof to the contrary, the legitimate interests of the defendant in protecting his manufacturing and business secrets shall be taken into account.

In implementing the rule on reversal of burden of proof mandated by TRIPS, some countries opted for alternative (a),[52] others for alternative (b),[53] while many incorporated both conditions set out in Article 34.1.[54]

Knowledge

Article 61 permits the institution of criminal penalties in the case of wilful infringement.[55] As a matter of practice it is not uncommon in intellectual property disputes for a complainant to send a cease and desist notice to an alleged infringer to put them on notice that they may be infringing the complainant's intellectual property rights. This may,

[51] With regard to the definition of 'new', the proposed amendment reads as follows: '[I]t shall be presumed that, in the absence of proof to the contrary, the product obtained by the patented process is not new if the defendant or if an expert appointed by the court at the request of the defendant is able to show that, at the time of the alleged infringement, there exists in the market a non-infringing product identical to the one produced by the patented process that originated from a source different from the right owner or the defendant'. See *Argentina - Patent Protection for Pharmaceuticals and Test Data Protection for Agricultural Chemicals (WT/DS171) - Argentina - Certain Measures on the Protection of Patents and Test Data (WT/DS196) - Notification of Mutually Agreed Solution According to the Conditions Set Forth in the Agreement*, WT/DS171/3, WT/DS196/4, IP/D/18/Add.1, adopted on 20 June 2002.

[52] See, such as, Argentine patent law 24.481 (Article 88)

[53] This alternative is often found, for instance, in bilateral agreements concluded between the USA and former centrally managed economies.

[54] See, such as, Indonesian patent law No. 14 of year 2000 (Article 119); Industrial Property Common Regime of the Andean Community, Decision 486 (Article 240).

[55] WTO, above n 2, Art. 61.

however, be unrealistic in cases of large-scale copyright piracy and trademark counterfeiting, particularly where the perpetrators may be involved in organised crime.

A particular problem in proving the Wilfulness of corporate defendants is in identifying the persons whose state of mind is relevant to the culpability of the corporation. Generally speaking, a company is liable for the acts and knowledge of persons who could be described as part of the directing mind and will of the company. These would include the board of directors, the managing director and other superior officers who carry out the functions of management and who speak for the company. The persons who are treated in law as the company are to be found by identifying those natural persons who by the memorandum and articles of association, or as the result of action taken by the directors, or by the company in general meeting pursuant to the articles, are entrusted with the exercise of the powers of the company.

Quantification of Penalties

The degree of wilfulness or deliberation in the infringing conduct will have a bearing on the size of any pecuniary penalties which are imposed. Also relevant as a quantification factor will be the multiplicity of offences by a defendant and the recurrence of similar offences. Article 61 of the TRIPS Agreement deals with criminal procedures and penalties for infringement. It requires criminal procedures and penalties to be provided at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale.[56] It requires the remedies of imprisonment and/or monetary fines for crimes of a corresponding gravity. In appropriate cases, the remedies must also include 'seizure, forfeiture and destruction of the infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence'.[57] Article 61 also refers to the deterrent effect of penalties. This will involve a consideration of the capacity of the defendant to pay, the incentives for wrongdoing and the likelihood of recurrence. The

[56] Members may, but are not obliged to, extend the application of criminal procedures and penalties to other cases of IP infringement, in particular where they are committed wilfully and on a commercial scale. The panel in China – Intellectual Property Rights (2009) did not endorse thresholds applied by China, but concluded that the factual evidence presented by the united States was inadequate to show whether or not the cases excluded from criminal liability met the TRIPS standard of 'commercial scale' when that standard is applied China's marketplace. See Panel Report, above n 17, para. 7.614.

[57] A. Taubman, H. Wager and J. Watal (eds), *A Handbook on the WTO TRIPS Agreement* (Cambridge University Press, 2012) 152.

essence of the provision, hence, is to outline the various modes of offences and the related penalty options.

3.3 Border Measures in the TRIPS Agreement

A key feature of the TRIPS Agreement is the obligation of members to introduce border measures for the protection of intellectual property rights.[58] Given the concern about the trade in pirated and counterfeit goods which precipitated the interest of GATT in intellectual property protection, it was probably to be expected that the architects of the TRIPS Agreement would look to the customs authorities to assist in the interdiction of this trade. It is obviously more effective to seize a single shipment of infringing products while they are in transit, rather than to await their distribution in the market. Section 4 of Part III of the TRIPS Agreement establishes a scheme for suspension of the release into circulation of suspected counterfeit trademark or pirated copyright goods. This suspension may be on the application of a right holder or pursuant to *ex officio* action by the border authorities.[59]

The stratagem of utilising border seizure to control trade in infringing goods is foreshadowed in the Paris Convention, which in Article 9.1 provides that 'all goods unlawfully bearing a trademark or trade name shall be seized on importation into those countries of the Union where such mark or trade name is entitled to protection'.[60] It was envisaged in Article 9.3 that this seizure would take place at the request of 'the public prosecutor, or any other competent authority, or any interested party'.[61] The Paris Convention contains no provisions providing for the seizure upon importation of other intellectual property infringements.

In any event, as a matter of practice, although a number of countries had provided for the seizure by customs authorities of goods bearing infringing trademarks, this seemed to be

[58] WTO, above n 2.

[59] Ibid.

[60] WIPO, *Paris Convention for the Protection of Industrial Property* WIPO <http://www.wipo.int/treaties/en/text.jsp?file_id=288514> Art. 9.1 (accessed on 18 April 2013).

[61] Ibid, Art. 9.3.

more symbolic than real.[62] The priorities for customs authorities had been the collection of trade-related revenues and the control of the trade in weapons, drugs and noxious substances. Their resources and expertise did not equip them to deal with the trade in intellectual property infringements.[63] Given these fact, it can be safely said that the identification of intellectual property protection as a trade-related issue has obliged the customs authorities to reorder their priorities.

In the Republic of Korea three authorities are involved in enforcement of its Border Control provisions:[64]

- Korean Customs Service.
- Anti-Counterfeiting Division, Korean Industrial Property Office (KIPO).
- Criminal Division Supreme Public Prosecutor's Office.

The Customs Department has established a Trademark Declaration System, which provides for the registration by trademark owners of matters concerning their trademark, including:

- Name of the right owner.
- Contents and scope of the trademark right.
- Names of exporters or importers, or exporting or importing countries that may possibly infringe the trademark right.

The Commissioner of the Korean custom service has the authority of investigation equivalent to that of the prosecution and carries out the investigation jointly with the Public Prosecutor's Office, or under the supervision of the Prosecutor's Office. If an infringement is found the case is referred to the Public Prosecutor's Office.[65] The KIPO is concerned with offences against the Unfair Competition Prevention Law. This Act prohibits

[62] Syed Saifuddin Hossain, 'Border Enforcement of IPR Laws in Australia' (2009) 4(1) *Global Trade and Customs Journal* 11.

[63] Stijn Hoorens et al, 'Measuring IPR infringements in the internal market: Development of a new approach to estimating the impact of infringements on sales' (European Union, 2012) 178.

[64] Korea Customs Services, <http://www.customs.go.kr/kcshome/site/index.do?layoutSiteId=english> (accessed on 2 December 2013).

[65] Ibid.

trademark infringements and the deceptive use of marks. After investigation, the case is referred to the Public Prosecutor's Office.

3.3.1 Suspension of Release of Goods by Customs Authorities

The key border control provision of the TRIPS Agreement is Article 51 which requires Members to adopt procedures to enable a right holder, who has valid grounds for suspecting that the importation of counterfeit trademark or pirated copyright goods may take place, to lodge an application with competent authorities, administrative or judicial, for the suspension by the customs authorities of the release into free circulation of such goods. As a footnote to this provision, the term 'counterfeit trademark goods' is defined to mean 'any goods, including packaging, bearing without authorisation a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation'.[66] The term 'pirated copyright goods' is defined to mean 'any goods which are copies made without consent of the rights holder in the country of production and which are made directly or indirectly from any article where the making of that copy would have constituted an infringement of a copyright or a related right under the law of the country of importation'.[67]

In addition to the suspension of release of goods involving a suspected counterfeit trademark, or which are pirated copyright goods, Article 51 also provides that an application for suspension may also be made in respect of other intellectual property rights infringements, such as carrying ornamentation which infringes a registered design or involving production in breach of a patented process.[68]

The Article also provides that the procedures for the suspension of imported goods also apply to the 'release of infringing goods destined for exportation from their territories'. On its wording this provision could permit the seizure of goods originating within the country

[66] WTO, above n 2, Art. 51.

[67] Ibid.

[68] Ibid.

served by the customs authority, as well as goods which are in transit, having originated in another country. As a matter of practice, the customs authorities are not particularly well suited to dealing with goods which are being shipped from the hinterland as the perspective of the customs authorities tends to be outward facing. However, there is no reason why they cannot scrutinise goods passing in both directions.

Members are obliged to adopt procedures as mandated in Article 51 only with regard to counterfeit trademark or pirated copyright goods, and not in respect of other types of infringement concerning trademarks (for example 'passing off', improper use of trademark)[69] or copyright (such as substantial similarity, adaptation without the author's permission)[70]. This provision does not apply either to other types of intellectual property rights. The reason for this differentiation is that infringement in the case of trademark counterfeiting and copyright piracy may generally be determined with certain ease, on the basis of the visual inspection of an imported good, since infringement will be apparent 'on its face'.

The Article does not apply to a Member of the WTO which 'has dismantled substantially all controls over movement of goods across its border with another Member with which it forms part of a customs union'. For example, the EU provides in its statutes for the free movement of goods between member countries.[71]

[69] In this context, it is important to clarify the difference between, 'counterfeit trademark goods' as covered by Art. 51 and 'passing off', which is not encompassed by this provision. The notion of 'counterfeit trademark goods' as defined in footnote 14 to Art. 51 requires the existence of a registered trademark, which is used by an unauthorised third party, thereby infringing the exclusive right of the trademark owner. By contrast, the doctrine of passing off (also known as 'palming off') is much wider, referring to unfair competition more generally, applying also to cases where no trademarks or other IPRs are involved. 'Passing off' broadly refers to causes of action based on the injury that is suffered by a business through a false representation by a competitor that its product comes from the same source. Thus, passing off is a broader category that trademark counterfeiting, encompassing the latter, but going beyond such cases. Those cases of passing off that do not involve trademarks are therefore not covered by Art. 51. On the common law doctrine of passing off, see W. R. Cornish, *Intellectual Property: Patents, Copyrights, Trade Marks and Allied Rights* (4th ed, 1999) Chapter 16.

[70] It appears useful to highlight the difference between the copyright cases covered by Art. 51 and the situations that fall outside the scope of this provision. Copyright piracy within the meaning of Art. 51 and its footnote 14 requires the copying of a copyrighted good, as of, but substantially similar to the protected work, or that modifies the protected work without the right holder's authorisation. Such cases do not fall within the category of 'pirated copyright goods'.

[71] Blakeney, above n 43.

It is clear that right holders applying for border measures must provide adequate evidence satisfying the competent authorities that there is prima facie an IPR infringement under the importing country's laws. This task is facilitated where rights are subject to registration, but may prove more difficult in regard to those rights which are not based on registration, such as copyright-protected works, and which therefore may require customs to development some IPR expertise. The right holder is also due to supply a sufficiently detailed description of the goods concerned so as to facilitate their identification by customs authorities. The competent authorities shall then inform the applicant within a reasonable period about the acceptance of the application and for how long they will take the requested action, where the latter has been determined by the authority.

3.3.2 Application Process

Article 52 provides that:

> Any right holder initiating the procedures under Article 51 shall be required to provide adequate evidence to satisfy the competent authorities that, under the laws of the country of importation, there is prima facie an infringement of the right holder's intellectual property right and to supply a sufficiently detailed description of the goods to make them readily recognizable by the customs authorities.[72]

In relation to those intellectual property rights which are obtained by registration, such as trademarks, registered designs and patents, it would be reasonable for a customs authority to require submission of documentary proof of ownership of that right, such as a copy of the relevant registration certificate, by an applicant for suspension. Particular problems will arise in relation to those rights which do not arise from registration in the jurisdiction. In practice, the most important of these will be well-known trademarks and copyrighted works.

Article 52 requires the competent authorities to inform (whether in written form or not)[73] the applicant 'within a reasonable period' whether they have accepted the application and,

[72] WTO, above n 2, Art. 52.

[73] The requirement to inform in a written form applies to decisions on the merits or the case (Article 41.3) and in respect of notices to the defendant (Article 42).

where determined by the competent authorities the period for which the customs authorities will take action. Only a 'reasonable period', to be determined by the member's national law is required. Notification need not be immediate or 'without delay' as provided for, for instance, under Article 50.4. The notification may include information about the period for which the customs authorities will detain the goods, where the competent authority has established such a period.[74]

While both the European Commission's Office (ECO) and the European Union have made reference to relatively short, effective terms of the applications, the USA, though not alone, has, perhaps, gone to the other end of the spectrum.[75] The US regulations regarding the effective terms for trademarks and copyrights state that, as long as the rights remain in force and valid, both trademarks and copyrights will be protected for a period of 20 years.[76]

Well-known trademarks are those which have such a great international reputation that they are capable of protection in a country even without registration. Where the proprietor of a well-known mark applies to suspend the release into free circulation of goods which allegedly infringe a well-known trademark, the customs authorities will be obliged, *first*, to determine the well-known status of the mark; and *secondly*, in the absence of registration documents, to determine whether the goods which are the subject of the application, infringe the well-known trademark.[77] This will require the border authorities to develop some intellectual property expertise, or the development of close liaison with the intellectual property authorities.

---

[74] The Anell Draft of July 23, 1990, indicated in a bracketed text that was not finally adopted, the applicant's obligation to specify the length of the period for which the customs authorities would be requested to take action.

[75] <http://www.customs.gov.au/webdata/resources/files/FD_ProtectingIntellectualProperty.pdf> (accessed on 28 April 2014). China's amendments to its Customs IPR regulations lengthened the effective period of applications from seven to 10 years.

[76] T.P. Trainer and V.E. Allums, *Protecting Intellectual Property Rights Across Borders* (Thomson/West, 2010) 717.

[77] Robert T. Green and Tasman Smith, 'Countering Brand Counterfeiters' (2002) 10(4) *Journal of International Marketing* 87.

A similar problem will arise in relation to pirated goods where the border authorities will have to develop sufficient expertise to be able to satisfy itself on the question of ownership of copyright and on the subject of infringement. Following receipt of an application for suspension, the competent authorities are required by Article 52 to inform the applicant 'within a reasonable period whether they have accepted the application' and, where it has been determined, the period within which action will be taken by the competent authorities. Hence, both the severity of the infringement as well as the actions taken by the competent authorities are of crucial importance in ensuring an acceptable decision by all parties in cases of IPR violation.

3.3.3 Security or Equivalent Assurance

To protect persons who are the subject of an application for suspension and also the competent authorities from abuse, Article 53.1 empowers the competent authorities to require the provision of 'a security or equivalent assurance to protect the defendant and the competent authorities'. However, Article 53.1 provides that the requirement of a security or equivalent assurance shall not unreasonably deter recourse to these procedures.

In certain limited circumstances, Article 53.2 provides for the release of suspended goods upon the payment by a defendant of an amount sufficient to protect the right holder for any infringement as security.[78] The Article states:

> Where pursuant to an application under this Section the release of goods involving industrial design, patents, layout-designs or undisclosed information into free circulation has been suspended by customs authorities on the basis of a decision other than by judicial or other independent authority, and the period provided for in Article 55 has expired without the granting of provisional relief by the duly empowered authority, and provided that all other condition fro importation have been complied with, the owner, importer, or consignee of such goods shall be entitled to their release on the posting of a security in an amount sufficient to protect the right holder for any infringement. Payment of such security shall not prejudice any other remedy available to the right holder, it being understood that

[78] WTO, above n 2, Art. 53.2.

> the security shall be released if the right holder fails to pursue the right of action within a reasonable period of time.[79]

This procedure applies (a) where there has been a suspension of goods involving industrial designs, patents, layout designs or undisclosed information by customs authorities on the basis of an administrative decision which has not been reviewed by a judicial or independent authority; (b) the period prescribed by Article 55 for notification to the customs authorities of commencement of proceedings to determine the merits has expired; and (c) all other conditions for importation have been complied with. Article 53.2 provides that the payment of such security shall not prejudice any other remedy available to the right holder and that the security shall be released if the right holder fails to pursue the right of action within a reasonable period of time.

In those Member States that implement the application procedure for these additional types of IPR, the importer, consignee, or owner must be given an opportunity to post security and obtain release of the goods in certain circumstances. The circumstances in which release of suspect goods under bond or security should be available is when the decision to suspend release has been made without any judicial decision or order or without any decision or order of an independent authority. Thus, this may be a situation where the IPR owner has filed an application and Customs or other designated authority suspects infringement and no order or decision to continue holding the goods is rendered by the court or other relevant decision-making body. In such cases, the owner, importer, or consignee can post security or bond and obtain custody of the goods subject to further possible enforcement/legal procedures under which the IPR owner may be able to obtain relief.

In Europe, the 2003 EC Regulations depart from the TRIPS Agreement and decreases the burdens on right holders seeking border measures. Rather than requiring security when a shipment is suspected of containing infringing goods, the Regulation states that applications for border enforcement will include the IPR owner's declaration accepting liability in the event that the procedures for border measures are discontinued due to an act

[79] Ibid.

of the IPR owner or in the event that no infringing goods are found.[80] The declaration takes the place of an actual deposit of a monetary instrument. While all IPR owners benefit from this approach, small and medium enterprises in the Member States may be the real beneficiaries because they can use the border enforcement system without incurring immediate financial burdens.

In the various free trade agreement entered into by the US, the general approach to the security and equivalent assurance issue has been in line with TRIPS Article 53.[81] Unlike the EU's approach, which allows more right holders to use the system, the US and its free trade agreement partners have not adopted the 'declaration' approach that would have benefits for smaller enterprises that may be victims of IPR theft.

3.3.4 Notice of Suspension

Article 54 provides for the prompt notification of both the importer and the applicant of the suspension of the release of goods under Article 51. It stipulates that both parties must be notified if the suspension of the release of goods has been decided by the competent authority. Though this may be interpreted as equivalent to 'undue delay' [82] or 'immediately'[83], there is also some latitude here to determine the exact period. Of course, given the economic consequences that an unjustified suspension may entail, it would be to

[80] Council Regulation (EC) No. 1383/2..3, Article 6 states:

> 1. Applications for action shall be accompanied by a declaration from the right-holder, which may be submitted either in writing or electronically, in accordance with national legislation, accepting liability towards the persons involved in a situation referred to in Article 1(1) in the event that a procedure initiated pursuant to Article 9(1) is discontinue owing to an act or omission by the right-holder or in the event that the goods in question are subsequently found not to infringe an intellectual property right.
>
> In that declaration the right-holder shall also agree to bear all costs incurred under this Regulation in keeping goods under customs control pursuant to Article 9 and, where applicable, Article 11.
>
> 2. Where an application is submitted under Article 5(4), the right-holder shall agree in the declaration to provide and pay for any translation necessary; this declaration shall be valid in every Member State in which the decision granting the application applies.

[81] US-China Free Trade Agreement, Chapter 17, Article 17.11.18. The Article states:

> Each Party shall provide a reasonable security or equivalent assurance sufficient to protect the defendant and the competent authorities and to prevent abuse. Such security or equivalent assurance shall not unreasonably deter recourse to these procedures.

[82] WTO, above n 2, Art. 41.3.

[83] Ibid, Art. 44.1 and 50.1(c).

the benefit of both the applicant and of the importer (and also of the competent authority) that notice be given as soon as feasible.

The WCO, although not specifying a period of time, recommends that Customs authorities notify the interested parties immediately upon suspending the release of suspect shipments. In Article 6(2), it states:

> Customs shall immediately inform the importer, exporter, consignee or the consignor and the applicant of the suspension of the clearance of the goods or of the detention of goods destines for exports or goods in transit and shall state the reasons for such suspension or detention.[84]

It is worth noting that WCO's text makes references to the exporter, in addition to the other parties, as a result of its recommendation to the Customs administration to apply the border enforcement measures to goods destines for export and goods in transit. The new European Council Regulation does not elaborate on the promptness of notice to the interested parties in the event of a suspension of release.

Similarly, the free trade agreements concluded between the US and its trading partners do not address the specific point in the sections concerning border measures. To the extent that US law may be instructive, the general provision regarding notice to parties when goods are detained instructs Customs and Border Protection to issue notices of det3ention within five days.[85] The examples provided, whether recommendations or legally required, indicate the necessity and urgency of the authorities to contact the relevant parties. In Japan, for example, upon detection of goods suspected of infringement, Japanese Customs sends a written notice to the IPR owner and importer so that the parties can provide additional information to Customs regarding their respective positions regarding the detained goods.[86] In India, the Deputy Commissioner of Customs or Assistant Commissioner of Customs shall immediately inform the importer and the right holder or

[84] WCO, 'WCO Model IPR Legislation' (2004) <http://www.tafa-r.org.tw/forum/20110816/20110816WCOModelLawfinal.pdf> Article 6(2).

[85] Trainer and Allums, above n 76, 727.

[86] Government of Japan, <http://www.meti.go.jp/policy/ipr/eng/infringe/custom/index.html> (accessed on 9 December 2013).

their respective authorised representatives through a letter issued by speed port or through electronic mode of the suspension of release.[87]

Indonesia has implemented its TRIPS obligations through a battery of legislation, which provides that right holders can either approach the District Court of Customs for a suspension of the importation of infringing goods.[88] The National Police play an active part in the investigation of complaints, with the assistance of rights holders.

It is, therefore, the responsibility of the relevant border agency to inform the parties concerned about the suspension of release of the goods suspected to be infringing IPR.

3.3.5 Duration of Suspension

Article 55 provides for the release of suspended goods by the customs authorities, provided that all other conditions for importation or export have been complied with, if 'within a period not exceeding 10 working days after the applicant has been served notice of the suspension, the customs authorities have not been informed that proceedings leading to a decision on the merits of the case have been initiated by a party other than the defendant, or that the duly empowered authority has taken provisional measures prolonging the suspension of the release of the goods'.[89] The Article provides for an extension of the time-limit by another 10 working days in 'appropriate cases'.[90]

Where proceedings leading to a decision on the merits of a case have been initiated, the defendant is permitted by Article 55 to request a 'review, including a right to be heard' with a view to deciding, within a reasonable period, 'whether these measures should be

[87] See, Notification No. 47/2007-Customs (N.T.), Suspension of Clearance of Imported Goods, 7(2), (May 8, 2007).

[88] 1997-Law No. 12: revision of the 1982-Law No. 6 , revision of the 1987-Law No. 7 relating to copyrights; 1997-Law No. 13: revision of the 1989-Law No. 6 relating to patent rights; 1997-Law No. 14: revision of the 1992-Law No. 19 relating to trademark rights and 1997-Presidential Order No. 15 relating to the improvement on the 1979-Presidential Order No. 24 relating to the ratification of the Paris Convention and the convention for establishing the World Intellectual Property Organization (WIPO) for the protection of industrial property rights; 1997-Presidential Order No. 18 relating to the ratification of the Bern Convention for the Protection of Literary and Artistic Works.

[89] WTO, above n 2, Art. 55.

[90] Ibid.

modified, revoked or confirmed'. Finally, Article 55 provides that where the suspension of the release of goods is carried out or continued in accordance with a provisional judicial measure, Article 50.6 shall apply to require that the suspension shall be revoked or cease to have effect if proceedings leading to a decision on the merits of the case are not initiated within a reasonable period, to be determined by the judicial authority, or, in the absence of such a determination, within 20 working days or 31 calendar days, whichever is the longer.

An issue that is often overlooked is the emphasis on working days, which must be distinguished from calendar days. From the clear reference to 'working days', there must be some reason or the text to differentiate working days from calendar days, although this is not explained. In the absence of any explanation or reason for this distinction in the TRIPS Agreement text, a brief discussion is warranted.

In those countries where IP owners must engage multiple government entities or branches, the 'working days' reference can become extremely important in obtaining the necessary orders to prevent the release of suspect goods.

From Customs perspective, goods are arriving daily and may be processed on a 24/7 basis and, therefore, there may be no difference between working days and calendar days. From a judicial perspective, the courts may be available to IPR owners only on five-day work week basis. In view of the potential need to obtain a court order (or an order from another agency) to prolong a suspension of release within a specific time period, it is important for the right holders and the government authorities to understand that the working days should be consistent with the working days of the relevant authority that grants the order to prolong the suspension of release. In absence of such a clear understanding, the right holder may lose valuable time to obtain the necessary order.

3.3.6 Indemnification of the Importer and of the Owner of Goods

Where the importer, consignee and the owner of goods suffer injury through the wrongful detention of goods, or through the detention of goods released under Article 55, Art 56 provides specific power to relevant authorities. It states:

> [r]elevant authorities shall have the authority to order the applicant to pay the importer, the consignee and the owner of the goods appropriate compensation for any injury caused to them through the wrongful detention of goods or through the detention of goods released pursuant to Article 55.[91]

The compensation must be sufficient to cover 'any injury caused', which may include lost benefits due to the detention, and expenses incurred (for example, attorney's fees). Compensation is to be paid to the importer, the consignee and the owner of the goods, that is, the applicant is liable to indemnify all those who may have suffered an economic loss because of the border measure.[92]

The 'relevant authorities' referred to in the above Article may be any one of a number of authorities designated by the government, such as, the courts, Customs administration, or other entities of the government. Nevertheless, some entity must have the authority to order the applicant for border measures to pay the injured party (the importer, consignee, and/or the owner of the goods). According to the Article, it does not seem to be the intent of the drafters that the applicant for border measures must pay absent a showing of injury in view of the plain language of the text, the importer, consignee, and/or the owner of the goods should demonstrate that an injury was caused as a result of the suspension of release. Therefore, the applicant's requirement to pay the importer, consignee, and/or the owner of the goods appears to be dependent upon an evidentiary showing of injury.[93] Despite the apparent simplicity of this Article, the importer, consignee, and/or owner of the goods, in addition to demonstrating an injury, may have to demonstrate that the applicant for border measures acted in a wrongful manner. It is unclear whether the use of 'wrongful' is intended to require a showing of an applicant's bad faith permitting the suspension of release to occur.

One might imagine a scenario wherein the IPR owner/applicant for border measures receives notice of a suspension of release and asks for the additional 10-day suspension period in order to arrange for its representatives to travel to a port in order to inspect

[91] WTO, above n 2.

[92] There may also be other affected parties (for example, carriers, distributors, retailers) who may potentially claim damages as well, but under general principles and rules of national law.

[93] Trainer and Allums, above n 76, 735.

suspect goods. If the additional time is granted and the applicant, upon having the goods inspected, agrees to have the goods released from Customs, does the importer, consignee, or owner have sufficient ground to seek compensation? Assuming that the suspension of release does cause the goods to arrive late and delivery dates are missed, has the applicant caused a wrongful detention? In this situation, the applicant may not be acting in bad faith to delay the goods, but the suspension or release may be viewed as wrongful from the perspective that the goods were delayed and deemed not infringing b6y the applicant. Thus, the lack of clarity in the use of 'wrongful' can subject IPR owners to liability. The NAFTA test, generally, follows the text of Article 56.

The WCO Model Legislation addresses the issue in Article 5. It states:

> Customs may require an applicant to provide a security or equivalent assurance or an undertaking, sufficient to protect the importer, consignee, consignor, exporter or owner of the goods and the competent authorities. However, such security or equivalent assurance shall not be fixed at an amount which would unreasonably deter recourse to these procedures.[94]

The provision indicates that the purpose of obtaining security, assurance, or an undertaking from the applicant is to protect the importer, consignee, consignor, exporter, or owner of the goods, In this case, it is to protect those parties in the event that the suspension causes injury and, thus, provides the importer, consignee, consignor, or owner with the ability sue.

The WCO Model Legislation recommends that national legislation include a provision that specifically addressed wrongful detention of goods or circumvention devices.[95]Essentially, the provision would permit either administrative or judicial procedures for the injured party to seek monetary compensation for the wrongful detention.

A fundamental issue is whether an importer, exporter, consignee, consignor, or owner of the goods would have legal grounds to file a civil suit in the absence of an applicant's security, assurance, or written declaration to protect these parties. If the party (or parties)

[94] WCO, above n 84, Art. 5.

[95] Ibid Art. 16(1).

has evidence of injury resulting from the suspension of release, there should be sufficient flexibility in a civil and/or procedural code that would permit an injured party to seek compensation for any financial losses and/or injury incurred.

3.3.7 Right to Inspect and Information

A particularly useful innovation effected by the border control provisions of the TRIPS Agreement is the authority conferred by Article 57 empowering Members to provide the competent authorities, where a positive determination has been made on the merits of a case, with the authority to inform the right holder 'of the names and addresses of the consignor, the importer and the consignee and of the quantity of the goods in question'.[96] This will obviously assist a right holder in its further investigation of other persons involved in the counterfeiting or piracy of goods. In its entirety, Article 57 states:

> Without prejudice to the protection of confidential information, Members shall provide the competent authorities the authority to give the right holder sufficient opportunity to have any goods detained by the customs authorities inspected in order to substantiate the right holder's claims. The competent authorities shall also have authority to give the importer an equivalent opportunity to have any such goods inspected. Where a positive determination has been made on the merits of a case, members may provide the competent authorities the authority to inform the right holder of the names and addresses of the consignor, the importer and the consignee and of the quantity of the goods in question.[97]

The Article recognises immediately that there may be business confidential information related to the party and its goods that are subject of the suspension of release of goods due to suspected infringement. The recognition of the need to be sensitive to and protect business confidential information has continued to be explicitly stated in recent developments in the European Council (EC) Regulations.[98] On a similar note, the WCO

[96] WTO, above n 2, Art 57.

[97] TRIPS; see also NAFTA Article 1718(10). The NAFTA text is practically identical to the TRIPS text.

[98] Council Regulation (EC) No. 1383/2003, Article 9(3). The provision begins by stating that 'With a view to establishing whether an intellectual property right has been infringed under the national law, and in accordance with national provisions on the protection of personal data, commercial and industrial secrecy and professional and administrative confidentiality....'

Model Legislation's Article 8(1) begins by stating, '[w]ithout prejudice to the protection of confidential information...'[99] which is identical to the beginning of TRIPS Article 57.

The right holder is inevitably in the best position to assist in the identification of infringing goods, Article 57 permits Members to provide the competent authorities with the authority to provide the right holder with 'sufficient opportunity to have any goods detained by the customs authorities inspected in order to substantiate the right holder's claims'. Similarly, the competent authorities are also to be provided with the authority give the importer an equivalent opportunity to have the goods inspected.

Both the right of inspection and the right of information (if conferred) are subject to the protection of 'confidential information'.[100] Article 57 does not clarify to whose benefit this protection should be established, thereby suggesting that any party may invoke it and that the competent authorities must not confer such rights when a violation of such information may occur.

The opportunity to inspect samples of the detained goods suspected of infringement, as stated in the Article, is aimed at giving the IPR owner a chance to substantiate the claim of infringement because of the need to initiate proceedings on the merits of infringement. The IPR owner's ability to inspect goods and substantiate a claim of infringement is tied to some extent, to the IPR owner's ability to get to the port or place where the goods are located within the time frame that has been provided by TRIPS and implemented by national law.

Furthermore, it is noteworthy that Article 57 does state that the competent authority must have the power to give the importer an opportunity to inspect samples. The importer, upon inspection of a sample, has decisions to make, either to challenge the IPR owner and the relevant competent authority regarding the allegation of infringement or, under the procedures of the Customs administration or other relevant authority, abandon the goods by agreeing that the goods infringe and permit the relevant authorities to seize and forfeit

[99] WCO, above n 84, Article 8(1).

[100] Art. 42 of TRIPS details out the 'Fair and Equitable Procedures' for protection of confidential information related to IPRs.

the suspect merchandise. Article 57 does not, however, explicitly address the issue of providing the IPR owner with samples from the shipment of goods that has been detained. While the Article is clear about the possibility of inspection of goods, this may be read to mean that the IPR owner, importer, or their respective representatives can view samples while the goods remain in the custody of the relevant authorities. The fact that Article 57 is silent on providing samples to an IPR owner provides flexibility in implementing Article 57. Nothing prohibits a WTO Member State from permitting samples to be provided to right holders for inspection at the right holder's facility.[101]

Border measures and fighting counterfeiting in South Africa are based on the 'Counterfeit Goods Act of 1997'. The Act provides that the Commissioner for Customs and Excise upon having granted an application to that end by the owner of an intellectual property right, will have the power to seize and detain counterfeit goods or suspected counterfeit goods imported into or through or exported from or through the Republic of South Africa during a particular period and calculated to infringe that intellectual property right.[102] If a right owner has grounds to suspect that counterfeit goods are being imported into or exported from the Republic of South Africa it may lay a complaint with customs, accompanied by sufficient information and particulars from which it is possible for customs to identify the alleged counterfeit goods, a power of attorney (if the complaint is done by a representative) and prima facie evidence the goods are protected (such as trademark registration). A customs officer can only act if a warrant has been issued by a judge of the High Court or a magistrate who has jurisdiction in the area were an act of dealing in counterfeit goods (is likely to) has taking place.

If during regular inspections a customs officer comes upon counterfeit goods he/she has to inform the right owner and furnish an original of the inventory list of the shipment seized within three days. The right owner must file a criminal complaint within three days or initiate civil proceedings within ten working days after the notification. If no such action is initiated Customs will have to release the goods.

[101] With regards to samples, Customs and Border Protection (CBP) in the USA has specific procedures whereby trademark and copyright owners may obtain samples from CBP and examine the sample at their desired location. The right holders are not limited to inspecting the goods at a port of entry, but may have samples sent to them upon providing a bond.

[102] WIPO, <http://www.wipo.int/wipolex/en/details.jsp?id=6121> (accessed on 17 January 2013).

3.3.8 Ex Officio Action

Article 58 of the TRIPS Agreement states:

> Where Members require competent authorities to act upon their own initiative and to suspend the release of goods in respect of which they have acquired prima facie evidence that an intellectual property right is being infringed:
> (a) the competent authorities may at any time seek from the right holder any information that may assist them to exercise these powers;
> (b) the importer and the right holder shall be promptly notified of the suspension. Where the importer lodged an appeal against the suspension with the competent authorities, the suspension shall be subject to the conditions, mutatis mutandis, set out at Article 55.
> (c) Members shall only exempt both public authorities and officials from liability to appropriate remedial measures where actions are taken or intended in good faith.[103]

The provisions in Articles 51-60 do not entail specific inspection obligations for customs authorities with regard to IPR-protected goods, nor to act *ex-officio*. If they do so, they must comply with the conditions set forth in Article 58. This Article envisages that Members may permit the competent authorities to act upon their own initiative in suspending the release of goods where they have *prima facie* evidence that an intellectual property right is being infringed. In these circumstances the Article permits the competent authorities to 'seek from the right holder any information that may assist them to exercise these powers'.[104]

Article 58(b) requires that both the importer and right holder shall be promptly notified of the suspension and that where the importer has lodged an appeal against the suspension with the competent authorities, the suspension shall be subject to the conditions, mutatis mutandis, set out in Article 55. An exemption is provided by Article 58(c) to both public authorities and officials 'from liability to appropriate remedial measures where actions are taken or intended in good faith'.

[103] WTO, above n 2, Art. 58.

[104] Ibid.

WTO members are not required to give its competent authorities ex officio power, such as, authority to initiate border enforcement actions on their own initiative. The discretionary nature of Article 58 is clear from the way in which begins, '[w]here members require competent authorities to act upon their own initiative....'[105] The WTO Panel Report in the US case against China confirms that the Article 58 reference to *ex officio* is not an obligation, but an option.[106] The initial wording recognises that some governments have or may provide its competent authorities with the legal authority to act on their own. If it was intended that members provide its competent authorities with the authority to act ex office, Article 58 could have simply stated that 'members are required to provide the competent authorities with the authority to act ex office....' or some other similar language such as 'competent authorities shall have the authority to...'.[107]

Article 4(1) of the EC Regulation does not specifically say *ex officio* authority, it does state that the customs authorities can stop shipments suspected of containing infringing goods in the absence of an IPR holder application. It does, however, contain clear reference to the right holder's need to file an application within a specified period after the goods have been stopped. US Customs has created a hybrid procedure. Any person may file electronically an 'eAllegation' to report illegal import and export activity and violations of US trade laws,[108] which would include information about IPR violations. Customs has a form that can be completed and submitted on its Web site. One might resort to this mechanism when the IRP at issue has not been known to be the target of infringement in the part or rarely infringed, but information is suddenly available about an imminent shipment.

While some Members provide for *ex officio* action by customs authorities to suspend suspicious consignments in their national legislation, in many cases the most important trigger for customs authorities to suspend goods at the border is an application for border

[105] Ibid.

[106] Panel Report, above n 17, para 7.247.

[107] Despite the discretionary nature of the text, governments are empowering customs administration. See China General Administration of Customs, Decree No. 114, Chapter. IV, Article 20, Ex Officio Action (1 July 2004).

[108] CBP, <http://apps.cbp.gov/eallegations> (accessed 19 September 2013).

measures filed by a right holder, as provided under Article 51 of the TRIPS Agreement. Without such an application, customs authorities have limited authority and capacity to act on their own, and, in the case of *ex officio* action, it may even be difficult to determine the right holder concerned. If right holders are willing to invest the necessary diligence to file a detailed application for border measures, and if customs authorities and right holders work closely together, much can be achieved.

Hong Kong has enacted two pieces of legislation in order to implement the Border Control provisions of the TRIPS Agreement, which permit Customs officers to stop and search any vessel, aircraft or vehicle, and seize, remove or detain any suspected infringing copy of a copyright work or counterfeit goods, other than goods in transit.[109] A right holder (copyright or trademark) may apply to Hong Kong Customs to record its trademark or copyright. Accompanying the application form are: evidence of ownership, information of the right holder's products (and samples whenever possible), and letter of authorisation provided to their authorised representatives. Hong Kong practice also provides for an updating of this intellectual property information and for changes of right holders or its address, addition or deletion of licensees, substitution of the IP owner's agent, or changes in use of the IP on products such as packaging designs. Upon recordal, Hong Kong Customs can take *ex-officio* action. Additionally, Hong Kong Customs possesses extended powers to enter premises and inspect and seize goods and documents. This includes investigations into the full distribution chain such as import, export, manufacturing, inland distribution, storage and/or retail outlets.

In Switzerland, right holder applications generally are not filed for a specific consignment suspected to contain counterfeited or pirated products. This is because right holders rarely have concrete knowledge about an imminent consignment of possibly counterfeited goods. To assist right holders, the Swiss Federal Customs Administration (FCA) (*Oberzolldirektion* = Directorate General of Customs) has an information sheet on its website which guides right holders through the application procedure. After an application has been made, the FCA examines whether all the required information has been supplied and will contact the right holder to request further specifications, if needed. Swiss customs officials have found that an easy-to-use checklist of features which distinguish a genuine

[109] Copyright Ordinance (Chapter 528); Trade Descriptions Ordinance (Chapter 362).

from a fake product is particularly useful. When they control suspicious consignments, officials must swiftly judge the goods in question. Pictures provided by the right holder illustrating typical characteristics of fake goods in comparison to original ones can facilitate this task. For example, in the case of medicines, such illustration may detail the packaging or other specific characteristics (form, colour, signet on pill, etc.) of the pharmaceutical and/or its counterfeit.

The Customs Law of the People's Republic of China[110] gives Customs the power to check inward and outward means of transport and examine inward and outward goods and articles. In allowing Customs to check outward goods, this measure exceeds the requirements of the TRIPS Agreement. Customs can act ex-officio and they can be notified by individuals. Customs is entitled to examine, re-examine or take samples from the goods. The consignor of the export goods shall be present and be responsible for moving the goods and opening and restoring the package. The customs shall be entitled to examine or re-examine the goods or take samples without the presence of the consignee or the consignor whenever it considers this necessary.

To facilitate its border control of infringing goods, the Customs Law of the PRC provides for the recording by rights holders with Customs:

- Notarised and legalised power of attorney appointing an agent or representative;
- Notarised and Legalised certificate of incorporation in the owner's domicile (which must be translated in Chinese);
- Certification of the rights concerned;
- Samples of goods; and
- Other details such as licensees and suspected infringers.

Where infringing goods are sought to be Customs is permitted to confiscate the goods, impose a fine on the party concerned and, investigate and prosecute the criminal responsibility according to law where the export constitutes a crime.

[110] Adopted on 22 January 1987 and 8 July 2000.

3.3.9 Remedies

Without prejudice to the infringement actions which may be brought by a right holder, and subject to the right of a defendant to seek review by a judicial authority, Article 59 provides that the competent authorities shall have the authority to 'order the destruction or disposal of infringing goods' in accordance with the principles set out in Article 46. TRIPS Article 46 states:

> In order to create an effective deterrent to infringement, the judicial authorities shall have the authority to order that goods that they have found to be infringing be, without compensation of any sort, disposed of outside the channels or commerce in such a manner as to avoid any harm caused to the right holder, or, unless this would be contrary to existing constitutional requirements, destroyed.[111]

In deciding upon destruction, the competent authorities will take into account the seriousness of the infringement and the interest of third parties. In regard to counterfeit goods, Article 46 provides that 'the simple removal of a trademark, unlawfully affixed shall not be sufficient, other than in exceptional cases to permit the release of the goods into the channels of commerce'. Similarly, Article 59 provides, in relation to counterfeit goods, that the authorities 'shall not allow the re-exportation of the infringing goods in an unaltered state or subject them to a different customs procedure, other than in exceptional circumstances'.

Initially, it is important to note that Article 46's remedies provision is a civil remedy for infringement.[112] Therefore, the enforcement actions taken at the border by the competent authorities to stop the importation of infringing goods are deemed to be a civil or administrative enforcement action.[113] For example, Jordan has instituted a border control

[111] WTO, above n 2, Article 46.

[112] TRIPS, Part III Enforcement of Intellectual Property Rights, Section 2 Civil and Administrative Procedures and Remedies, Article 56 Other Remedies.

[113] The TRIPS view reflects the minimum enforcement standards for infringement actions. Those involved in importing counterfeit and pirated goods may be subject to criminal investigations and penalties. Thus, while civil and administration actions may be appropriate in most cases, the possibility of criminal investigations and criminal remedies may be justified and appropriate under the right set of circumstances and the application of criminal penalties should not be foreclosed.

system which provides for the joint enforcement of registered marks by Customs and the industrial property office.[114]

The TRIPS Articles themselves do not elaborate as to how infringing goods should be disposed of if they are not destroyed. However, the challenges raised by the US against China's policies regarding the disposition of infringing goods did provide the WTO Panel an opportunity to analyse China's practices and reach conclusions that may help in determining the intent of the provisions.[115] The Panel's examination of China's disposition scheme, based on China's rules and regulation, led the Panel to conclude that donation of infringing goods to a social welfare body, if conducted in accordance with Article 46, would be acceptable. The Panel explained that the manner of disposal must be designed in such a way as to prevent any harm occurring to the right holder.[116]

3.3.10 De Minimis Exports

Article 60 permits Members to exclude 'small quantities of goods of a non-commercial nature contained in travellers' personal luggage or sent in small consignments' from the border control provisions of the TRIPS Agreement. The *de minimis* clauses can be found in other components of the WTO system.[117] Article 60 is also a *may* provision which reflects not only the difficulty that Customs authorities face in controlling imports in slam quantities, but also the fact that title holders will not normally be interested in bearing the costs of enforcement procedures in such cases. The 'above provisions' refer to the other provision in Section 4.[118] Given the very nature of the Article, it is clear that there is a wide window of different interpretation by concerned parties in case of an infringement.

[114] WIPO, 'Existing Needs for Training and for Development of Enforcement Strategies' (10 September 2002) <www.wipo.int/edocs/mdocs/.../en/wipo.../wipo_cme_2_rev.doc> (accessed 12 October 2013).

[115] Panel Report, above n 17, para 7.247.

[116] Ibid para 7.281.

[117] See for example, Art. 5.8 of the Antidumping Agreement, and Art. 11.9 of the Agreement on Subsidies and Countervailing Measures.

[118] WTO, above n 2, Art. 60.

Generally, in view of the massive quantities of counterfeit and pirate products made and transported across borders, the question arises whether the *de minimis* rule facilitates the illicit trade. The absence of a definition for 'non-commercial' quantities allows countries to adopt different standards which, in turn, may permit organisations involved in counterfeit and pirate distribution to circumvent the intent of this provision. Because of the growing trade in counterfeit and pirated products, there are some governments, notably France, that have decided to take stringent measures by targeting tourists who may have only one counterfeit item.[119] Switzerland is in line with France's approach as a new regulation went into effect on 1 July 2008. The new regulations give Customs the authority to seize counterfeited trademark and design goods that are for private use.[120]

In the UAE, the Customs imposes a tight control on the import/export of cargo. All airlines, shipping companies, shipping agents and importers have to register with the Customs. Each one of them would be allotted with an Importer Code or Agent Code. Traders are not allowed to import or export goods without registration.[121] Through the installation of computer terminals in the customs offices in the airport, seaports and free trade zones, upon the receipt of delivery orders from the shipping agents customs officers can add a 'Hold' or 'Warning' remark, where appropriate, to alert the officers of the Operation Section. The latter will then take appropriate actions in accordance with the remarks on screen, such as direct the importer to produce their goods for customs physical inspection. When suspected infringing goods (whether in printed [such as books] or non-printed [such as CDs, VCDs, DVDs] formats) are found, samples are sent to the Ministry of Information and Culture for examination and follow-up investigation. In the case of suspected counterfeit goods, Officers consult the Chamber of Commerce to see whether the trademark owner was registered. If the trademark owner was located, he would be invited to verify the genuineness of the goods. The importer in question would be put on a blacklist and classified as high risk. Inspectors of the Inspection Section will monitor those

[119] Colin Randall, 'French clamp down on fakes bought by tourists', *Daily Telegraph* (UK), August 22 2005.

[120] Swiss Customs Administration, <http://www.ezv.admin.ch/index.html?lang=en> (accessed 10 March 2012).

[121] Government of Dubai, <http://www.dubaicustoms.gov.ae/en/eServices/ServicesForTravellers/CustomsDuties/Pages/PermittedItems.aspx> (accessed 25 April 2013).

consignments imported by those blacklisted importers and select their imported goods for examination until no further irregularity was found after several months.

Although it might be viewed as draconian, one way to close a loophole when there is no uniform standard is to eliminate exemption altogether. The *de minimis* exemption is one that, perhaps, should be eliminated and subject all trade in counterfeit and pirated products to the enforcement measures.

3.4 Conclusion

A survey conducted by WIPO in 2002 indicated that the principal barriers to eliminating counterfeiting and piracy did not subsist in the substantive law, but rather in the remedies and penalties available (or not available) to stop and deter counterfeiting and piracy.[122] The ineffectiveness of enforcement systems was attributed, in many cases, to a lack of human resources, funding and practical experience in IP enforcement of relevant officials, including the judiciary; insufficient knowledge on the side of right holders and the general public, concerning their rights and remedies; and systemic problems resulting from insufficient national and international coordination, including a lack of transparency.

The international community's agreement and adoption of procedures for the protection of intellectual property at the border is a significant departure from traditional Customs responsibilities. While Customs administration have been viewed as a revenue collection agency in many countries, the WTO-TRIPS border measures is viewed as a radical departure from this historical role.

As the preceding discussion elaborates, the challenge to protect IPR at national borders requires significant interaction among the different border agencies and other relevant stakeholders. Although Customs officials may be accustomed to constant contact with freight forwarders, transport companies, and customs brokers, the IPR owner or its representative becomes an indispensable contact in border enforcement of intellectual property. The addition of the IPR owner adds another player into the overall Customs enforcement system. In addition to training and education just to become acquainted with

[122] WIPO, above n 114 (accessed 20 June 2013).

intellectual property, there is constant need to interact with IPR owners in order to determine if there is a strong likelihood of a violation. This, too, change the way in which most Customs officers are accustomed to working and determining the existence of a Customs violation. The fact that the private sector has a major role in the process of determining the existence of a Customs violation or a violation of other national laws diverts from the routine procedures that most Customs officers may be used to follow in their daily work.

Because of the departure from more traditional Customs responsibilities, both the IPR owners and government policymakers must decide to take active roles in educating and training Customs and other responsible government officials regarding the new enforcement responsibilities at the border. Moreover, the training and education must emphasise the fact that governments have decided that violations of IPR are no longer the strict responsibility of the private sector. Government have agreed that they have an important responsibility and an active role in the protection of intellectual property rights and, in some cases, have determined that violations of these rights are crimes against the state.

The enforcement provisions of the TRIPS address civil, provisional, border, and criminal enforcement of the various types of IP cover by TRIPS.[123] Although the focus here is border enforcement, it is worth nothing that all intellectual property rights are not protected equally under TRIPS. Member states must establish a system to protect copyright and trademarks at the border, but may choose whether to extend such protection to the other forms of IP. Similarly, WTO Member States must provide criminal procedures and penalties for trademark counterfeiting and copyright piracy, but may choose to provide such penalties for the other forms of intellectual property under the agreement.[124] The civil and provisional enforcement measure must be applied to all forms of intellectual property covered by the agreement.

[123] TRIPS, Part II, Standards Concerning the Availability, Scope and Use of Intellectual Property Rights Identifies the various rights covered by the agreement and the substantive requirements for each of the rights (copyright, trademark, geographical indications, patents, integrated circuit layout designs, undisclosed information, and anti-competitive practices). Part III. Enforcement of Intellectual Property Rights contains the enforcement provisions, civil, provisional, border and criminal.

[124] WTO, above n 2, Article 6.

Although the border measures provisions are often viewed as administrative enforcement, the volume of trade in counterfeit and pirated goods has prodded some governments to allow enforcement authorities, both policy and Customs authorities, to pursue criminal charges. For example, a husband and wife who operated a music piracy racket in the UK were subject of a police operation and raided and subsequently found guilty and jailed for importing music compilations and used a business as a front for sale and distribution.[125]

[125] 'Husband and Wife Music Pirates Jailed for £5m Fraud', *Evening Standard* (UK), 3 April 2008 <http://www.standard.co.uk/news/husband-and-wife-music-pirates-jailed-for-5m-fraud-6613088.html> (accessed on 15 October 2013).

CHAPTER 4

ROLE OF CUSTOMS AS A BORDER SECURITY AGENCY

4.1 Introduction

For centuries, the major responsibility of Customs has been considered to be collection of import revenue at the borders. However, in view of the progressive reduction in the import duties it is being recognised that Customs, both independently and in collaboration with other border agencies, plays a critical role in the implementation of a wide range of trade, economic and social policies, and contributes to the achievement of national development objectives. As the main government agency responsible to safeguard the external frontier[1], Customs is required to guard against both importation and exportation of dangerous and counterfeit products which pose serious threat not only to the economy, but also to the society in general. Such products include pharmaceuticals, compact discs (CDs) and digital versatile discs (DVDs), toys, clothes, food products, etc. It is in this context that customs role in enforcing Intellectual Property Rights (IPR) law through border measures is growing in prominence.

This Chapter deals with two interrelated aspects. The first part focuses on analysing the Revised Kyoto Convention (RKC) to understand how this has played a significant role in overall improvement of the role of Customs. As its inherent characteristic, the RKC generates implication for all developed, developing and least developed countries. Building upon the findings presented in the first part of this chapter, the second part presents a detailed case study on the role of Australian Customs in protecting IPR at the national borders to exemplify the role of RKC in border management in the context of a developed country. Where relevant, cross reference with other developed and developing countries is presented to under a wider dimension of the issue. The reason for focusing on Australian Customs can be explained by its success in designing effective measures to combat border infringement of intellectual property right (IPR). To this end, the research mainly focuses upon the nature, scope and effectiveness of the Australian Customs in terms of application of laws and regulations towards protecting infringement of IPR laws. It also

[1] WCO, *Global trading environment benefits through WCO contribution to Intellectual Property Rights* <http://www.wcoomd.org/ie/En/Past_Events/trade99/ipre.html> (accessed on 10 December 2012).

- examines how internal coordination, and cooperation with other border agencies help Australian Customs play effective role in intercepting and preventing infringement of IPR Laws, particularly in relation to trade mark and copy right laws;
- analyses the degree of cooperation between customs and the private sector as a critical element in protecting IPR;
- analyses the Australian Customs Act 1901, the Trade Marks Act 1995, the Copyright Act 1968 and other relevant domestic legislations with a view to determine the degree of compliance with the international norms and practices including those set out by the World Trade Organization (WTO) and the World Customs Organization (WCO);
- examines the Australian regime against the work done by the WCO in relation to IPR enforcement; and
- conducts a comparison of the Australian Customs with that of at Bangladesh and the USA with an attempt to highlight its strengths and weaknesses in combating IPR infringements.

4.2 Customs in the 21st Century: Gatekeeper or Trade Facilitator?

An introduction to the evolving nature of Customs role in border protection has already been articulated in the previous chapters. Having said that, one can hardly overlook the importance of the RKC in reforming the nature and scope of Customs role in the context of international trade. In addition to its traditional role of revenue collection, Customs now-a-days has to perform the more complex roles of trade facilitation and border protection. This requires Customs administrations to undertake rigorous reform and modernisation initiatives. The RKC is the foundation of the development and modernisation of global customs procedures. It is the combination of magnitude of its scope and pragmatism in its principles that makes RKC the best practice guide for Customs reform and modernisation.

4.2.1 An Overview of the Revised Kyoto Convention*

The Customs Cooperation Council (CCC) which is the forerunner of the WCO has, since its inception in 1952, been working to develop modern principles that would bolster effective customs administrations. In 1973, the CCC adopted the *International Convention on the Simplification and Harmonisation of Customs Procedures* or the K*yoto Convention* (KC) which later came into force in 1974. However, globalisation, rapid transformation of international trade patterns and advances in information technology since then have compelled the WCO and its members to review and update the KC. As a result, a revised version of the KC was adopted in June 1999. Popularly known as the *Revised Kyoto Convention* (RKC), this is one of the major international instruments developed by the WCO.[2] It is recognised as an international standard, and used as a benchmark, for the global Customs community. The RKC entered into force in 2006.[3] The Convention has a General Annex, Specific Annexes and Chapters, and Guidelines.

General Annex

It deals with the core principles for all procedures and practices, to ensure that these are uniformly applied by Customs Administrations. The General Annex reflects the main Customs functions in its Definitions, Standards and Transitional Standards, which all have the same legal value. The General Annex is obligatory for accession to the Convention. The General Annex is divided into 10 chapters. The chapters respectively deals with General Provisions; Definitions; Clearance of Goods; Duties and Taxes (Assessment, Collection and Payment; Deferred Payment; Repayment); Security; Customs Control and Risk Management; Use of Information Technology; Relationship between Customs and 3rd Parties; Customs Information, Decisions and Rulings; and Appeals in Customs Matters.

Specific Annexes and Chapters

The specific Annexes cover individual Customs procedures and practices. Contracting parties may accept all or a number of Specific Annexes and Chapters upon accession to the

* Sections 4.2.1 and 4.2.2 have been mostly reprinted from *Global Trade and Customs Journal*, volume no. 3, issue no. 11/12, 2008, pages 383-389, with permission from Kluwer Law International.

[2] WCO, *The Revised Kyoto Convention* WCO <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_conv.aspx> (accessed on 4 September 2013).

[3] Ibid.

Convention. Specific Annexes include Standards and Recommended Practices. WCO recommends that Contracting Parties at least accept the Specific Annexes on Home Use, Export and those regarding formalities prior to lodgement of Goods Declaration, as well as those for Warehouses, Transit and Processing. These Annexes (from A-K) deals respectively on the following areas: Arrival of goods in a customs territory; Importation; Exportation; Customs warehouses and free zones; Transit; Processing; Temporary admission; Offences; Special procedures; and Origin.

Guidelines

These are the explanations of the provisions of the Convention and provide examples of Best Practices. Guidelines are provided for all chapters in the General Annex, except the Definitions chapter, and for all the Specific Annexes and their chapters.

Standards and Transitional Standards

Standards must be implemented within 36 months of ratification, while transitional standards have a 60-month implementation period. No reservations are allowed on Standards in General Annex or Standards in Specific Annexes that Contracting Parties have accepted.

The above diagnosis of the RKC clearly epitomises Customs as a unique organisation which plays a vital role in the growth of international trade and the development of the global marketplace. Chapter 3 of the RKC authorises customs to coordinate operations at common border crossings, and calls upon all the government agencies to coordinate inspection. Hence, not only has customs been urged to maintain cooperation with border agencies, the RKC recognises customs both as national and international phenomenon in terms of its role in international trade. The RKC clearly indicates to the fact that the role of Customs has now expanded to include national security, in particular the security and facilitation of legitimate trade from the threats posed by terrorism, trans-national organised crime, commercial fraud, counterfeiting and piracy which is as vital for the growth of domestic industries as is for ensuring secured flow of trade internationally. Given this role, the efficiency and effectiveness of Customs procedures can significantly influence and

advance economic competitiveness and social development by promoting international trade and investment in a safer trading environment.[4]

4.2.2 Revised Kyoto Convention: The Best Practice Guide for Customs

Article 2 of the RKC states:

> Each Contracting Party undertakes to promote the simplification and harmonisation of Customs procedures and, to that end, to conform, in accordance with the provisions of this Convention, to the Standards, Transitional Standards and Recommended Practices in the Annexes to this Convention. However, nothing shall prevent a Contracting Party from granting facilities greater than those provided for therein, and each Contracting Party is recommended to grant such greater facilities as extensively as possible.[5]

However, the role of Customs is not limited to trade facilitation – other functions such as revenue collection and protection of society are also very important. Many least-developed and developing countries still heavily depend on Customs duties to ensure their national revenue. Customs also assumes the role of protecting society against the inflow of hazardous goods and illicit drugs. The terrorist attacks of September 11 have also highlighted the role of Customs in protecting national security. The principles of the revised Kyoto Convention encompass all these concerns. For example, the principles of risk management, which are imbued within the RKC, will ensure a balance between the different functions of Customs, namely providing facilitation for legitimate trade while exercising appropriate controls for the protection of society and revenue collection.[6]

The following discussion will highlight how the RKC has addressed the three basic roles of customs administration, namely trade facilitation, revenue collection, border protection.

---

[4] Syed Saifuddin Hossain, 'Simplification of Trade Processes and Procedures in Bangladesh: Results from Business Process Analysis (BPA) of Export and Import Procedures for Selected Commodities' (Paper presented at the Dialogue on Trade Promotion Through Trade Facilitation, Dhaka, 21 October 2010) 64.

[5] WCO, above n 2 (accessed on 12 October 2012).

[6] WCO, 'Implementing the Revised Kyoto Convention' (2008) <www.wcoomd.org/.../PDFandDocuments/Procedures%20and%20Facilitation/implement_kyoto_uk.pdf> (accessed on 30 August 2009).

Trade Facilitation

On trade facilitation initiative, the WCO sees its role as being complementary to the WTO in developing instruments to support the WTO rules. Another important and complementary role is also delivering training and technical assistance to implement those rules. All the legal provisions and the principles in the RKC are compatible with, and complementary to, the three specific Articles (V, VIII and X) of the General Agreement on Tariff and Trade (GATT) referred to in the context of trade facilitation in the Doha Ministerial Declaration.[7] There is a clear recognition that Customs procedures and their implementation exert a great impact on world trade and the international movement of goods across borders. While the GATT Articles set out the high principles for formalities and procedures, the RKC, through its legal provisions and implementation guidelines, provides the basis and practical guidance and information for the implementation of these high principles. With respect to the WTO trade facilitation negotiations, it may be mentioned that trade negotiators have already recognised that the RKC is an essential source of reference.[8]

The principles in the RKC not only promote trade facilitation, but also ensure that the statutory functions of Customs are not compromised. Cross-border movement of goods is the key element in any international trade transaction and a Customs presence is an essential and statutory feature for the movement of such goods. The manner in which Customs provide for swift and efficient clearance of these goods reflects the quality of service provided by the government to the public.

In this context, the RKC provides a comprehensive set of uniform principles for simple, effective and predictable Customs procedures with effective Customs control. These are:

- Implementation of programmes aimed at continuously modernising Customs procedures and practices and thus enhancing efficiency and effectiveness;
- Application of Customs procedures and practices in a predictable, consistent and transparent manner;

[7] WTO, 'Doha WTO Ministerial 2001: Ministerial Declaration' (2001) <http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm> (accessed on 16 April 2012).

[8] WCO, *Revised Kyoto Convention: Let's Talk* <www.wcoomd.org> (accessed on 2 August 2010).

- Provision to interested parties of all the necessary information regarding Customs laws, regulations, administrative guidelines, procedures and practices;
- Adoption of modern techniques such as risk management and audit-based controls, and the maximum practicable use of information technology;
- Co-operation wherever appropriate with other national authorities, other Customs administrations and the trading communities;
- Implementation of relevant international standards; and
- Provision to affected parties of easily accessible processes of administrative and judicial review.[9]

It thus responds to the key needs of both modern day Customs administrations and the demands of international trade by providing a balance between the Customs functions of control and revenue collection and that of trade facilitation. There is no doubt that this assurance of standard and simple procedures harmonised across administrations will facilitate and boost international investment and trade.

The principles for efficient and simple clearance procedures in the RKC apply equally to all goods and all means of transport (carriers) that convey the goods into or out of a Customs territory. The formalities for all carriers on entering or leaving a Customs territory are also uniform.

Taking note of the changes in today's business practices and the role of electronic commerce, the RKC requires Customs to develop information technology in consultation with all relevant parties and apply this to support Customs operations, wherever it is cost-effective and efficient for both Customs and the trade.[10] It also provides administrations with detailed guidelines on how to apply and implement information technology for the clearance of goods, carriers and persons, thus assisting Customs to deal with the demands generated by electronic commerce. The Standards and comprehensive implementation Guidelines for the application of Information and Communication Technology (ICT) in Customs are mentioned especially in Chapter 7 and Specific Annexes of the RKC. It is envisaged that the implementation of such facilitation measures will lead to the following:

[9] Ibid.

[10] Ibid.

- Increased collection of duties and taxes due to the uniform application of laws and regulations, the automated calculation of duties and taxes as well as built-in security;
- More effective revenue collection and administration controls;
- Improved and timely foreign trade statistics as trade data are an automatic by-product of the computerised system;
- Less corruption due to transparency and automated procedures;
- Faster release of cargoes passing through Customs clearance;
- Simpler procedures and documents, based on international standards;
- Reduced physical examination of goods;
- Separation of payment of duties and taxes from physical clearance of goods (under deferred payment schemes, such as payment by week or month);
- Faster electronic lodgement of Customs declarations, using Direct Trader Input (DTI) or other on-line connections;
- Reduced Customs auditing of documents and records after release of the goods;
- Readiness for introduction of e-commerce, e-governance and e-training; and
- Enhanced capacity building of staff and management in both Customs and the private sector (such as through training courses on simplified procedures and documents based on international norms, UN recommendations, and WCO standards).

Now-a-days, the concept of 'Single Window' is commonly used as an answer to the abovementioned expectations. However, the concept itself is nothing new. The issue has been addressed in the Revised Kyoto Convention, which calls for co-ordinated intervention by border agencies in order to allow an expeditious clearance of goods.[11]

[11] WTO, above n 7.

Box 4.1

Single Window: A Few Success Stories

In Costa Rica the Single Window for Foreign Trade (VUCE) is a very comprehensive mechanism which has centralised all the steps involved in goods export procedures, as well as in the issuance of prior import licences by the Ministry of Health, Ministry of Agriculture and Livestock, or Council for Textile Quotas, including permits and prior authorisation for goods subject to sanitary and phytosanitary requirements. By 2001 a total of 45% of all goods export procedures were carried out using the system.

The Port Authority of Thailand operates a One Stop Service Centre, completely handling the clearance of goods in the Bangkok Port, including the payment of related tariffs and port charges.

The Finnish PortNet is a virtual port community covering all information that the Port Authorities, Customs and Maritime Administration require from the shipping lines and agents and related to customs issues, dangerous cargo, invoicing and statistical needs.

Source: OECD, 2005[12]

The whole concept of trade facilitation is probably well summed up in following the statement by WCO: 'Customs systems and processes must not be allowed to serve or be perceived as a barrier to international trade and growth.'[13]

Border Protection

The challenge to the Customs community today is to proactively manage the apparently contradictory role of ensuring improvement in the speed and service delivery of Customs formalities while maintaining systematic and effective intervention controls in a 'hostile' environment where organised crime and terrorist activity is an ever-increasing threat. This is where the concept of risk management comes into play.

[12] OECD, 'The role of automation in trade facilitation' (OECD, 2005) 89.

[13] WCO, above n 2 (accessed on 12 June 2013).

Responding to global concerns about the security of goods moving along the international trade supply chain, the WCO undertook a number of initiatives in this area, culminating in the SAFE Framework of Standards to Secure and Facilitate Global Trade.[14] Based primarily on the RKC, the Framework underscores that both the security and facilitation of the trade supply chain is possible by applying modern Customs control methods and processes such as risk assessment, the use of advance cargo information, authorised traders, co-operation between Customs administrations and between Customs and business. Hence, the SAFE Framework is an extension of what has been embedded in the RKC.

Chapter 6 (customs control and risk management) of the RKC sets out clear guidelines for ensuring a proper supply chain security:

- All goods entering or leaving Customs territory are under Customs control;
- In application of Customs control, Customs Administrations to use risk analysis to determine who and what should be examined and the extent of examination;
- Customs administrations to adopt a compliance measurement strategy to support risk management;
- Customs control systems to include audit-based controls;
- Customs administrations to seek to cooperate with the trade and to conclude Memorandum of Understandings to enhance Customs control; and
- Customs administrations to use information technology and e-commerce to enhance Customs control (transitional standard).[15]

Customs administrations need to put in place a well structured regulatory compliance management framework to complement the risk management strategy. Not surprisingly, the development of the RKC has also incorporated important concepts of contemporary regulatory compliance management. These include the application of new technology, the implementation of new philosophies on customs control and the willingness of private sector partners to engage with customs authorities in mutually beneficial alliances. Central to the new governing principles of the RKC is a required commitment by customs

[14] WCO, 'SAFE: Framework of sandards to secure and facilitate global trade' (WCO, 2012) <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/~/media/55F00628A9F94827B58ECA90C0F84F7F.ashx> (accessed on 20 January 2013).

[15] WCO, above n 2 (accessed on 18 January 2013).

administrations to provide transparency and predictability for all those involved in aspects of international trade. A modification of *Ayres and Braithwaite* (1992) Enforcement Pyramid presented in *Widdowson* (2004) identifies four levels of compliance management. These are: (i) Legislative Base, (ii) Client Service, (iii) Compliance Assessment, and (iv) Enforcement/Recognition.[16]

It may be mentioned here that the first two levels of this compliance management pyramid has been well covered in Chapter 1 of the General Annex of the RKC. These General Provisions are:

- Implementation of provisions in [General] Annex is to be specified in national legislation and is to be as simple as possible.
- Customs administrations are to work with the trade community to increase cooperation.

The issues at level 3 and 4 are appropriately addressed in Chapter 3 of the General Annex. According to the text of the RKC, 'For authorised persons who meet criteria specified by the Customs, including having an appropriate record of compliance with Customs requirements and a satisfactory system for managing their commercial records, the Customs shall provide for:

- Release of the goods on the provision of the minimum information necessary to identify the goods and permit the subsequent completion of the final Goods declaration;
- Clearance of the goods at the declarant's premises or another place authorised by the Customs; and, in addition, to the extent possible, other special procedures such as:
- Allowing a single Goods declaration for all imports or exports in a given period where goods are imported or exported frequently by the same person;
- Use of the authorised persons' commercial records to self-assess their duty and tax liability and, where appropriate, to ensure compliance with other Customs requirements;

[16] David Widdowson, 'The Changing Role of Customs: Evolution or Revolution?' (2007) 1(1) *World Customs Journal* 31.

- Allowing the lodgement of the Goods declaration by means of an entry in the records of the authorised person to be supported subsequently by a supplementary Goods declaration.'[17]

The concept of 'authorised traders' relates to businesses sufficiently 'known' and trusted by the Customs authorities to be exempted from the ordinary controls and subject to much lighter or flexible procedures and requirements. Such businesses correspond to frequent and reliable users, having a good compliance record of accurate declarations and timely payments and thus presenting low infringement risks. In Canada, the Frequent Import Release System (FIRST) allows frequent importers with a history of voluntary compliance with customs rules and low transaction risk to qualify under pre-arrival processing systems. The Spanish authorities also use a simplified declaration system based on periodical entry declarations to facilitate customs procedures for frequent and reliable users.[18]

Revenue Collection

Chapter 4 of the RKC sets out an exhaustive list of procedures and guidelines to be implemented with a view to maximise revenue collection by way of simplifying and standardising the whole customs clearance process. In terms of duties and taxes, the Chapter explicitly mentions that the national legislation shall specify the circumstances, methods, minimum value, and person(s) responsible for duty payment. The Convention also states, 'The factors on which the assessment of duties and taxes is based and the conditions under which they are determined shall be specified in national legislation.'[19] It also emphasises that the rates of duties and taxes be set out in official publications.

Furthermore, all possible explanations on deferral and repayment of duties and taxes have been stated in this particular section of the RKC. All the provisions set out in the RKC aim primarily towards facilitating trade by creating mutual relationship between the customs

[17] WCO, above n 2, Transitional Standard 3.32.

[18] OECD, 'Transparency and Simplification Approaches to Border Procedures: Reflections on the Implementation of GATT Article VIII-Related Proposals in Selected Countries' (2002) <http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=td/tc/wp(2002)50/final> (accessed on 10 January 2013).

[19] WCO, above n 2, Standard 4.3.

and business. In view of this, Standard 4.22 notes, 'Where it is established by the Customs that the overcharge is a result of an error on the part of the Customs in assessing the duties and taxes, repayment shall be made as a matter of priority.'[20]

It is a general practice for Customs to require security from the business regarding the goods imported. However, the RKC recommends flexibility in terms of such conditions. According to Standard 5.5, 'Where national legislation provides, the Customs shall not require security when they are satisfied that an obligation to the Customs will be fulfilled.'[21] The Convention further notes that the amount of security to be provided shall be as low as possible.

It is clear from the above discussion that while the RKC emphasises on the revenue collection aspect of customs duties, it also specifies that such activities shall be conducted in an environment where the national legislation works as the basis of all relevant information for both the customs and trading community to work effectively and harmoniously.

4.2.3 Impact of RKC on Customs Enhanced Role

> The challenge for Customs now-a-days is to offer the best possible service to traders and citizens in a planet characterised by economic globalisation, by the rapidly increasing trade flows and by the worldwide security threats.
>
> The economic operators ask for a quicker release of goods. This citizens fear the threats. The consumers want safe products. Against this background, Customs are confronted with apparently contradictory objectives: the facilitation of trade, calling for faster control of merchandise flows, and the security of our citizens calling for more effective controls. The challenge is to strike the right balance between the two![22]

[20] Ibid, Standard 4.22.

[21] Ibid, Standard 5.5.

[22] Laszlo Kovacs, Commissioner for Taxation and Customs Union, EC, in a speech to the East-West Institute February 2006) cited in Syed Saifuddin Hossain, 'Bangladesh Customs: Managing Risk for Better Trade' (2009) 4(2) *Global Trade and Customs Journal* 4.

It is in view of the above that the RKC provides for the simplification, harmonisation and modernisation of Customs procedures. It contains modern Customs formalities and procedures, harmonised Customs documents for use in international trade and transport, and provides for the use of risk management techniques and the optimal use of information technology by Customs administrations.

Indeed, important trade facilitation concepts such as audit based controls and authorised trading are also major elements of the Convention. By specifying the application of simple but efficient procedures and stating minimum and maximum levels of facilitation and control for import, export, and transit of goods including the movement of passengers and means of transport, the RKC is regarded as the blueprint for trade facilitation.[23]

In view of the above discussion, there is no doubt that while the statement by *Laszlo Kovacs* summarises the roles of the Customs organisations in the present day world, it is the RKC which portrays a distinctive and exhaustive guideline for effective implementation of all reform and modernisation initiatives to allow Customs to make the optimal use of its available resources. Besides, it also emphasises on capacity building and flexible implementation period for Customs administrations which lack resources to comply with international norms and practices.

Finally, it is clear that in the changing environment in which Customs now operate, the early implementation of the RKC principles will yield significant and measurable results by improving the effectiveness and efficiency of Customs administrations. These benefits may include (but not limited to):

- Reduced cost of clearing customs in other countries;
- Reduced delays in getting the goods into the country;
- Reduction of documentation requirement (which may in-turn result in *paperless trade*);
- Reduction of inefficient customs procedures and policies that impede access to markets and unnecessarily increase costs;
- Facilitation of product market introduction;

[23] GFPTT, <http://www.gfptt.org/Entities/TopicProfile.aspx?tid=4eeacac5-c34b-41be-b7f1-880e58d1a17f> (accessed on 18 March 2012).

- More efficient customs procedures overall;
- Standardisation of customs implementation and administrative procedures at the global level;
- Reduced cycle time due to more predictability in the customs entry and release process, which also results in inventory savings;
- Greater understanding of compliance requirements resulting from increased transparency so that industry is better able to meet 'time-to-market' objectives;
- Implementation of special procedures for low-risk importers; and
- Reduced opportunities for unethical practices among the customs officials.

These benefits from RKC warrant further discussion to understand their impact on the relevant parties. It has been widely recognised that RKC accession has considerable benefits. Therefore, it is worth seeking successful RKC accession in order for an economy to reap the full benefits of the RKC.[24] In this connection, early RKC accession is more beneficial, considering potential opportunity costs during the period of non-Contracting Parties. This section summarises the discussion on the benefits related to RKC accession, including the 'announcement effect' of being certified as having international Customs standards in place, benefits in future standard making, and advantages in trade negotiations and capacity building activities.

Certification as having international Customs standards in place

Accession to RKC benefits a country by certifying that it is in the process of enhancing the efficiency of its Customs agency.[25] This is particularly important in view of the fact that sometimes Customs modernisation efforts at the national level may not be visible to the international community. In such a scenario, the RKC accession enhances the country's credibility to its trading partners. The legally binding nature of the RKC acts as a manifestation of the government's efforts towards implementing and promoting Customs modernisation consistent with international standards. No doubt that such acceptance by the international community all wins the faith of the investors and attract more FDI into the RKC implementing country.

[24] WCO, above n 2.

[25] APEC, 'Revised Kyoto Convention: A pathway to accession and implementation' (APEC, 2003) 2.

Advantages in trade negotiations

The RKC is a reference tool within the WTOs trade facilitation negotiating group (TFNG), and it has been observed that RKC Contracting Parties have taken leading roles in the negotiations. Considering that the RKC provides international Customs standards and already encompasses a large portion of global trade, the RKC and TFNG proposals should be closely aligned. WTO outcomes that are consistent with the RKC would also strengthen the WCO's position in the international community. In this regards, the WCO and RKC Contracting Parties are encouraged to continue to draw attention to the importance of maintaining the compatibility of the WTO proposals *vis-a-vis* the RKC from a technical standpoint.

Advantages in capacity building activities

WCO Members that have expressed an intention to accede to the RKC have a greater likelihood of receiving capacity building related to the RKC measures, offered by the WCO, other international organisations, and donor countries. For example, the WCO has conducted many national and regional RKC seminars for candidate economies, and plans more capacity building activities in the coming years.

In addition, being an RKC Contracting Party is considered to be an important benchmark of successful achievement in capacity building programmes.[26] Many Customs reform and modernisation programmes designed to introduce Customs procedures and techniques in accordance with the RKC, such as risk management and post-clearance audit systems. Because of the legally binding nature of the RKC, an RKC Contracting Party is able to announce that its Customs reform and modernisation programmes have been successfully implemented, and more importantly to emphasise that the reform and modernisation process will not be backtracked. In addition to demonstrating its capability of implementing government reform and modernisation programmes by being an RKC Contracting Party, a recipient economy may attract other government reform and modernisation programmes.

[26] WCO, above n 2.

Faster release and lower trade costs

Many RKC measures, including computerised or Electronic Data Interchange (EDI) Customs Systems, Customs risk management systems, and pre-arrival information, are expected to improve Customs release times. Faster release of goods at borders is beneficial directly and indirectly for both Customs administrations and businesses. For example, it enables Customs administrations to process more transactions without delay at borders, so that they can deploy their limited resources to high-risk cargoes, such as those infringing IPRs,. It also allows trades to enhance their competitiveness in domestic and international markets thereby to enhance business opportunities.

For instance, the New Zealand Customs Services made a commitment to itself that an application for both import and export permission is to be processed within 0.5 hours by EDI and within 24 hours by non-EDI.[27] Low-risk goods identified by Customs risk management systems are less likely to be subject to Customs physical examination at borders. Furthermore, a series of surveys by Japan Customs on the time required for the release of goods showed that release times have been reduced by the introduction and improvement of various Customs procedures and techniques. With pre-arrival information, for example, the survey in March 2009 indicated that the average release time for sea-cargoes was 1.7 hours, which was about 60 per cent shorter that the 4.1 hour average in cases without pre-arrival information.[28]

RKC implementation also results in faster release of goods at border reducing trade costs for business. *Hummels* (2001) estimated that a saving of one day in shipping manufactured goods would be equivalent to 0.8 per cent of the value of goods.[29] Other RKC measures which are expected to reduce trade costs may include fewer Customs formalities, reduced data requirements, and higher predictability in release times and the necessary Customs procedures. Assuming that trade costs were reduced by 1 per cent on average world-wide, it is estimated that world income would increase by about USD 40 billion.[30]

[27] WTO, 'Trade Policy Review: Secretary Report: New Zealand' (2009) 7.

[28] Japan Customs, 'The results of the 9th Time Release Study (Press Release)' (2009) <www.mof.go.jp/jouhou/kanzei/ka21076.htm> (accessed 26 February 2010).

[29] D. Hummels, 'Time as a trade barrier' (Working Paper, Purdue University, 2001) 25.

[30] OECD, 'Quantitative assessment of the benefits of trade facilitation' (2003) 8.

Increased revenue

Revenue collection remains a core role for many Customs administrations.[31] It is widely recognised that specific RKC measures potentially strengthen the capacity of Customs administrations to improve revenue collection. Firstly, revenue could increase as a result of a larger tax base (more imports) attracted by faster release of goods and lower trade costs as discussed above. Secondly, the OECD (2009) suggested that trade facilitation measures could reduce the incentives for 'informal' cross-border trade, on which traders do not pay Customs duty and VAT.[32] Last but not the lease, a specific Customs technique such as post-clearance audit could enhance revenue collection.

Experience has often showed that Customs revenue increased significantly following Customs reform and modernisation programmes.[33] However, the outcomes were achieved not only due to the programmes, but also because of many other factors. It is hard to estimate how much the programmes contributed to the revenue increase in quantitative terms. Nevertheless, there are several items of evidence which provide an idea of the effect of specific RKC measures in this field. With post-clearance audit operations, for example, Japan Customs has increased its Customs revenue annually by around 3 per cent.[34]

More FDI and economic competitiveness

Many RKC measures, such as Customs-Business Partnership, transparency and appeal procedures, are expected to enhance FDI and economic competitiveness. According to surveys conducted by the *World Bank* (2003), the private sector considered efficient and simplified border procedures to be one of the important factors in determining where to

---

[31] WCO, 'Summary Report: Revenue Management Conference' (2009) 3.

[32] In Uganda, informal imports from, and exports to its five neighbouring countries were estimated at USD 81 million and USD 232 million respectively in 2006, corresponding to around 19 percent and 86 per cent of its official imports from, and exports to, those countries. See OECD, 'Informal cross-border trade and trade facilitation reform in sub-Saharan Africa: final report' (2009), TAD/TC/WP(2008)13/Final, OECD Trade Policy Working Paper No. 86.

[33] World Bank, 'WTO Trade Facilitation: Negotiations Support Guide' (2005) <http://newcustomscentre.files.wordpress.com/2012/09/wto_trade_facilitation_negotiations_support_guide.pdf> (accessed 10 November 2012).

[34] Japan Customs, *Result of post-clearance audit examination in fiscal year of 2008* <www.mof.go.jp/jouhou/kanzei/ka211009b.htm> (accessed 10 March 2012).

invest.[35] Customs procedures which are in accordance with the RKC are of significant importance for the prevailing just-in-time systems in the vertical specification of production, where materials as well as intermediate and semi-finished products need to cross borders many times in order to produce a finished product.

Customs facilitate the efficient transit of goods.[36] Recognising that international trade is an engine of economic growth, the WCO has emphasised the importance of not using Customs procedures as non-tariff barriers to trade. When goods are traded faster at lower cost, traders will obtain higher competitiveness in domestic and international markets, and may also discover the possibility of exporting perishable goods that were not exportable before. Without smooth and predictable Customs procedures in both the exporting and importing countries, for example, the fresh flower trade from Africa to Europe would not have grown significantly.

Non-economic benefits

In addition to the economic benefits mentioned above, RKC implementation is expected to promote protection of security, society and human health.[37] Customs risk management is a key element to implementing effective Customs controls while facilitating legitimate flows of trade. Standardised information technology helps in the detection of movements of illicit goods or people across borders by enabling a Customs administration to coordinate in a timely manner not only with other border agencies and the private sector but also with international partners. In addition, transparent and predictable Customs procedures effectively improve the integrity and professionalism or Customs administrations worldwide. [38] Moreover, sound RKC implementation helps to facilitate inbound and outbound flows of goods and people in the vent of natural disasters and other emergencies.

[35] World Bank, 'Investment Climate Survey Database' (2003) 37.

[36] IMD, 'IMD World Competitiveness Yearbook 2009' (2009) 31.

[37] Syed Saifuddin Hossain, 'Revised Kyoto Convention: The Best Practice Guide for Customs' (2008) 3(11/12) *Global Trade and Customs Journal* 385.

[38] Debapriya Bhattacharya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006) 16.

Basis for implementing other Customs instruments and tools

It has been argued that RKC implementation serves as a basis for implementing other Customs instruments and tools.[39] It was found that all 10 building blocks in the WCO document titled Customs in the 21st Century were consistent with the RKC.[40] In addition, the WCO SAFE Framework of Standards was developed based on the RKC to secure the international supply chain while facilitating legitimate trade. For example, the Authorised Economic Operator (AEO) concept of the SAFE has its origin in the RKC's *authorised persons* concept. In fact, most RKC Contracting Parties have expressed an intention to implement SAFE.

The RKC is also regarded as a reference tool in the WTO negotiations on trade facilitation. It is considered to be wholly compatible with the current proposed Customs-related texts in the WTO negotiations on trade facilitation, although the wording of the texts was never similar to the RKC and sometimes went beyond it. Through RKC implementation, therefore, it can be said that Customs administrations are able to prepare for the future outcomes of the WTO negotiations on trade facilitation.

The above discussion aims primarily to summarise the benefits of both acceding to and implementing the RKC in order to assist non-Contracting Parities in their national accession efforts. The RKC presents a blueprint for modern and efficient Customs procedures in the 21st century to facilitate legitimate trade while not compromising the Customs control function. It provides a comprehensive and basic set of international Customs standards, and already covers a large portion of global trade. The RKC also serves as a basis for other Customs instruments and tools including the WCO-SAFE and constitutes a benchmark successful capacity building activities. In this regard, the RKC is recognised as a brand name for best practices in Customs procedures.

It is widely recognised that there are considerable benefits which accrue from RKC accession. One of the biggest advantages of RKC accession is the announcement effect that an RKC Contracting Party is certified as having international Customs standards in place. It is useful for Governments to send a clear message that they intend to facilitate legitimate

[39] Hossain, above n 37, 383.

[40] WCO, above n 8, 45.

trade and secure the movement of international trade. Having the status of an RKC Contracting Party is also useful in attracting FDI. Other advantages which have been identified related to trade negotiations and capacity building activities.

Moreover, the benefits of the simplified and harmonised Customs procedures embodied in the RKC have been well documented in the context of trade facilitation. According to existing literature and evidence, substantial benefits are achievable and RKC is implemented. These may include faster release of goods at borders and lower trade costs, increased revenue, and more FDI and economic competitiveness. In addition, RKC-implementations could also serve as a basis for implementing other Customs instruments and tools including the WTO SAFE, and for implementing the future outcomes of the WTO negotiations on trade facilitation.

4.3 WTO Trade Facilitation Agreement vis-à-vis the RKC**

The WTO Agreement of Trade Facilitation (TFA), resulting from the 9th WTO Ministerial Meeting in Bali, has ushered high hopes among the international trading community. Some of these hopes relate directly to the various provisions of the RKC. As both the documents emphasise on facilitating international trade, it is worth presenting a commentary of the TFA vis-à-vis the RKC.

Publication and availability of information (TFA Article 1)

Four issues are regulated by this Article. The first issue concerns prompt publication of information 'in a non-discriminatory and easily accessible manner in order to enable governments, traders and other interested parties to become acquainted with them'. Such information may relate to importation, exportation and transit procedures and the required forms and documents, applied rates of duties and taxes imposed in connection with importation or exportation, or other aspects enumerated in the said article. The second concerns availability of information through the internet. And in this case, WTO Members are obliged to make available import, export or transit procedures and other relevant trade related information on the internet; and whenever practicable, also to make it available in one of the WTO official languages. Third, WTO Members are required to establish and

** Section 4.3 is mostly reprinted from *World Customs Journal*, volume no. 8, issue no. 2, 2014, pages 30-34, with permission from the journal's Editor-in-Chief.

maintain enquiry points to answer reasonable enquiries of governments, traders and other interested parties on matters relating to publication of information contained in paragraph 1.1. Fourth, WTO Members are obliged to notify the Committee on Trade Facilitation the official place(s) where the items in subparagraphs 1.1.a. to 1.1.j. have been published and the Uniform Resource Locators (URLs) of website(s) referred to in paragraph 2.1, as well as the contact information of the enquiry points referred to in paragraph 3.1.

The same requirements of Article 1 of the TFA are extensively addressed by the RKC in chapters 4, 7 and 9 of the General Annex. In addition, the RKC has comprehensive guidelines which, even though they are not part of the legal text of the Convention and entail no legal obligations, contain important explanations of the provisions of the Convention and give examples of best practices or methods of application and future developments. Therefore, with regard to publication and availability of information, the TFA essentially adds political value to the already existing international trade facilitation standards and best practices of the RKC.

Opportunity to comment, information before entry into force and consultation (TFA Article 2)

This Article requires WTO Members, to the extent practicable and in a manner consistent with domestic legal systems, to provide traders and other interested parties with opportunities and an appropriate time period to comment on the introduction or amendment of laws and regulations and regulations of general application related to the movement, release and clearance of goods, including goods in transit. WTO Members are also required to make new or amended laws and regulations available before their entry into force. RKC, General Annex § 1 (1.3) also requires that formal consultative relationships be maintained with the trade. And according to the RKC, General Annex § 9 (9.2), revised information is supposed to be made available sufficiently in advance of the entry into force of the changes. This is yet another manifestation of the spirit of the RKC in the WTO-TFA.

Advance rulings (TFA Article 3)

First, it should be noted that an advance ruling (in the context of the TFA) ‘is a written decision provided by a Member to an applicant prior to the importation of a good covered

by the application that sets forth the treatment that the Member shall provide to the good at the time of importation with regard to (i) the good's tariff classification, and (ii) the origin of the good' (TFA 3:9.a.). In essence, the Article requires WTO Members to issue advance rulings regarding the tariff classification and the (non-preferential) origin of goods and sets the rules stipulating the issuance of advance rulings in a reasonable and time bound manner, including cases where an application may be declined by WTO Members. In addition, pursuant to TFA 3:9.b., WTO Members are encouraged to issue advance rulings for other areas such as customs valuation and requirements for relief or exemption from customs duties.

In the introduction to the WCO guidelines to chapter 9 of the General Annex, it is clear that availability of information on customs matters (to those who need it) is one of the key elements of trade facilitation. And when such information is requested, it is the responsibility of Customs to provide it completely and accurately and as soon as possible.[41] In addition, RKC, General Annex § 9 (9.9) stipulates that binding rulings shall be issued at the request of the interested person. In the general spirit of this paper, it is interesting to note that the guidelines to this standard go on to cover various aspects of binding rulings, including their scope, notification, time limits and use. All this demonstrates the depth of the RKC in regard to trade facilitation regulations – seen from both regulatory and implementation points of view.

Appeal or review procedures (TFA Article 4)

The gist of this Article is to oblige WTO Members to provide that any person to whom Customs issues an administrative decision has the right to administrative appeal or review, and/or judicial appeal or review; and that the administrative and judicial review should be carried out in a non-discriminatory manner. The question of appeals/reviews in customs matters is also well catered for by the RKC in chapter 10 of the General Annex.

The different standards therein provide for a transparent and multi-stage appeal process to avoid victimisation (and/or to prevent the perception thereof) by those affected by Customs' decisions. Undoubtedly, the availability of an independent judicial review as a final avenue of appeal is also intended to instil confidence among stakeholders in

[41] WCO, above n 2, General Annex 9.

government institutions and in particular in customs administrations. Concerning appeals, too, it is evident that the content of Article 4 of the TFA is almost entirely traceable to the RKC. We note, though, that in contrast to the RKC, the TFA brings out clearly and expressly the principle of 'non-discrimination', which is obviously central to all WTO law.

Other measures to enhance impartiality, non-discrimination and transparency (TFA Article 5)

In view of enhancing impartiality, non-discrimination, and transparency three measures are advanced by Article 5 of the TFA namely: (1) notifications for enhanced controls or inspections; (2) detention; and (3) test procedures. It should be noted that where a WTO Member adopts or maintains a system of notifications for enhancing controls or inspections in respect of foods, beverages or feedstuffs, that Member should follow certain principles such as 'risk-based' and 'uniform application' as paragraph 1 stipulates.

From the context of the RKC, one notices that chapter 6 of the General Annex set standards on customs control, risk management and cooperation with other customs administrations. It is true that these provisions do not relate directly to the notification system. Nevertheless, they could be vital in the implementation of Article 5 of the TFA.

Disciplines on fees and charges imposed on or in connection with importation and exportation (TFA Article 6)

Paragraph 1 of this Article essentially requires WTO Members to publish information on fees and charges imposed on or in connection with importation and exportation, and to review the fees and charges periodically with a view to reducing their number and diversity. Paragraph 2 goes further to state that 'fees and charges for customs processing:

i. shall be limited in amount to the approximate cost of the services rendered on or in connection with the specific import or export operation in question; and
ii. are not required to be linked to a specific import or export operation provided they are levied for services that are closely connected to the customs processing of goods'.

Many standards of the RKC also stipulate that fees and charges shall be limited to the approximate cost of the services rendered.[42] Even penalty disciplines regulated by paragraph 3 of this Article are extensively addressed in Specific Annex H1 of the RKC.

Release and clearance of goods (TFA Article 7)

The Article contains provisions on pre-arrival processing; electronic payment; separation of release from final determination of customs duties, taxes, fees and charges; risk management; post-clearance audit; establishment and publication of average release times; trade facilitation measures for authorised operators; expedited shipments; and perishable goods. The central messages in all these provisions are the requirement for WTO Members to adopt or maintain procedures allowing for the submission of import documentation prior to the arrival of goods, and to allow electronic lodgement of such documents. The use of modern methods of management such as risk management and post-clearance audit are also emphasised.

The RKC also offers a number of standards which deal with prior lodgement and registration of goods declaration, which procedures create a balance between the interests of traders and customs administrations.[43]

TFA 7:6 encourages WTO Members to measure and publish their average release time of goods periodically and in a consistent manner, using tools such as, inter alia, the WCO Time Release Study. It also encourages them to share with the Committee on Trade Facilitation their experiences in measuring average release times, including methodologies used, bottlenecks identified, and any resulting effects on efficiency. A similar provision, however, is absent in the RKC. Instead, it can be traced to the WCO's 'Guidelines for the immediate release of consignments by Customs'.[44]

[42] Ibid General Annex 3 and 9.

[43] These relate to Article 7 of the Agreement on Trade Facilitation, and RKC General Annex 6 and 7.

[44] WTO, *Guidelines for the immediate release of consignments by Customs* (2006), available on www.wcoomd.org/en/topics/facilitation/resources/~/media/D0F3EA60B983435E ABE3C63 DC23636C6.ashx, (accessed 10 February 2014).

Border agency cooperation (TFA Article 8)

According to this Article all national border authorities/agencies are supposed to cooperate with each other and coordinate border control and procedures to facilitate trade. Such cooperation and coordination may include 'alignment of working days and hours; alignment of procedures and formalities; development and sharing of common facilities; joint controls; [and] establishment of one stop border post control'.

Chapter 3 of the General Annex to the RKC contains a number of provisions geared towards cooperation and coordination amongst border agencies. For instance, Transitional Standard 3.35 states that 'if the goods must be inspected by other competent authorities and the Customs also schedules an examination, the Customs shall ensure that the inspections are coordinated and, if possible, carried out at the same time'.

Movement of goods under customs control intended for import (TFA Article 9)

This Article obligates WTO Members, 'to the extent practicable and provided all regulatory requirements are met, [to] allow goods intended for import to be moved … to another customs office … where the goods would be released or cleared'. The type of movement of goods referred to in this Article can be categorised as national transit procedure which is extensively regulated by Specific Annex E of the RKC.

Formalities connected with importation and exportation and transit (TFA Article 10)

Basically, TFA 10 calls for regular review of formalities and documentation requirements to minimise the incidence and complexity of import, export and transit formalities. In other words, it calls for simplification of documentation requirements. WTO Members are supposed to ensure that such formalities and documentation requirements are as fast and efficient as possible. Thus, the Article under discussion inevitably tackles a number of aspects central to importation, exportation and transit namely: documentation requirements; acceptance of copies; use of international standards; single window; preshipment inspection; use of customs brokers; common border procedures and uniform documentation requirements; rejected goods; temporary admission of goods; and inward and outward processing.

Apart from pre-shipment inspection, chapters 3 and 8 of the General Annex and Specific Annexes C, G, F and E to the RKC address all the above-mentioned formalities with various standards, transitional standards and recommended practices to be followed. Indeed these provisions have been seen to be essential to customs modernisation.

Freedom of transit (TFA Article 11)

This Article contains a number of provisions relating to freedom of transit. Essentially, it requires that regulations or formalities in connection with traffic in transit be eliminated or reduced if they are no longer required; and that fees or charges may be imposed on transit only for transportation or if commensurate, with administrative expenses entailed or with the cost of services rendered. It includes several measures intended to facilitate transit procedures, including the pre-arrival declaration; and prohibits restrictive measures in relation to customs charges, formalities, and inspections other than at the offices of departure and destination. It also contains provisions relating to guarantees.

A close look at chapters 1 and 2 of Specific Annex E to the RKC, coupled with the respective guidelines, shows the centrality of the RKC to trade facilitation in the field of transit and transhipment. For instance, chapter 1 covers formalities at the office of departure, customs seals, formalities en route and termination of customs transit. And chapter 2 deals with transhipment.

Customs cooperation (TFA Article 12)

This Article contains various provisions which concern cooperation between customs administrations. For instance, it sets the terms and requirements for WTO Members to share information to ensure effective customs control while respecting the confidentiality of the information exchanged. The Article allows WTO Members flexibility in terms of establishing the legal basis for information exchange. Moreover, WTO Members may even enter into or maintain bilateral, plurilateral or regional agreements for sharing or exchanging customs information and data, including advance information.

Chapters 1, 3, 6 and 7 of the RKC also contain a number of provisions intended to realise customs cooperation and, ultimately, facilitate trade. For instance, Standard 6.7 stipulates

that ‘Customs shall seek to cooperate with other customs administrations and seek to conclude mutual administrative assistance agreements to enhance customs control’.

The comparison made above clearly demonstrates how the provisions of the WTO TFA are largely a repackaging of the principles and various rules, standards and best practices contained in the RKC. This assertion, however, is not meant to undermine the importance of the TFA. On the contrary, it is meant to invigorate synergies between the WTO and the WCO in their continuous attempt to facilitate trade across the globe.

It is therefore pertinent that trade facilitation and safety and security issues get a formidable legal framework with a binding character across the board. One way of achieving this is to reduce the fragmentation of facilitation and security provisions found in many instruments currently in place, such as, the TFA, RKC and SAFE.

4.4 Combating IPR Infringements at the Australian Border[***]

The Australian Customs Service manages the security and integrity of the Australian border and assists people and cargo to move in and out of the country. It works with other government agencies, such as the Australian Federal Police, the Australian Quarantine and Inspection Service, the Department of Immigration and Citizenship and the Department of Defence, to detect and deter the unlawful movement of goods and people across the Australian border. The underlying objective of such co-operation is to protect the Australian community by intercepting illegal goods, such as drugs and weapons. To this end, a high priority and sophisticated techniques are used to target high-risk aircraft, vessels, cargo, postal items and travellers.

While performing its day-to-day activities, the Australian Customs puts high emphasis on interception of prohibited or restricted items including illicit drugs, weapons, pornography, unsafe products, therapeutic goods, wildlife, quarantine items and goods which breach intellectual property rights.

[***] Sections 4.4 and 4.5 have been mostly reprinted from *Global Trade and Customs Journal*, volume no. 4, issue no. 1, 2009, pages 1-14, with permission from Kluwer Law International.

4.4.1 Legislative Framework of the Australian Customs on IPR protection

As mentioned in the preceding discussion, the traditional role of Customs over the years has been the enforcement of prohibitions and restrictions and the collection of import and export revenues. This role has evolved over time to include the facilitation of legitimate trade and protection of society through environmental, health and cultural controls. That is, there has been a shift from the economic protection function of Customs (through the instruments of Customs duties) to a broader protection of society and the citizen. During 2006, Customs authorities around the world seized more than 322 million counterfeit or pirated articles: the top 5 articles being (i) CDs and DVDs, (ii) cigarettes, (iii) toys and games, (iv) footwear, and (v) cosmetics and perfumes.[45]

While the nature and scope of the Australian Customs in primarily governed by the *Customs Act 1901*, there are specific provisions to detain and deal with goods that infringe registered trademarks, copyright material or protected Olympic expressions. These provisions are contained within the *Trade Marks Act 1995*, the *Copyright Act 1968*, and the *Olympic Insignia Protection Act 1987*. Besides, a new legislation titled the *Melbourne 2006 Commonwealth Games (Indicia and Images) Protection Act 2005* was enacted on 26 June 2005. It was in force until 30 June 2006. Although no seizures of counterfeit goods were made under this legislation, the importance of having such a measure in place is highly recognised.

Table 4.1

Provisions to Combat IPR Infringements

Legislation	Relevant Section	Subject Matter
Trade Marks Act 1995	Section 133 CEO may seize goods infringing trade mark	• Power to seize infringing goods • Seized goods to be kept in a secure place
	Section 136	• If no action is brought with regard

[45] WCO, 'Illicit Trade Report 2012' (WCO, 2013) <http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/~/media/WCO/Public/Global/PDF/Topics/Enforcement%20and%20Compliance/Activities%20and%20Programmes/Illicit%20Trade%20Report%202012/WCO%20REPORT%202013%20-%20BR.ashx> (accessed on 14 March 2014).

Legislation	Relevant Section	Subject Matter
	Release of goods to owner- no action for infringement	to the *notified trade mark* • If the objector withdraws any objection
	Section 137 Action for infringement of trade mark	• Objector's right to resort to action for infringement of *notified trade mark* • CEO may extend time for such action • CEO to release seized goods unless otherwise required
	Section 140 Power of CEO to retain control of goods	• CEO is to retain control of the seized goods if required or allowed under any law of the Commonwealth
	Section 261 Notices to Customs CEO objecting to importation of goods	• Validity and expiry of a Notice of Objection
Copyright Act 1968	Section 135 Restriction of importation of copies of works etc.	• Customs to seize unauthorised copies of copyright materials
	Section 135AA Decision not to seize unless expenses are covered	• CEO may decide not to seize goods unless undertaking or security in provided by the objector to meet the expenses of the seizure
	Section 135AJ Failure to meet Commonwealth's expenses of seizure	• CEO may take action against the objector if expenses of seizure are not met
Olympic Insignia	Section 54 CEO may seize goods	• CEO must seize goods unless there is no reasonable ground to do so

Legislation	Relevant Section	Subject Matter
Protection Act 1987		• Seized goods to be kept in a secure place
	Section 55 Notice of seizure	• CEO to issue notice of seizure to owner and objector immediately
	Section 56 Forfeiture of goods – by consent	• Forfeited goods to Commonwealth to be disposed of as directed by the CEO
	Section 57 Release of goods – no application for injunction	• If no action is brought with regard to the *notified trade mark* • If the objector withdraws any objection
	Section 60 Power of CEO to retain control of goods	• CEO is to retain control of the seized goods if required or allowed under any law of the Commonwealth

Note: CEO refers to the Chief Executive Officer of Customs

Source: Commonwealth of Australia[46]

The abovementioned domestic legislations are not static, and are subject to amendment to meet the needs of the day. The two most important international trade bodies that affect the functioning of such laws are the WTO TRIPS Agreement and the WCO's Model IPR Legislation. Following are the major features of these two international instruments impacting upon the functioning of Customs in their efforts to secure and protect border from IPR infringements.

4.4.2 Operational Procedure in Combating IPR Infringements

All movements across the border are screened by Customs using a range of intelligence, targeting and profiling techniques. Once a suspect passenger or consignment has been

[46] Commonwealth of Australia, 'Trade Marks Act 1995' (1995) <http://www.austlii.edu.au /au/legis/cth/consol_act/tma1995121/> (accessed on 10 April 2013); Commonwealth of Australia, 'Copyright Act 1968' (1968) <http://www.austlii.edu.au/ au/legis/cth/consol_act/ca1968133/> (accessed on 10 April 2013); Commonwealth of Australia, 'Olympic Insignia Protection Act 1987' (1987) <http://www.austlii.edu.au/au/legis/cth/consol_act/oipa1987306/> (accessed on 10 April 2013).

identified through this filtering process, further research or operational activity may be conducted in order to complete a risk assessment.

Container Examination and X-ray Facilities

Customs has large container examination facilities in the ports of Sydney, Melbourne, Brisbane, and Fremantle as part of a strategy to boost sea cargo inspection rates through the use of container x-ray technology. Customs also uses mobile x-ray vans and smaller x-ray machines to scan items such as parcels that arrive in Australia each day at international mail centres and air freight depots.

Trace particle Detection

Ion mobility spectrometers analyse minute particles collected from passenger baggage and other personal items, postal articles or items of cargo to detect traces of illicit substances, such as drugs, from the outer surfaces or packaging of these items.

Computer Forensics

To deal with the growing use of electronic media, a national computer forensics capability has been created. Facilities, in five regional centres, are equipped with technologies and processes to acquire, analyse and reconstruct evidence in a manner admissible in a court of law.

Detector Dog Program

In addition to using the detector dogs in the country, the Australian Customs provides training to countries such as China, Indonesia, Malaysia, and Samoa.

These state-of-the-art technological and strategic measures play a vital role for the Australian Customs in the context of seizure of counterfeit goods. The responsibility of the Customs does not end with the seizure of the illicit products. The next steps are critical to ensure that (i) the seizure was rightly made, and (ii) the offender in prosecuted according to the rule of law.

4.4.3 From Seizure of Infringed Goods to Prosecution/Disposal

Customs seizes importations that infringe copyright or a registered trade mark where a Notice of Objection has been lodged with Customs by the right owner (objector). The seized goods are held for ten working days from the date the objector is notified of the seizure (action period). The action period may be extended by a further 10 working days if approved by the Customs CEO. Both the importer and objector will be notified of the seizure. Before the end of the action period:

- the objector has the option to commence legal action; or
- the objector will consent to release the goods; and
- the importer has the option to voluntarily forfeit the goods, provided civil action has not commenced.

If the objector does not commence legal proceedings within the action period, Customs must release the goods unless the importer has voluntarily forfeited them. This is subject to all other legislative requirements being met.

At the conclusion of any legal action, the court will make an order with regard to the goods – either order the goods be released to the importer or that they be forfeited to the Commonwealth.[47] Customs disposes of forfeited goods as directed by the Customs CEO, usually by destruction or donation to a charity, as appropriate.

[47] Commonwealth of Australia, 'Annual Report 2006-07' (Australian Customs Services, 2007) <http://www.customs.gov.au/webdata/resources/files/AnnualReport06_07_Full.pdf> 29.

Box 4.2
Successful seizure by Australian Customs

The sentencing of a Brisbane man to imprisonment for 28 charges relating to importing, possessing and exposing for sale counterfeit DVDs in June 2004 was the first sentencing of an Australian to a jail term under the Copyright Act 1968.

The offender was sentenced in Brisbane Magistrates Court to nine months imprisonment (with three months to serve), a recognisance of $1500 and five years good behaviour.

The investigation began in September 2003 when Air Cargo Officers detected approximately 800 counterfeit DVDs in a shipment of audio speaker stands that had been constructed to conceal the DVDs. The shipment was sent from Malaysia consigned to a false business name and address.

In October 2003, Customs Investigators and AFP officers executed a search warrant on another Brisbane address during which further counterfeit DVDs were located.

After his court appearance, the man was continuing to sell DVDs at a Sunshine Coast market. As a result, in March 2004 another search warrant was executed on his stall. The man was arrested again in connection with this seizure of DVDs.

Source: Commonwealth of Australia, 2007[48]

4.5 Implementation of IPR Laws: Australian Regime vis-à-vis the WCO

In its efforts to effectively implement the legislative provisions regarding the border enforcement of IPR laws, the Australian Customs has been working in unison with the increasing international standards. The nature of IPR infringement has reached such a stage that virtually anything that can be bought and sold is now being counterfeited: soup, mineral water, breast implants, contact lenses, toothpaste, sweets, jam, pharmaceutical products for treating life-threatening conditions such as breast cancer and high blood pressure, pacemakers, baby milk, weapons of war, automobile brake disc pads, and so on.

[48] Ibid, 25-37.

Each year Australian Customs seizes significant number of counterfeit and pirated goods. There is no doubt that if such seizures were not made, those goods would have posed considerable threat not only to the Australian economy, but also to the society in general.

As a Member of the WCO, Australia closely follows the developments that take place within the ambit of the organisation to strengthen the risk-based compliance management framework. Rendering greater efforts to strengthen the supply-chain security is one of the prime targets of the Australian Customs.

4.5.1 Major WCO Initiatives to Counter IPR Infringements

While the WCO Model IPR Legislation sets out the legal provisions for Customs to fight against the menace of counterfeiting and piracy, a number of procedural and operational documents has been developed by WCO to provide pragmatic guidelines for effective enforcement of IPR laws at the borders.

Provisional Global Customs Standards to Counter Intellectual Property Rights Infringements

In 2007, WCO developed the document titled *Provisional Standards Employed by Customs for Uniform Rights Enforcement* (SECURE). The objective of this effort was to promote improved border enforcement of IPR by better co-ordinating Customs effort to interdict and disrupt illicit trade in IPR-infringing goods. SECURE identified three key areas that needed to be addressed to ensure border protection of IPR laws.[49] These are:

- IPR Legislative and Enforcement Regime Development,
- Risk Analysis and Information Sharing, and
- Capacity Building for IPR Enforcement and International Cooperation

Customs Enforcement Network (CEN)

There is no doubt that early enforcement intervention (examination on export) is likely to have significant positive effect in terms of intercepting illicit trade of counterfeit and pirated goods. This then leads to the notion of strong co-operation between Customs

[49] WCO, 'Provisional Standards Employed by Customs for Uniform Rights Enforcement (SECURE)' (2007) <http://keionline.org/misc-docs/SECURE_text.pdf> (accessed on 17 February 2012).

services by way of information sharing and capacity building. It is the recognition of this fact that the WCO developed the Customs Enforcement Network (CEN) system which came into operation in July 2000. The CEN is currently being used by Customs officials representing more than 150 countries.[50]

Four components of the CEN system are:

(1) database (to research IPR seizures and offences to present data for Customs use and analysis);
(2) website (for Customs information and reference needs);
(3) communication system (to facilitate communication and co-operation between Customs services); and
(4) photo database (to graphically demonstrate common, unique or innovative means of concealment, disguise).

IPR Customs Expert Group and IPR Strategic Group

The IPR Customs Expert Group and the IPR Strategic Group have been formed with a view to analyse criminal violations and provide effective guidance on how to cope with the negative impacts of counterfeiting and piracy. While the former is mainly concerned with updating the WCO Model IPR Legislation, the latter gathers both Customs Officials and private sector representatives to establish the highest degree of synergy and cooperation in the common fight against IPR violations.

Training

WCO has developed a joint Customs/business training programme on IPR. This is an innovative partnership developed to operate with due regard for economic necessities. The new e-learning module on the protection of intellectual property rights was launched at the *Second Global Congress on Combating Counterfeiting and Piracy* (November 2005, Lyon - France). These e-learning modules, used by the WCO's 171 Member administrations, help Customs officers to target and improve their IPR-related strategies and activities.

[50] WCO, *World Customs Organization* <http://www.wcoomd.org/> 3 (accessed 07 February 201).

Customs Kit to Combat Counterfeiting and Piracy More Effectively

WCO Secretariat is in the process of finalising a 'kit of measures for enabling Members to fight counterfeiting more effectively'. This new instrument, envisaged to be adapted to the socio-economic reality of Members, could take the form of an 'ISO 9002'-type quality charter based on six key themes:

(1) Improvement of the Customs legislation in force;
(2) Implementation of a risk analysis system for combating counterfeiting and piracy;
(3) Publication of an annual statistical report making it possible to quantify and qualify these fraud phenomena;
(4) Use of the CEN system for information exchange;
(5) Improved co-operation with right holders; and
(6) International co-operation.

Aimed at reducing the existing legislative and operational discrepancies, this 'best practices kit' is believed to be able to make it possible to more tightly control the main international routes used to transport illicit products and, at the same time, to provide improved health protection and safety for the global consumer.

4.5.2 Australian IPR Regime vis-à-vis the WCO Initiatives

In view of the above discussion, it may be said that effective border protection against IPR violations depends on three key issues. These are:

- Customs interface with other border agencies;
- Customs-Right Holders partnership; and
- Customs-to-Customs co-operation.

The performance of the Australian Customs against these three benchmarks is discussed below:

Customs Interface with other Border Agencies

In its efforts to maintain a whole-of-government approach to fight against IPR violation, the Australian Customs maintains a strong operational network with a number of other

government agencies. Table 5 presents a summary of the nature of co-operation existing within this network.

Table 4.2

Customs-Border Agency cooperation against IPR violation

Agency	Areas of Co-operation
Australian Bureau of Statistics (ABS)	• Implementation and administration of statistical code operation on behalf of the ABS. • Provision of import/export declaration data, tariff codes and client data as inputs for the preparation of national trade statistics by ABS.
Australian Crime Commission (ACC)	• Provision of information, intelligence and analytical support to ACC Determinations. • Contribution to joint operations and investigations.
Australian Federal Police (AFP)	• Referrals at the border of specific criminal offences (for example detections of narcotics), persons of interest (for example suspected terrorists), and undeclared excess currency. • Civil maritime surveillance and response activities for people smuggling and remote area logistic support. • Provision of intelligence information and analytical support. • Border enforcement training. • Provision of dogs for Asia-Pacific Economic Cooperation. • Provision of forensic services. • Contribution to joint operations where appropriate.
Attorney-General's Department	• Administration of the import provisions of the *Copyright Act 1968*. • Provision of expertise on aspects of the National Drug Strategy.
Australian Quarantine and Inspection Service (AQIS)	• Access to the Integrated Cargo System to identify goods of interest to AQIS and provide a single business window for industry. • Provision of export data related to permits issued by AQIS. • Sharing of relevant intelligence data.
Australian Agency for International Development	• Technical assistance and capacity building focused on Customs modernisation in countries such as Papua New Guinea (under

Agency	Areas of Co-operation
(AusAID)	the Enhanced Cooperation Program) and Solomon Islands (under the Regional Assistance Mission to the Solomon Islands). • Provision of assistance to the Oceania Customs Organisation, and other Pacific regional organisations. • Engagement with Association of Southeast Asian Nations (ASEAN) and Asia-Pacific Economic Cooperation (APEC) members such as Indonesia and Philippines. • Cooperation with AusAID in preparing country strategies as per the White Paper on Australia's overseas aid program.
Department of Foreign Affairs and Trade (DFAT)	• Regulation of the import/export of prohibited goods in relation to United Nations Security Council sanctions. • Assistance with the distribution of 'safe travel' public information materials to Australians departing overseas. • Capacity building support to relevant border agencies in the Asia-Pacific region to improve border control and related management in the region.
Department of Health and Ageing	• Provision of expertise and advice on National Drug Strategy policy for the import and export of substances. • Identification of new substances which may require regulation at the border. • Contribution to the whole-of-government position on licit and illicit drugs. • Regulation of the import and export of certain restricted biological material. • Regulation of the movement of drugs and other substances. • Provision of information under the National Industrial Chemicals Notification and Assessment Scheme.
Department of Industry, Tourism and Resources (DITR)	• Administration of the import provisions of the *Trade Marks Act 1995* and the *Olympic Insignia Protection Act 1987*. • Provision of data use by importers and exporters in industry assistance schemes administered by DITR.

Source: Commonwealth of Australia, 2007[51]

[51] Commonwealth of Australia, above n 47 (accessed on 26 January 2013).

Customs-Right Holders Partnership

In addition to a whole-of-government approach, the Australian Customs also implements the *Customs-to-Business* or *Customs-Right-Holders partnership* approach to help keep its borders free from IPR infringements. This is based on the principle that Customs administration is a bridge between the domestic trading community and the group of international exporters and importers. Hence, it is of paramount interest for the proper functioning of international trade that a sound level of cooperation and understanding exists between the Customs administration and the country's business community.

Australian Customs works closely with IPR holders to identify and seize infringing goods. The *Trade Marks Act 1995* allows the registered owner, or in certain circumstances, the authorised user of a trade mark to lodge a Notice of Objection with the Australian Customs, objecting to the importation of goods which infringe their trade mark. Unless revoked, a Notice of Objection remains in force for a period of four years (effective 23 October 2006) from the date of commencement. A Notice gives Customs the power to detain shipments of suspected infringing goods.

Table 4.3

Intellectual Property Notices of Objection in Force

IPR Issues	2004-5	2005-6	2006-7
Trade marks	173	204	236
Copyright	21	23	31
Olympic insignia protection	1	1	1
Total for all	***195***	***228***	***268***

Source: Commonwealth of Australia, 2007[52]

Part 12 of the *Trade Marks Act 1995* details the circumstances in which the use of a trade mark may, or may not, amount to an infringement. For example, a trade mark is not infringed where the mark in question has been applied to, or in relation to, goods with the consent of the registered owner of the trade mark. However, where the trade mark is applied by, or with the consent of, an overseas owner of the trade mark and the goods are

[52] Ibid.

imported into Australia without the consent of the Australian trade mark owner, this may still represent an infringement.

Interest in the Customs Notice of Objection scheme has continued to grow (Table 6) as more right holders become aware of the importance of protecting their rights at the border. There has been a significant increase since the changes to the *Trade Marks Act 1995* and *Copyright Act 1968* were implemented.

One major initiative under the Customs-Right Holders co-operation scheme is the 'Frontline'. It is a cooperative program between Customs and industry groups involved in international trade and transport. It has been in operation since 1991. The program draws on the knowledge and expertise of people in industry to help prevent illegal activities. Working alongside the trading community, Frontline aims to prevent, among others, drug trafficking and importation or exportation of counterfeit and pirated goods.

Customs-to-Customs Cooperation

Australia has established trade agreements with New Zealand, Singapore, Thailand, the United States of America, Canada and Forum Island Countries. Potential trade partners that we are currently engaged in negotiations with include Chile, China, the Gulf Cooperation Council, Japan, Malaysia and together with New Zealand, the Association of Southeast Asian Nations (ASEAN). As a Member of the international trading community, Australia seems to have been making every effort to develop closer working relationship with other countries to facilitate exchange of intelligence. To this end, the measures that have been taken include placement of Australian Customs representatives in key geographic locations, implementation of communication and engagement strategies, attendance at law enforcement and Customs conferences and developing information sharing agreements and protocols.

Some of the major events regarding international co-operation that took place in 2007 include (i) seventh Custom-to-Customs bilateral discussion with Hong Kong, and similar discussion with China in April; (ii) Customs representation at the Heads of Intelligence (HINT) meeting in Auckland, New Zealand in March; and (iii) participation in a targeting

and risk assessment workshop at the Asia Pacific Economic Cooperation (APEC) Sub-Committee on Customs Procedures held in Cairns in June.

Apart from information sharing, another major objective of the Customs-to-Customs co-operation is technical assistance for capacity building. Australia is a major development partner both at the WTO and the WCO. Apart from participating in the multilateral efforts, Australian Customs is involved in the capacity building program designed under the Enhanced Cooperation Program and the Regional Assistance Mission to the Solomon Islands. Similar programs are in place for assistance to Oceania Customs Organisation, and members of the Association of South-East Asian Nations (ASEAN) and APEC.

Though there is little empirical evidence that strong IPR leads to transfer of technology and Foreign Direct Investment (FDI), a strong IPR regime is one of the many factors influencing decision of producers and firms to transfer technology or invest in a country, as they are sure to reap the benefits of their investments. It, therefore, is important for Customs authorities in developing countries to be more responsive and improve the quality of our controls to combat the menace. The Agreement requires that all members align their laws on copyrights, patents, trademarks etc. to the TRIPS Agreement and provide ways of enforcing the laws to effectively deal with IPR infringements.

4.6 Impacts of Trade Facilitation Measures on the Role of Customs

Customs officers today follow the policy of the Customs administration to act through intervention and control. They tend to operate in compliance roles, almost exclusively at the country's physical borders. However, looking into the various proposals made, and measures being put in place by different entities at regional and multilateral level, one may assume that the role of customs will take a new form in the near future.

4.6.1 Role of Customs Officers

Client-focused Account Managers

Customs officers will become the primary point of contact for stakeholders in the supply chain and will operate at the 'virtual border' – that is, the earliest point in the supply chain

at which they can become involved.[53] This could be the point of manufacture, port of departure, etc. Their role is to help businesses achieve and retain a preferred status such as AEO, and thereby facilitate trade. Account managers will also be responsible for the fiscal compliance of clients, ensuring correct and timely payments in the periodic payment model.

Risk Analysis/Intelligence of Officers

These officers will drive the risk-oriented approach in Customs. While the risk models are enabled by sophisticated information and communication technology (ICT) tools, officers with highly developed skills in predictive analytics and modelling will be required to own and drive the agency's risk framework.

Physical Inspectors

A reduced number of Customs officers will still be located at the physical border for the purposes of security and control measures. However, the physical border could be located in a different place in the future, such as at the external border of the economic bloc, rather than at the national border.

4.6.2 Technology Shifts

Technology will provide the basis for the seamless interaction of Customs administration both with their clients and with other Customs authorities.[54] Technology is, therefore, the bedrock for international trade. Customs application design will focus on robustness, security and interoperability. Applications will run within a well-governed service oriented architecture (SOA) framework for Customs and traders that provides full interoperability. The applications will operate within sophisticated network architectures designed to ensure resilience through the extensive use of redundancy and robust security protocols.

Supply chain security will be enhanced through the improved use of technology for the tracking and monitoring of goods. The use of radio frequency identification (RFID)

[53] G. McLinden et al (eds), *Border Management Modernization* (World Bank, 2011) 13.

[54] Widdowson, above n 16, 28.

technology will be routine. There will also be widespread adoption of high-tech applications to identify high risk passengers and goods.

In view of the above, the two major issues of concern for the members of the international community as regards the ongoing WTO TF negotiations are:

Special and Differential Treatment

The July Framework Agreement states that S&DT in Trade Facilitation will be broader than the approach applied elsewhere in WTO negotiations, which simply involves shallower commitments and longer implementation periods for developing countries. The July Framework links the extent and timing of commitments to developing countries' implementation capacities. Further, it states that developing countries will not be required to undertake investments beyond their means in pursuit of their obligations. LDCs are asked to take commitments only to the extent they are consistent with their individual development needs and administrative and institutional capacity.

The TRIPS Agreement puts forward minimum standards of intellectual property rights common to all members.[55] Whilst additional commitments or disciplines may be introduced by members, protection of intellectual property rights remains under the tenets of both the National Treatment (Article II) and the most favoured Nation (Article IV) principles. However, and in contrast with other WTO agreements where countries can make different commitments (such as market access); the TRIPS agreement establishes disciplines that all members must comply with devoid of distinctions according to levels of development. For example, in terms of patents, all members are obliged to give the same level of protection to all patented products.

The only form of differential treatment afforded to developing countries is an extended period for the implementation and modification of national legislation to accommodate the totality of the TRIPs agreement.[56] This is however a standard 'transitional' provision

[55] WTO, *Agreement on Trade Related Aspects of Intellectual Property Rights* <http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> Article II, para 1.

[56] Reference to Developing Countries and Least Developed countries appear twice and six times respectively in the whole agreement, all of them in Part VI, Transitional Arrangements.

common across most WTO agreements which may be ill suited to the particular needs and constraints faced in certain developing countries. It implicitly recognises the existence of diverging technical capabilities across countries in implementing agreements but presupposes that countries will be able to tackle these constraints in a fixed amount of time. The heterogeneity in capacity across the developing country grouping suggests that a common time lapse for implementation may be ill-suited and calls for SDT to be contingent on certain observable analytical criteria which delimit that these capacity constraints have been overcome.[57] This principle of graduation should be coherent with a set of analytical criteria that serve to identify the main constraints that countries face.

In recognition of possible constraints in meeting the TRIPs agreement commitments, certain flexibilities were introduced to mitigate negative impacts on health outcomes. These were in the form of 'compulsory licenses' and 'exhaustion of rights' which aim at ensuring that the appropriate balance between the benefits of innovation and the costs of monopoly pricing is achieved. These flexibilities are however available to all signatories and hence do not constitute a form of special and differential treatment (S&DT) although they can be useful to developing countries in certain ways. Their main function is to control monopolist pricing strategies where compulsory licenses grant derogations from patent enforcement whilst exhaustion of rights seeks to reduce price discrimination. The implications of these for developing countries are discussed at greater lengths bellow where particular attention is given to the identification of constraints that these flexibilities aim to provide shelter from.

The rationale for awarding patent protection to any industry derives from the recognition that some processes of innovation are costly and would not be undertaken unless protection is granted. Innovators are awarded patent protection through the conferral of monopolistic powers that aid to cover the research and development (R&D) costs of the process of innovation. However, as in any monopolistic setting, inefficiencies arise via the sub-optimal consumption (supply) of the monopolistic product. Patent protection is hence to act as a balancing tool between the needed incentives for the innovative process and the

[57] Oxfam, 'WTO Patent Rules and Access to medicines: The pressure mounts' (Oxfam Briefing Papers 01, 2001) <http://policy-practice.oxfam.org.uk/publications/wto-patent-rules-and-access-to-medicines-the-pressure-mounts-115074> (accessed on 9 August 2013). The paper makes this point in its key demands to the WTO where they call for 'longer transition period for developing countries before they have to implement TRIPS, based on their attainment of development milestones rather than arbitrary dates.'

inefficiencies generated through monopoly rents. Whilst these are generally mediated through an arbitrary time limited conferral of these monopoly powers, *Deardorff* makes an important case for the limitation of patenting protection geographically. He argues that 'the case for universal patent protection is not a clear one [...] and that the concerns of some developing countries that they will be exploited by patent protection are not without foundation'.[58] *Deardorff's* theoretical model provides an important justification to the case of SDT in the application of TRIPs provisions for patenting pharmaceuticals based on distributional welfare effects. He demonstrates how these skew the benefits towards the producers of products with higher patent protection. The welfare implications are not innocuous given the explicit reference to 'social and economic welfare' in the TRIPs Agreement objectives set out in article 7. However recognition is also awarded to the need to 'balance rights and obligations' referring to the process of knowledge creation and transmission.

The TRIPS Agreement does not explicitly provide special and differential treatment for developing nations in the form of exemptions or more flexible rules.[59] The 20-year patent term required by the TRIPS Agreement, for example, applies to all countries regardless of their stage of development.[60] In addition, the intent of at least some of the negotiating members – the US, in particular- was to impose to common substantive standards for all member states. These states desired to eliminate 'special and differential treatment in TRIPS and instead to provide only increased transitional period for developing and least developed countries'.[61] By and large, this position was successful, and TRIPS does not include the kinds of substantive special and differential treat present in the other covered agreement.[62]

---

[58] Deardorff, 'Welfare effects of global patent protection' (1992) 59 *Economica* 35.

[59] Tshimanga Kongolo, 'The WTO Dispute Settlement Mechanism: TRIPS Rulings and the Developing Countires' (2001) 4(2) *Journal of World Intellectual Property* 257, 260-261.

[60] WTO, above n 55, Article 33.

[61] Judith H. Bello, 'Some Practical Observations About WTO Settlement of Intellectual Property Disputes' (1997) 37 *Virginia Journal of International Law* 357, 364.

[62] Constantine Michalopoulos, 'Special and Differential Treatment of Developing Countries in TRIPS' (TRIPS Issues Paper No. 2, Quaker United Nations Office (QUNO), Geneva and Quaker International Affairs Programme (QIAP), Ottawa, 2003).

The Dispute Settlement Understanding (DSU),[63] however, does provide for special and differential treatment for developing and least developed countries in the context of dispute settlement, including in TRIPS cases. Broadly, the DSU special and differential treatments fall the following categories:

1. Consultation: LDCs and developing countries are provided additional protections under Article 3.12 of the DSU. In addition Article 4.10 and Article 24.2 also underscore similar provisions.
2. Implementation: DSU Article 21.2, 21.7, 21.8 and 24.1 highlight provisions designed to address developing country concerns with implementation. For example, Article 21.2 states that in the context of implementation, '[p]articular attention' be paid 'to matters affecting the interests of developing country Members with respect to measures which have been subject to dispute settlement.'
3. Adjudication: LDCs and developing countries are provided procedural protection to reduce the burden in the adjudicatory process. Article 10 states, when 'examining a complaint against a developing country Member'' panels 'shall accord sufficient time for the developing country Member to prepare and present its argumentation.' These groups of countries are also entitled to request a panellist from a developing country (Article 8.10) and are entitled to legal advice and assistance from the Secretariat (Article 27.2).

Technical Assistance and Capacity-Building (TACB)

Unlike any of the other items on the Doha Round negotiating agenda, the provision of TACB is fully integrated into the Trade Facilitation negotiation process. In all other areas TACB offers are most often comprised of nonbinding pledges from developed countries to make 'best efforts' to ensure that support is forthcoming. A central challenge for LDCs – which should be understood within an era of unprecedented globalisation and technological change – lies in stimulating local innovation, creativity, access to knowledge and technology transfer. As the preamble to the TRIPS Agreement envisages, LDCs require time and flexibilities to build a sound and viable technological base and use the

[63] WTO, *Understanding on rules and procedures governing the settlement of disputes* <https://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm> (accessed 05 March 2012).

IPR system to contribute to cultural, social and economic development.[64] This is one of the central purposes and objectives of the S&DT provisions, such as technical assistance, incentives for technology transfer, and the extended transition period, for LDCs in the TRIPS Agreement.

All of these issues underline the importance – perhaps more than ever before – of high quality, development-oriented, and locally-led technical assistance and capacity building programmes, tailored to meeting the varied and long-term needs of LDCs.[65] They also have significant implications for the ways in which technical assistance for IPR (IPRTA) and capacity building are planned, co-ordinated, designed, delivered, managed and evaluated by the range of international institutions, bilateral donors, NGOs and other providers who are active in this sector.[66] Whilst a large number of providers of IPRTA can be identified, principal among these in terms of scale and coverage are WIPO, the European Patent Office, the European Commission, USAID and Japan.[67]

Most donors and providers of IPRTA to LDCs recognise the importance of building local ownership, reducing duplication of work and inefficient use of resources that can result from poorly planned programmes and insufficient coordination of activities.[68] As shown by the recent discussions in the IPRTA Forum and at WIPO with its Development Agenda, major IPRTA providers are showing renewed interest in examining ways to improve the effectiveness of their efforts and increase collaboration in designing IPRTA and capacity building programs for LDCs. The reality of limited resources in the face of increasing demands is leading to growing acceptance of the need for greater information sharing and dialogue between and among LDCs and providers of IPRTA.

---

[64] WTO, above n 55.

[65] Sylvia Ostry, 'The world trading system: In the fog of uncertainty' (2006) 1(2) *The Review of International Organizations* 38.

[66] K. M. Rahman, S. Hasan and Hasanuzzaman, *Aid for Trade: Needs assessment from Bangladesh perspective* (Centre for Policy Dialogue, 2008) 15.

[67] Thorsten Staake, Frédéric Thiesse and Elgar Fleisch, 'Business strategies in the counterfeit market' (2012) 65(5) *Journal of Business Research* 117.

[68] WIPO, 'Existing Needs for Training and for Development of Enforcement Strategies' (10 September 2002) <www.wipo.int/edocs/mdocs/.../en/wipo.../wipo_cme_2_rev.doc> 62.

4.7 Conclusion

In his speech to the UNCTAD Trade and Development Board on 22 September 2014, the WTO Director General *Roberto Azevêdo* said that the Bali package that delivered big gains for WTO Members 'is now at risk'. He said, 'at present, the future is uncertain', adding that if the impasse is not solved 'many areas of our work may suffer a freezing effect, including the areas of greatest interest to developing countries, such as agriculture'.[69]

The impasse is actually the failure by WTO Members to adopt, in July 2014, a Protocol of Amendment that would have incorporated the TFA into the WTO's legal framework, which adoption is a necessary step in the ratification process. This was because India insisted on seeing more progress toward a 'permanent solution' on food stockholding and suggested linking the two processes. India's statement during the WTO General Council Meeting of 24-25 July 2014 included, among other comments, the following:

> This is important so that the millions of farmers and the poor families who depend on domestic food stocks do not have to live in constant fear. To jeopardise the food security of millions at the altar of a mere anomaly in the rules is unacceptable.
>
> India is of the view that the TFA must be implemented only as part of a single undertaking including the permanent solution on food security.
>
> In order to fully understand and address the concerns of Members on the TF Agreement, my delegation is of the view that the adoption of the TF Protocol be postponed till a permanent solution on public stockholding for food security is found.[70]

These recent developments which, to some extent, have led to questions about the WTO's capability to deliver on multilateral negotiations, cannot but inspire those interested in trade facilitation to continue looking for (or expounding) other feasible international regulations for trade facilitation. In this regard, it will not be unrealistic to assume that

[69] WTO, <http://wto.org/english/news_e/spra_e/spra31_e.htm> (accessed 30 October 2014).

[70] Government of India, 'Meeting of the General Council WTO Geneva 24-25 July 2014: Statement by India' (Press Information Bureau, Government of India, Ministry of Commerce & Industry, 2014) <http://pib.nic.in/newsite/PrintRelease.aspx?relid=107533> (accessed on 10 August 2014).

even if the TFA were to fail to come into force, the RKC would more or less make a perfect substitute.

In addition to the argument of considerable similarity between the TFA provisions and the RKC's standards and recommended practices, it should be noted that, in principle, there is a possibility to update the RKC to cater for some trade facilitation aspects that are currently beyond its scope. However, this possibility of updating the RKC is negatively affected by the recent and ongoing proliferation of instruments and tools under the auspices of the WCO. Whereas the discussion of the advantages and disadvantages of the said proliferation is beyond the scope of this paper, we cannot fail to note that it leads to the fragmentation of customs-related provisions, creates redundancies, and ultimately, affects the implementation.

Besides, LDCs face special challenges in building a sound and viable technological base and modernizing their national IPR and innovation infrastructure. Designing the right policy framework and ensuring adequate capacity within a range of institutions in LDCs are long-term, difficult tasks. But they are essential for implementing the objectives, principles, rights and obligations of the TRIPS Agreement in a manner which supports social and economic development goals in LDCs – rather than a narrow approach focused only on compliance with its provisions.

The overall objective of this Chapter has been to investigate the RKC from the perspective of enhancing the policing role of Customs in regards to border enforcement of IPR laws. Over time and with the change in international legal instruments, Customs in such countries like Australia has been continuing to bring changes in its enforcement mechanisms and procedures. However, the reality may not be the same for less developed economies. Countries still stagnated in the developing and least developed categories face significant obstacles in their efforts to facilitate their trading environment to a meaningful level. As discussed, these include not only the compliance with the RKC or TFA, but also, to a large extent, availability of technical assistance and capacity building initiative by the international community. Understandably, with economic growth facing challenges to foster, these countries experience instability and insecurity in other areas, such as, social security, environmental sustainability, health and education, and moral and cultural values. Hence, it is important to assess the socio-economic impacts of IP infringements in

countries with differing socio-environmental context and economic growth level. A detailed analysis on this issue is presented in Chapter 5 with a view to providing a better understanding on the nexus between border infringement of IPRs and its socio-economic impacts in countries at different stages of economic development.

CHAPTER 5

SOCIO-ECONOMIC IMPACTS OF IPR INFRINGEMENT

There is considerable debate on the scope and magnitude of the impacts of intellectual property right (IPR) violations, as well as the mechanisms underpinning them. There are relatively few estimates of these impacts, and the robustness of these available estimates is debatable. Moreover, the literature is uneven in terms of how much attention has been paid to the different potential impacts of counterfeiting and piracy. For instance, much of the existing literature focuses on the direct impact of counterfeiting and piracy on the sales and profits of the right-holders. [1]

There is a major distinction between methodologies that aim to estimate the size of counterfeiting and piracy, and methodologies that aim to estimate their effects. The outputs of the former are usually inputs for the latter. The frontier between these two aspects is represented by lost revenues. It can be considered as a measure of the size of counterfeiting and piracy, but it is also a first-order effect of it. There is also a clear imbalance in that many studies draw on already existing estimates of the size in order to say something about the effects, where the latter seems a less demanding process than estimating the size itself.[2]

This chapter discusses the general impacts of IPR infringements on the society. Discussion is also made on how different IPR infringements are responded to by countries at varying development stage.

5.1 An Overview of the Impacts of IPR Infringements

Counterfeiters and pirates target products where profit margins are high, taking into account the risks of detection, the potential penalties, the size of the markets that could be exploited and the technological and logistical challenges in producing and distributing products. On the demand side, consumers either: (i) unwittingly buy counterfeit or pirated

[1] Keith E. Maskus, 'The Economics of Global Intellectual Property and Economic development: A Survey' in P.K. Yu (ed), *Intellectual Property and Information Wealth: Issues and Practices in the Digital Age* (Praeger Publishers, 2007) vol 4, 159.

[2] Keith E. Maskus, *Intellectual Property Rights in the Global Economy* (Institute for International Economics, 2000) 32.

products thinking that they have purchased genuine items, or (ii) knowingly buy lower-priced counterfeit or pirated items. The degree to which consumers knowingly buy counterfeit or pirated products depends on the characteristics of the products concerned. For example, consumers who would knowingly purchase counterfeit garments without any hesitation may have no interest in purchasing counterfeit pharmaceutical products.

Counterfeiting and piracy are not victimless crimes. The scope of products has broadened from luxury watches and designer clothing to include items which impact directly on personal health and safety including food, pharmaceutical products and automotive replacement parts. The infringing products are being produced and consumed in virtually all economies, with Asia emerging as the single largest producing region. Enforcement authorities have stepped up efforts to intercept counterfeit items in international commerce, but counterfeiters and pirates have the upper hand in light of the enormous volume of goods being legitimately traded and the ease with which counterfeit and pirated items can be concealed. The difficulty in breaking into established supply chains has helped to limit counterfeiting and piracy, but there are signs that counterfeiters and pirates are successfully expanding operations. The Internet has provided an important new platform for increasing sales. Criminal networks and organised crime are playing a major role in counterfeiting and piracy operations; they are attracted to the relatively high profits to be made and the relatively light penalties that could be applied if their operations were detected.

Designing an effective and appropriate system of intellectual property rights (IPRs) is complex for any country. The mechanisms by which IPRs operate vary across functional areas (patents, trademarks, copyrights, *sui generis* forms of protection, and rules against disclosure of trade secrets) and their importance differs across sectors. Indeed, as discussed below, the nature and purposes of these mechanisms are distinctive although they share certain fundamental characteristics bringing them under the IPRs umbrella. The strength of IPRs depends on demand characteristics, market structure, and other forms of business and competition regulation. However, the essential economic processes may be described in simple terms.

Because intellectual property is based on information, it bears traits of a public good in two separate but important ways. First, it is *non-rival* because one person’s use of it does not

diminish another's use.[3] Consider a new means of production, a composition of music, a brand name, or a computer program, all of which may be used or enjoyed by multiple individuals. In this context, it is optimal in a static sense to permit wide access to use of intellectual property. Indeed, the public interest is rather extreme in that the marginal cost of providing another blueprint, diskette, or videotape to an additional user may be low or zero.

Unlike the case of physical property, a multiplicity of users does not raise congestion costs in the exploitation of intellectual property. The second characteristic is that intellectual property may be *non-excludable* through private means.[4] That is, it may not be possible to prevent others from using the information without authorisation. If an intellectual effort is potentially valuable but easily copied or used by others, there will be free riding by second comers. In turn, there may be no incentive to incur the costs of creating it. Society has a dynamic interest in avoiding this outcome by providing defined property rights in information. In some cases private mechanisms, such as market lead times, difficulty in copying or imitating particular technologies, and marketing strategies, provide natural incentives to create and exploit information. Accordingly, the strength of this dynamic argument for protection depends on circumstances of market structure and technological complexity.

The fundamental trade off in setting IPRs is inescapable. On the one hand, static efficiency requires providing wide access to users at marginal social cost, which may be quite low. On the other hand, dynamic efficiency requires ensuring incentives to invest in new information for which social value exceeds development costs.[5] These are both legitimate public goals and there is a clear conflict between them. Economists often state this problem by noting that IPRs operate on the mixture of these two market distortions.

[3] Nathan Associates Inc., 'Holistic Modernization of the International Trade Transaction Process' (2009) <http://clearviewtrade.com/blog/download/nathan-associates-holistic-modernization-of-the-international-trade-transactions-process/> (accessed on 13 April 2012).

[4] Hal Martin, 'Enforcing Intellectual Property Rights: Estimating the Optimal Level of Enforcing Patent Protection' (2010) 19 *Issues in Political Economy* 119.

[5] World Customs Organization, 'Counterfeiting and Piracy: Crime of the 21st Century?' (2007) <www.wcoomd.org> (accessed on 20 January 2013).

Excessively weak property rights satisfy the static goal but suffer the dynamic distortion of insufficient incentives to create intellectual property.[6] The economy suffers slower growth, more limited culture, and lower product quality. Excessively strong IPRs favour the dynamic goal but generate the static distortion of insufficient access. The economy suffers from inadequate dissemination of new information. A frequently used alternative expression of this trade-off is that IPRs generate monopoly positions that reduce current consumer welfare in return for providing adequate payoffs to innovation, which then raises future consumer welfare.[7]

This simple theory shows the need for public intervention to stimulate invention in cases where *ex-post* competition would reduce market price to the competitive level and deter the *ex-ante* costly investment. In principle, society would provide support that is just sufficient to induce the introduction of all innovations for which optimal *ex-post* consumer surplus exceeds research and development (R&D) costs. Intellectual property rights are incapable of operating so precisely and are, therefore, second-best remedies for the underlying market distortions.

Accordingly, protection might be too weak, resulting in foregone innovation, or too strong, generating surplus transfers to inventors and sacrificing available benefits from consumer access. Note also that a poorly struck bargain could slow down economic growth to the extent that access to protected technologies is required to induce incremental innovations and artistic creation, which is how the bulk of innovation occurs.

Within this fundamental problem of dual distortions lie numerous economic issues of considerable interest and concern. First, rights to own information impose other costs on society. For example, rent-seeking for IPRs may be a serious problem because the property right is being invented or discovered anew. There is no ownership until the creation is made.

---

[6] OECD, 'The Economic Impact of Counterfeiting and Piracy' (2007) <http://www.oecd.org/industry/ind/38707619.pdf> (accessed on 11 February 2014).

[7] This description is most apt for patents, which support exclusivity over the use of an idea. Patents are the subject of the overwhelming majority of theoretical studies by economists. It is somewhat less appropriate for copyrights, which generate ownership of a particular expression, and trademarks, which protect the use of a distinctive mark or symbol.

Thus, a strong IPRs system may cause wasteful duplication of investment in R&D (that is, patent races) plus costly effort to assert ownership rights. Further, technical and judicial actions to enforce rights through excluding free riders may be costly. Finally, the costs of transferring rights to information can be high if there is uncertainty about the value of the information, about monitoring its use by those who buy or license it, or if there are other contracting costs. This problem leads to serious issues of antitrust policy in determining 'fair' or 'efficient' means of transferring intellectual property rights.[8] These costs should be taken into account in assessing IPRs systems.

So also should external benefits that emerge from invention. The social value of information may be greater than the private market revenues it generates, because there may be market failures in R&D programs and creation of intellectual property. For example, the social value of an invention would exceed private revenues if there were positive consumption externalities, such as network gains from computer systems, software standards, or inoculations. Similarly, there is surplus social value whenever there are cost reductions that spill over to other uses without market compensation.[9] Examples here might include accounting systems and weather satellites. Note the implication that if such spill-overs were easier under weak patents, an economy optimally could choose to provide limited protection. Risk aversion in undertaking high-cost R&D programs also could result in deficient private incentives to create the socially optimal amount of innovation, while such deficiencies would also sacrifice potential scale economies in research activities.

In essence, the main goal of an intellectual property system should be to create economic incentives that maximise the discounted present value of the difference between the social benefits and social costs of information creation, including the costs of administering the system. The net effects of IPRs on social values versus private values are unclear. Much depends on demand parameters, the cost-reducing effects of process innovations, and market structures. Evidence suggests that there are large spill over gains from major inventions, while IPRs on smaller inventions generally do not create significant monopoly rents. Thus, there is likely a presumption in favour of strong IPRs in most societies on the

[8] S. Kanwar and R.E. Evenson, 'Does intellectual property protection spur technological change?' (2003) 55 *Oxford Economic Papers* 239.

[9] Shayerah Ilias and Ian F Fergusson, *Intellectual Property Rights and International Trade* (Nova Publishers, 2008) 96.

grounds that private markets are inadequate to induce socially optimal information creation.

Setting an optimal policy for promoting invention and innovation requires accounting for numerous market characteristics in each product or artistic area. These characteristics include prospective demand and growth in demand, potential spill overs, R&D costs and the costs of duplicative races, potential impacts on market structure, and competitive aspects in the economy. Many of these characteristics are highly uncertain at the time decisions on providing IPRs are made, suggesting that finely tuned policies are unworkable. If it were possible to do so precisely, an economy could develop a system of IPRs that would vary in the scope and length of protection with each potential new invention or creation. Further, there would be specific limits on protection due to the costs of providing and enforcing IPRs. But this task is impossible due to uncertainty and is itself subject to severe government failure associated with poor choices and rent-seeking.

An alternative policy regime would call for the government to retain a monopoly over the development of technology and product creation, funding all development itself. It could then provide wide dissemination for use at low cost. As economists note, however, it is unlikely that governments would react efficiently to changing market preferences and technical information. Monopolised research in the former Soviet Union and China, for example, largely failed to produce technologies and products that could be moved into commercial streams.[10]

Between these extremes countries might pursue systems that mix incentives for private information creation through intellectual property rights with public supports of various kinds. In the United States, for example, research in the defence and aerospace industries is largely undertaken in, or funded by, public agencies. Considerable public research subventions are made to university researchers working on problems and developing applied solutions that could find their way into private markets. Governments also subsidize artistic creation, libraries, and museums.

[10] Keith E. Maskus, 'The International Regulation of Intellectual Property' (1998) 134(2) *Weltwirtschaftliches Archiv* 190.

While the issue is complex, it is fair to say that public provision of new goods and technologies through government procurement and nationalised research programs has not proven effective in stimulating and disseminating knowledge. Market-based approaches, in which governments set rules for protecting the fruits of invention but ensure competition in the creative stages, seem to be more flexible. Intellectual property rights are an obvious solution to this problem.

In setting rules governing intellectual property rights, societies must strike a balance between the needs of inventors to control exploitation of their new information and the needs of users, including consumers and potential competitors working to develop follow-on inventions and innovations. Stated another way, the system should find an appropriate balance between creating and disseminating intellectual property. If the system creates new innovations that are not put widely into use it may be less beneficial than a regime that places less emphasis on creation but assures broad dissemination of new ideas and creative works.[11] To put it in different terms, many patents are never placed into commercial use because their holders do not see them as commercially viable. Thus, commercialisation incentives are as important as incentives for creation and invention.

In this context, the system should allow sufficiently market-based incentives for creation, should try to minimise the costs of innovative activity, and should provide for timely disclosure of innovation or creation and reasonable fair use with economic and social goals in mind. Moreover, it is important for IPRs to interact coherently with other regulatory or economic systems, including antitrust policy, trade and foreign direct investment (FDI) policies affecting the values of IPRs, and general technology development strategies. Such strategies include industrial policies, such as R&D subsidies, R&D joint ventures, and public grants to universities and agencies for basic R&D, and are influenced by how IPRs are granted and protected.

Technology-importing countries may prefer weak IPRs as a form of strategic trade policy. In addition to the discipline on monopoly pricing, weak patents, trade secrets, trademarks, and copyrights allow uncompensated imitation and copying of foreign products and

[11] Again, this is essentially a utilitarian statement. Different societies may place different values on creation and novelty *per se* than they do on social use and commonality.

technologies. Thus, limited IPRs may provide an inexpensive means of technology transfer, to the extent that imitative and adaptive capabilities are effective.[12] International technology spill overs through uncompensated imitation have long been considered an important justification for refusing to grant patents.

Thus, countries that import goods and technologies that may be subject to IPRs coverage count several costs of protection, including higher prices for imports, potential competitive abuses in the exploitation of IPRs, employment losses in imitative and copying industries, and restricted access to international technologies.

However, greater IPRs protection in developing countries generates domestic benefits as well. One gain would be more domestic innovation, which likely would be better suited to local needs than would foreign innovation. The prospects for such innovation depend, among other things, on local market size and domestic technological capacities. Such benefits seem particularly important through the exercise of trademarks, because product development reacts elastically to such protection in developing countries.[13] Further benefits stem from the fact that stronger IPRs expand incentives for trade and inward FDI and reduce costs of writing and monitoring contracts for technology licenses.[14]

Intellectual property rights are national in scope, permitting considerable differences across nations in their protection regimes. International variations in IPRs have been the subject of trade conflict for a long time. For example, the first US Copyright Act, adopted by the initial American congress, actively sought to encourage the development of the publishing industry by awarding rights to print, reprint, publish, and sell literary works only to domestic citizens and residents. Foreigners were excluded from attaining copyrights and the law explicitly permitted parallel importation of works copyrighted abroad. In consequence, American publishers were able to publish and sell foreign literary creations cheaply, which attracted sharp criticism, especially from British authors. Throughout several revisions of the law in the 19th century, discrimination against foreign authors and publishers remained central to US copyright law, as it did in many major countries. Only

[12] Maskus, above n 1, 163.

[13] Maskus, above n 10, 173.

[14] Keith E. Maskus, 'Intellectual Property Rights and Foreign Direct Investment' (Policy Discussion Paper No. 0022, Centre for International Economic Studies, University of Adelaide, 2000) 7.

with the passage of the International Copyright Act of 1891 did the US government recognise equal treatment for foreigners, and then only for countries offering reciprocal treatment to American authors. This change in the law arose because of both pressures from foreign governments and, more importantly, growing interests on the part of US authors and publishers to receive protection abroad. Even so, the new law imposed discriminatory requirements on foreigners and remained explicitly protectionist.[15] Only with American accession to the Berne Convention in 1989 did all vestiges of such discrimination in the publishing industry disappear.

The history of US copyright law demonstrates convincingly that countries that are substantial net importers of products and technologies, which potentially are subject to IPRs protection, consider weak protection to be a form of infant-industry support.[16] To the extent that the losing interests from weak protection are foreign, they command little weight in the policy framework. Rather, the creation of indigenous firms that develop and produce items that require security from piracy has been the traditional spur toward stronger IPRs in the past. It is interesting to note one important and substantive potential difference between infant-industry trade protection and IPRs, however. Trade protection tends to create inefficient industries that act as a block to future trade liberalisation. To the degree that weak IPRs induce the development of innovative firms, they generate a future constituency for systemic reform.

The copyright story also indicates that weak IPRs are viewed as a means for achieving non-economic objectives, such as the growth or maintenance of domestic cultural industries. The most prevalent of such objectives in the global economy is the preservation of public health through limiting costs of procuring medicines, simply by virtue of not patenting them. Thus, many developed nations, including Italy and Japan, did not provide

[15] Despite the non-discrimination written into this law, it still imposed difficult formalities on foreign publishers, such as requirements for copyright notice, registration, and deposit of works, with which foreigners found it difficult to comply. Moreover, it added the so-called 'manufacturing clause', which mandated that any printed book or journal in the English language had to be printed from type set in the United States, and printed and bound in the United States, in order to receive copyright protection. The manufacturing clause, which was the subject of an adverse GATT ruling, remained a part of US law until the revision of the Copyright Act in 1976.

[16] Carloa M. Morrea, *Intellectual Property Rights, the WTO and Developing Countries: The TRIPS Agreement and Policy Options* (Zed Books, Third World Network, 2000) 76.

patents for pharmaceutical products until the late 1970s, while Canada only removed its compulsory licensing requirements in patented drugs in 1993.

Indeed, significant controversies persist over differences in IPRs among developed countries. For example, the United States remained dissatisfied with aspects of the Japanese patent system until its recent reform, claiming that it encouraged excessive filing of narrow patent claims and discouraged patenting by foreign firms.[17] The United States and the European Union have moved toward patenting software with demonstrated industrial utility, but they differ considerably in their rules concerning acceptable decompilation of computer programs for purposes of reverse engineering. Negotiations continue over the scope of protection for geographic indications, with the United States preferring less extensive and protective standards than the EU. Developed countries also differ markedly in their treatment of various aspects of copyrights.[18]

In the world economy today, however, the largest differences in intellectual property protection occur along North-South lines.[19] From the standpoint of information developers in the innovative countries of the North, there are several primary shortcomings in the regimes of many developing countries. For example, inadequate enforcement of copyrights and trademarks allows extensive copying of entertainment and software products and unauthorised use or misrepresentation of well-known trademarks.

Second, pharmaceutical and chemical products have generally been excluded from patent protection. Similarly, the absence of patent protection for biotechnological inventions and patents or *sui generis* rights for plant varieties has been controversial. Another concern focuses on the practice, albeit rare, of issuing compulsory licenses with inadequate compensation to firms that are perceived to be exercising their patent insufficiently to achieve desired consumer benefits or technology transfer. Also problematic is the often weak or poorly defined system of rules protecting trade secrets.

---

[17] K.E. Maskus et al, *The cost of compliance with product standards for firms in developing countries: An econometric study* (World Bank, Development Research Group, Trade Team, 2005), 63.

[18] Ibid.

[19] Kanwar and Evenson, above n 8, 249.

5.2 Structures and Objectives of IPRs

It is inaccurate to think of IPRs as mechanisms for creating monopolies. Intellectual property rights define the extent to which their owners may exclude others from activities that infringe or damage the property. Thus, IPRs set out and protect the boundaries of legal means of competition among firms seeking to exploit the value of creative assets. Efforts to extend the rights beyond these boundaries are denied, in principle. In this context, it is more fruitful to conceive of IPRs as rules regulating the terms of static and dynamic competition, rather than mechanisms for creating legal monopolies. While IPRs do create market power, the impact on competition varies as widely across products, technologies, and countries as it does across the form of rights granted and the scope of protection. Indeed, the strength of the protection depends not only on the scope of the rights granted, but also on the ability of competitors to develop non-infringing products and technologies and the ability of consumers to substitute among supply sources.

5.2.1 Patents

A patent provides its owner the right to exclude all others from making, selling, importing, or using the product or process named in the patent without authorisation for a fixed period of time. In principle it is the most powerful instrument in the IPRs system because it provides exclusive rights to the physical representation, in the forms of goods, blueprints, formulas, and designs, of ideas with industrial applicability. Because they protect technologies and products to which follower countries wish to have access, they are also among the most controversial forms of intellectual property rights.[20] This is particularly true in key sectors where the public interest may call for wide dissemination at moderate prices.

Legal and Economic Principles

Patents may be awarded in any area of technology to any new and useful process, product, composition of matter, and, in the United States, ornamental designs for products. However, some subject matter may be excluded from patentability for purposes of preserving morality, national security, and public health. In most systems patents also are

[20] J. Lanjow and M. Schankerman, 'Characteristics of Patent Litigation: A Window on Competition' (2001) 32(1) *Rand Journal of Economics* 137.

not awarded for fundamental scientific discoveries flowing from the basic physical laws of nature, including mathematical algorithms. Under the nearly universal 'first-to-file' rule, patents are granted to applicants who first submit the appropriate documents. The United States is an exception, awarding patents to inventors who can document that they were the first to invent the product or technology under a 'first-to-invent' rule.[21]

For an invention to be patentable it must meet three criteria: it must be novel (that is, previously unknown), it must contain an inventive step (that is, a step that is non-obvious to one skilled in the area of technology it represents), and it must be useful or have industrial applicability. Novelty and non-obviousness are important aspects of this set, for they set the technical bar that patent examiners must certify has been met in order to award protection. In General there are three types of patents for which an inventor may apply, though not all countries recognise all three forms. First, *invention patents* (or simply patents) require a significant degree of non-obviousness, meaning that they embody discrete advances in technology. They receive the longest term of protection, with the global standard being twenty years under the TRIPS Agreement. Second, *utility models* are awarded to mechanical inventions with less stringent non-obviousness standards. These inventions, which tend to be incremental improvements in existing products and technologies, embody less technological progress and receive protection of shorter duration. Third, *industrial designs* protect the aesthetic or ornamental aspects, such as shape, pattern, or colour, of a useful commercial article. The design must be associated with the industrial article itself. Designs are protected from unauthorised copying or imitation for a prescribed period, with a minimum period of ten years required by TRIPS.[22]

Though patents are provided for a fixed length of time, the breadth or scope of the patent may vary. Inventors make claims about the protectable novelty of their inventions but examiners may narrow the claim or reject it. Patent breadth is provided as a technical matter; examiners do not try to consider economic efficiency in patent grants. While the claims recognised in a patent grant establish the literal terms of protected subject matter, patent scope may be complemented by a legal 'doctrine of equivalents'. This doctrine

[21] Richard Jensen and Marie Thursby, 'Patent Races, Product Standards and International Standards' (1996) 37 *International Economic Review* 23.

[22] WTO, *Agreement on Trade Related Aspects of Intellectual Property Rights* <http://www.wto.org/english/docs_e/legal_e/27-trips.pdf> (accessed on 12 December 2012).

permits patent owners to litigate against competing products and technologies that may be shown to rely on techniques that are essentially equivalent to those in the patent grant. The scope of this doctrine may be narrow or broad, depending on national legislation. In economic terms, whether a patent should cover narrow claims over a long life or broad claims for a short time depends on expected market competition and the likelihood of spill over effects. These considerations argue for structuring patents to meet specific conditions of each application, which is impractical in legal terms. Some economists mention also the height of patent protection, which refers to the power of a particular grant to permit its recipient to limit or control development of follow-on technologies.

Four arguments may be put forward to justify the award of market power through patent grants.[23] First, patents provide an incentive to undertake the research effort and costs required to invent new technologies and products and bring them to market. Thus, patents are a primary solution to the appropriateness problem, discussed earlier, in the area of industrial invention and innovation. Note that the incentives must be sufficient not only to induce invention but also to encourage commercialisation. A patent that is not 'worked' through production or sales, even if it were commercially viable to do so, locks up an area of technology in return for little gain to consumers. In consequence, some countries include working requirements, within particular time periods, for patent grants to be sustained.[24] An important variant of the commercialisation-inducement theory of patents is that patents may reduce transaction costs involved in licensing, resulting in broader sharing of new information.

A second argument is that patents serve to expand the public stock of technical knowledge. It has long been recognised that in return for creating market exclusivity through a patent, society requires some compensation. For this reason, patents bear a disclosure requirement, in which the technical aspects of patents are made known and others are free to use the information to develop new inventions that do not violate the patent claim.

[23] Robert Mazzoleni and Richard R. Nelson, 'The Benefits and Costs of Strong Patent Protection: A Contribution to the Current Debate' (1998) 27(3) *Research Policy* 273-384.

[24] Domestic production requirements may be effectively equivalent to a trade restraint or an investment mandate, pointing out the intricate interplay between IPRs and commercial policy.

Note that the narrower the claim, the easier it is to invent around the patent. Similarly, the sooner the patent application is laid open for inspection by the public, the more rapidly the technical information it contains becomes known. In this sense, patents may be structured to be dynamically pro-competitive even if they are statically anti-competitive. Indeed, advocates of strong patent rights believe that they create significant competition with long run consumer benefits.

A third justification is that the awarding of market power through patent grants may facilitate the establishment of markets for developing and disseminating knowledge.[25] Absent exclusive rights to new information, these markets themselves might fail to develop, an observation that is consistent with the practical situation in some developing countries, as discussed later in the volume.

A final argument is that well-recognised patent claims encourage the orderly development of follow-on innovation, much like prospecting claims for mineral deposits.[26] In this view, ownership of a broad patent on an initial invention supports fruitful development of related innovation by the owner or its licensees. Without such rights, there may be wasteful duplication of R&D targeted on applications of the controlling technology. This justification for awarding monopoly rights on a technology that permits control of subsequent exploratory research is controversial, even within leading technological nations such as the United States.

It is evident that the market power associated with patents may impose social costs even as it encourages invention and commercialisation. Accordingly, societies place limits on the power of patent grants. As already noted, patents are limited in duration and breadth of the claims awarded. They carry disclosure requirements and, in many nations, must be worked in order to sustain protection. These limitations vary across countries and, as will be discussed in later chapters, may be selected to affect the competitive conditions associated with the patent regime. Moreover, the potential for abusing the market power inherent in patent grants is recognised in national competition policies. Attempts to extend protection beyond the patent grant are considered anticompetitive and may be subject to

[25] Maskus, above n 1, 69.

[26] Ibid 72.

antimonopoly remedies, including orders to cease the practice, compulsory licenses to competing firms of key products or technologies, and even revocation of patents. Some examples of potential abuses include horizontal restraints on trade associated with patent licensing, tied sales that extend the patent to an unpatented product, exclusive grant-back conditions in technology contracts, and conditions preventing challenges to patent validity.

The Effectiveness of Patents

Many observers question the need for strong patent systems in achieving their stated goals. An obvious question is whether patents are necessary to stimulate investment in invention and commercialisation. Competitive rivalry in technology development may spur invention naturally. Further, market and technical barriers to imitation may allow inventive firms to charge a price above current production costs for a sufficiently long period to recover investment costs and compensate for risks taken.

Thus, the private ability of firms to appropriate the economic returns to invention and innovation depends on several characteristics. Among these are the degree of market imperfection, the technical ease of imitation, the pace of information diffusion and firms' abilities to control it, and market demand parameters. In cases where innovation and development would happen without patent protection, its provision is redundant and potentially costly. In practice, however, it is difficult to identify such cases since inventors generally do file for patents. It may not be possible to determine whether the promise of a patent was the required stimulus to invention or its registration is an *ex-post* means of establishing claims to an invention that would have emerged anyway.

There is suggestive evidence on some of these questions. In the United States, information about new products and processes becomes available to a firm's competitors (including foreign competitors) fairly rapidly, generally in a one-to-two year period.[27] The information is transferred through shifts of personnel, technical meetings, communications with suppliers and customers, reverse engineering, and the study of patent applications. Thus, the ability of firms to retain technological advantages in-house without protection is limited.

[27] Richard Milchior, 'Do IP owners have too much power?' (2013) 8(9) *Journal of Intellectual Property Law & Practice* 735.

However, the competitor's step from learning the information to imitating the new product or process may be difficult. Imitation takes time and requires investment costs, including R&D, marketing, investment in production facilities and start-up costs, and, if necessary, the need to invent around the original patent. In the United States, these costs appear to be substantial in many industries. In a sample of firms in four industries, average imitation costs totalled some 65 percent of innovation costs and imitation time equalled about 70 percent of innovation time.[28] These costs depended significantly on market structure. Further, except in the drugs industry, patents had small impacts on imitation costs and patented innovations were relatively easily imitated, generally within four years of initial introduction.

A study sampled 100 firms in 12 US manufacturing industries regarding their views of whether patents are important in making their decisions about investment in innovation.[29] His results suggested that only in the pharmaceutical and chemical industries were patents considered essential, in the sense that more than 30 percent of their inventions would not have been developed in the absence of potential protection. In these sectors, fixed costs of R&D are high and imitation is fairly easy. In three industries (petroleum, machinery, and fabricated metal products) patents were seen as important in the development of between 10 and 20 percent of inventions, while in the other seven industries patents were viewed as unimportant or only marginally significant in inducing R&D.

Evidence suggests that the elasticity of invention with respect to patents is rather small, except in certain industries. However, these surveys are rather dated. New technologies have emerged that find patent protection important, including biotechnology and plant genetics. Moreover, inventor attitudes toward the importance of patents are surely endogenous to the strength of the system. At the international level, the general weakness of the global patent system and the ease of technological spill overs could have contributed to the view of patents as unimportant. If so, stronger protection could alter this view and potentially raise inventive activity and economic growth. Further, there may be dynamic linkages or spill-overs between product generations that would be enhanced by stronger patent regimes, causing firms to view patents as more significant over time.

[28] Maskus, above n 1, 194.

[29] Ibid 196.

A second question is whether patents are the least-cost means of stimulating invention. Patents may be a crude means of compensating inventors, resulting in inadequate returns if protection is weak or excessive returns if protection is so strong as to transfer, to inventors, revenues above costs of investment. This latter outcome often happens, at times spectacularly. It is evident that the fixed-term patent structure is ill designed to effect an optimal dynamic resource allocation. Another study noted that it is possible in principle to design lump-sum transfers from consumers to inventors that could stimulate the same investments in innovation without suffering the price distortions of patent grants.[30]

This argument is a variant of the case for using tax-cum-subsidy schemes over tariffs and quotas to promote certain social objectives. From a practical standpoint it suffers the same shortcomings, including the difficulty of making such transfers efficiently and political resistance to cash transfers. Further, it would be practically impossible to compute the required surplus transfer *ex ante,* given the uncertain nature of technology development. As noted earlier, the third alternative of government provision of R&D is also unwieldy and ineffective. Thus, for all its imperfections the patent system is likely the most efficient system for incentivising inventive efforts, though this hypothesis essentially cannot be tested.

There is little systematic evidence that patent disclosure requirements enhance the dissemination of technical information, though Mansfield mentions the importance of this channel in his 1986 survey. The more significant factor is that the patent system may provide the necessary incentive for firms to undertake the risky, long-term R&D that leads to major technological breakthroughs, such as copying technologies, computers, and semiconductors. Around these inventions grow whole industries that use their technologies, improve on them, or develop residual applications. The social gains to large technological advances can far exceed private returns because their associated spill over benefits have a substantial positive impact on growth, a point on which there is virtually no doubt. While there is little empirical evidence on the role of patents in this process, largely due to the difficulty of constructing the appropriate counterfactual cases to study, practitioners suggest that patent protection plays an important role.

[30] Ibid.

5.2.2 Copyrights

Copyrights protect the rights of creators of literary and artistic works to communicate, display, or perform those works in some medium, plus the rights to make and sell copies. Copyright laws protect the expression of an idea -- its arrangement and presentation in words, musical notes, dance steps, colours, and so on -- rather than the idea itself. By tradition, literary and artistic ideas are without industrial applicability, which renders them different from patentable inventions, though this distinction has been blurred by recent technological developments as will be discussed later. Thus, the idea to render a painting of a mountain cannot be protected from others who also wish to paint it. But the particular rendition by one artist is protected from being copied, either literally or so closely as to constitute 'slavish copying'.

To receive a copyright, the item must be a demonstrably original work but there is no need for novelty in the underlying idea. The particular expression must be fixed in some medium, such as a book, recording, electronic broadcast, software, or even electronic mail. It is generally not necessary to undergo registration formalities to receive a copyright because any original expression is protectable upon creation regardless of its inherent quality. Rather, it is sufficient to establish the date on which the work was created. Formal registration may be of material assistance in defending the copyright, however.

Copyrighted works are protected from unauthorised copying for long periods, typically lifetime of the creator plus 50-70 years, or 50 years in the case of corporate copyrights. The longer period compensates for the lower degree of monopoly power accorded by copyrights than by patents. Copyrights cannot be renewed and upon their expiry the works enter the public domain into free use.

A copyright confers the rights to prevent unauthorised duplication, performance, recording, broadcast, translation, and adaptation of a work. Further, the Berne Convention requires member countries to provide 'moral rights' or 'authors' rights', by which the creator may prevent any prejudicial modification of her work even after she has sold its economic rights. Further, most countries provide 'neighbouring rights', which protect the rights of those who disseminate an author's work, such as performers, phonogram producers, and

broadcasters, to prevent unauthorised duplication of their efforts.[31] Copyright laws also typically extend rights of authors to control the development and use of derivative products, such as the fixation of literary characters on clothing.

The main exceptions to copyright protection come under the 'fair use doctrine', the terms of which vary across countries. Under this doctrine, countries define activities that are permitted to make use of protected works in the interests of educational, scientific, and technical advance. Thus, uncompensated quotation of a work is allowed, subject to appropriate citation, as is the making of limited copies for educational and research purposes. More controversial is the treatment of decompilation of computer programs for purposes of developing competing applications. In the United States, for example, many software developers consider this form of reverse engineering to be free riding that injures their original investments in program development.

The fundamental objectives of copyrights in literary and artistic property are akin to those in patents for industrial property. Creative works provide social, cultural, and economic benefits that society wishes to secure. These works involve investment costs, including training, time, materials, technology acquisition, and the like. Moreover, marketing copyrighted products requires costly investment that is more readily recouped under the greater certainty provided by protection. If other members of society were allowed to free ride on the works without compensating their creators, the incentives to create would be severely dampened. Static economic efficiency might be achieved at the cost of lower growth in cultural identity and reduced investment in 'industrially useful' expression such as software. At the same time, providing exclusive rights limits the dissemination of literary works and raises static costs of education, research, and entertainment. The copyright system reflects a compromise between these difficulties, attempting to balance the needs of creators with society's interests in wide access to the results of their efforts.

There may be some natural market mechanisms that would provide adequate remuneration to creators in the absence of copyrights. Examples include subject matter that is relatively inaccessible, the advantages of being first in marketing the creative product, embedded devices that defeat copying of electronic products, and demand characteristics. However,

[31] Martin, above n 4, 125.

most cultural creations are not naturally protected because second comers may appropriate their value through low-cost duplication and distribution activities, with little or no investment required in mastering the underlying creative effort. Indeed, free-riding competitors would focus their efforts on those creations that had proved successful in the marketplace, absolving them of any uncertainty costs and allowing them to take advantage of the marketing efforts of creators. In turn, the returns to original developers would be significantly reduced.

Rapid and dramatic improvements in copying technologies, which have emerged in recent decades, underlie growing demands for stronger global protection and extension of protection to subject areas such as software, internet transmissions, and broadcasts.[32] These issues are complex and subtle. For example, the required technologies for receiving a satellite broadcast have evolved and become sufficiently inexpensive that it is difficult and costly for the broadcaster to practice exclusion. Some who receive the broadcast without authorisation may then benefit commercially from it by displaying it to paying patrons or by re-transmitting it over local cable systems. Such actions reduce the value of the copyright owned by the program's producer and the neighbouring right owned by its broadcaster, resulting in lower appropriateness. The private solution, in which broadcasters scramble their signals and make them unintelligible to all but authorised receptors, may be socially inefficient. It achieves exclusion, thereby sacrificing consumer benefits, but incurs a cost to the broadcaster (or its consumers) that may approximate the original loss in copyright value, leaving a net potential loss. The United States has effected a compromise solution, in which broadcasters get limited copyright protection plus remuneration from cable operators at a price set by the government. Cable operators effectively receive a compulsory license to carry the broadcast. This solution may also be sub-optimal because compulsory licenses imply involuntary transactions by the broadcaster that may stifle further program development.

Related questions surface with respect to electronic transmission of databases and other proprietary information among computers. Again, exclusion is feasible but costly, particularly when transmission is over telecommunications networks with multiple users. Databases may be copyrighted in some nations to encourage their development and sale,

[32] Kanwar and Evenson, above n 8, 257.

while laws covering trade secrets may help protect proprietary information. However, when such information is transmitted the difficulty of excluding unauthorised users raises policy concerns like those in broadcasts. There is a substantive international component to this issue since such transmissions are often trans-border and countries assert the right to regulate the amount and type of information flows crossing their borders.

Information technologies are particularly vulnerable to low-cost and massive copying, raising thorny issues about copyright and fair use, as will be discussed later in the volume. These are critical issues on the global IPRs agenda.

5.2.3 Trademarks and Geographic Indications

Trademarks and *service marks* protect rights to use a particular distinctive mark or name for identifying a product, service, or company name. Such marks are of material value in distributing goods and services. Because the pool of potential trademarks is limitless, they typically require only registration formalities, with an opportunity for others to protest the award of a trademark if it can be shown to infringe a prior mark. Trademarks typically may be renewed indefinitely upon periodic re-registration. Related rights include *geographic indications*, which certify that a consumer product (wines, spirits, and foodstuffs) was made in a particular place and that it embodies physical characteristics of that location, such as soil conditions and climate, or that it meets quality conditions implicit in the reputation of a location. Though there is some variation in how these mechanisms operate and their impacts on economic incentives, they all have the same basic purposes, which are to lower consumers' search costs, protect consumers from fraud regarding the origin of a product, and safeguard commercial reputations for quality.

Like patents and copyrights, trademarks carry legal authority to enforce the exclusive use of an asset created by human thought. In this case the asset is a symbol or other identifier that conveys information to the consumer about the product. If consumers view the mark as a reliable indicator of some desirable product characteristics, they would be willing to pay a premium for the good. This premium compensates the firm for the cost of developing and advertising the trademark. If competitors were allowed to duplicate the mark or use a confusingly similar mark these costs might not be recoverable. The distinctiveness of trademarks is important, for protecting non-distinctive marks could impose confusion and

litigation costs on society without generating lower consumer search costs. Similarly, generic names, such as car or microwave oven, are not eligible for protection. In most countries outside the United States trademarks are awarded to the first person to register them. This system provides legal certainty about ownership and helps avoid inadvertent duplication of trademarks but may encourage excessive investment in monopolising trademark development as firms attempt to register all potentially interesting or descriptive names and symbols in a prospective product line.[33]

In other countries it is simply first commercial use that procures a trademark and registration serves to buttress claims to first use. The advantage of this system is that trademarks provide little social benefit except when they are actually used to identify a good being sold. Its main difficulties are ambiguity about where the trademark may have been used first and the geographic extent of protection, along with an inability to avoid inadvertent duplication.

Unlike patents and copyrights, trademarks do not protect the creation of additional knowledge, but rather the identification of the origin of a product. Critics claim that this substantive difference renders trademarks less socially valuable, in that they sustain market power without providing dynamic incentives to create new products. A balanced view recognises that trademarks have several positive impacts that offset the market power they might generate.[34] Because trademarks indicate the inherent quality or other distinguishing features of identified products, the consumer's costs of searching for her preferred quality characteristics are lowered. This provides firms an incentive to maintain or improve quality over time in order not to erode the value of their marks. Thus, trademark protection may be expected both to raise the average quality of products on the market and to generate further product differentiation. Moreover, trademarks provide an inducement for new firms with distinctive products to enter markets, a process that can be of considerable importance for growth and market deepening in developing economies.[35] Trademark protection establishes

[33] William M. Landes and Richard Posner, 'Trademark Law: An Economic Perspective' (1987) (30) *Journal of Law and Economics* 276. The article suggest that this has been a problem in Japan, while stories about speculative or fraudulent registration are common in many countries. A modern variant of this issue is the practice of registering domain names on the internet that are quite similar to the names or trademarks of familiar enterprises.

[34] Ibid.

[35] Maskus, above n 10, 198.

incentives for orderly distribution arrangements, which can be important in securing economies of scale. Finally, trademarks provide an outlet for consumers who desire exclusivity in their consumption. The need to protect high-end consumer trademarks, such as Chanel and Calvin Klein, is evident, since otherwise free riders would duplicate such marks and attach them to goods of lower quality and lower cost. Indeed, such well-known trademarks are the targets of most product counterfeiting in international markets.

Potential monopoly costs and consumer damages from trademarks are limited for several reasons. First, the market power associated with a particular trademark is likely to be small because the potential supply of competing trademarks is virtually unlimited. There are exceptions to this observation in cases where a highly successful brand in a sector with substantial fixed investment costs serves to augment entry barriers.[36] Second, legal structures covering unfair competition generally prevent fraudulent passing off of goods and services and false and misleading advertising. Third, consumers are capable of assigning quality variations to goods. If the claimed quality is consistently not forthcoming, consumers will discount the trademark. Because firms have strong incentives to safeguard their reputations and trademarks, misleading activity should be minimal in well-functioning markets that are complemented by adequate legal systems.

Trademark infringement constitutes unauthorised duplication of a mark or use of a confusingly similar name or mark.[37] The primary international area of contention is production, sale, and importation of counterfeit goods, which are represented as legitimate goods without authorisation of the trademark holder. Counterfeiting may enhance consumer welfare by providing lower-cost alternatives but it also reduces welfare by increasing confusion, raising search costs, diminishing the value of trademarks, and lowering incentives to maintain product quality and develop new products. The fraudulent sale of low-quality food items and medicines could endanger human safety.[38] The enforcement of rights usually is established through private litigation and it is up to the

[36] Maskus, above n 10, 49.

[37] Ibid.

[38] Renée Johnson, 'Food Fraud and 'Economically Motivated: Adulteration' of Food and Food Ingredients' (CRS Report, Congressional Research Service, 2014) <http://foodfraud.msu.edu/wp-content/uploads/2014/01/CRS-Food-Fraud-and-EMA-2014-R43358.pdf> 2.

courts to determine the likelihood of confusion, whether infringement was deliberate, and what damages to assess.

5.3 Distribution Channels of Counterfeit and Pirated Products

Counterfeit and pirated products, previously largely distributed through informal markets, are infiltrating legitimate supply chains, with products now appearing on the shelves of established shops. Internationally, free trade zones, which are areas where international traders can store, assemble and manufacture products that are moving across borders with minimal regulation, are of increasing concern.[39] Passing merchandise through such zones provides opportunities for parties to 'sanitise' shipping documents in ways that disguise their original point of manufacture. They also allow parties to essentially establish distribution centres for counterfeit and pirated goods, with little or no IPR-related enforcement actions being taken. Within the zones, goods can be repackaged with counterfeit trademarks, prior to being exported to other economies, and place of origin can be falsified to reduce enforcement scrutiny at their destination.[40] The Internet has provided counterfeiters and pirates with a new and powerful means to sell their products via auction sites, stand-alone e-commerce sites and email solicitations. The online environment is attractive to counterfeiters and pirates for a number of reasons, including the relative ease of deceiving consumers and the market reach (Box 5.1).

[39] OECD, above n 6.

[40] Ibid.

Box 5.1

Factors Driving Use of the Internet by Counterfeiters and Pirates

Anonymity: The ease with which counterfeiters and pirates can conceal their true identity sharply limits the risk of detection.

Flexibility: It is possible for a counterfeiter or pirate located anywhere in the world to establish online merchant sites quickly. Such sites can also be taken down easily or, if necessary, moved to jurisdictions where IPR legislations and/or enforcement are weak.

Size of market: The number of e-commerce sites and volume of listings are huge, making it difficult for rights holders and enforcement agencies to identify and move against infringing counterfeiters and pirates. With respect to auction sites alone, the firm eBay recorded 596 million new listings in the second quarter of 2006. The possibility of marketing a small number of infringing products multiple times can further undermine enforcement efforts.

Market reach: The Internet provides sellers with a means to reach a global audience at low cost, around the clock. For counterfeiters and pirates, who have traditionally thrived in localised, often informal, markets, this represents a major opportunity to expand sales.

Deception: Utilising readily available software and images on the Internet, counterfeiters and pirates can easily create sophisticated and professional looking web sites that are highly effective in deceiving buyers. Misleading or contrived ratings of consumer experiences with Internet vendors can further complicate matters by creating a false sense of security among purchasers. Finally, the infringing products may be sold alongside legitimate articles, which can facilitate deception.

Source: OECD, 2007[41]

[41] Syed Saifuddin Hossain, Narayan Chandra Das and Md. Masum Billah, 'Trade Remedy Laws and Dispute Settlement: A Review' in Mustafizur Rahman (ed), *World Trade Organisation and Bangladesh: Post Cancun Assessment* (Centre for Policy Dialogue (CPD), 2005) 166.

5.4 Role of Criminal Networks and Organised Crimes in Counterfeiting and Piracy

The high profitability of many counterfeiting and piracy activities which in some cases exceeds the 'profitability' of illegal drug trades, low risk of detection and relatively light penalties have provided counterfeiters and pirates with an attractive environment for the illegal activities.[42] The groups involved in counterfeiting and piracy include mafias in Europe and the Americas and Asian 'triads', which are also involved in heroin trafficking, prostitution, gambling, extortion, money laundering and human trafficking. To address the situation, Interpol created an Intellectual Property Crime Action Group in July 2002, to help combat trans-national and organised IP crime by facilitating and supporting cross-border operational partnerships. Some governments have also established bilateral operational partnerships in border enforcement and criminal investigations. In addition to the established link between counterfeiting and piracy and organised crime, Interpol has highlighted a disturbing relationship of counterfeiting and piracy with terrorist financing, with IP crime said to be becoming the preferred method of financing for a number of terrorist groups.[43] The links take two basic forms:

- Direct involvement, where the terrorist group is implicated in the production or sale of counterfeit goods and remit a significant portion of those funds for the activities of the group. Terrorist organisations with direct involvement include groups which resemble or behave like organised crime groups.
- Indirect involvement, where sympathisers involved in IP crime provide financial support to terrorist groups via third parties.

5.5 Magnitude of Border Infringement of IPR

Counterfeiting and piracy are illicit activities in which criminal networks and organised crime thrive. The items that they and other counterfeiters and pirates produce are often substandard or even dangerous, posing health and safety risks to consumers that range

[42] Nassim Khadem, 'Knock-offs give bigger hit than drugs', *The Age* (NSW), 6 June 2007 <http://www.theage.com.au/news/business/knockoffs-give-bigger-hit-than-drugs/2007/06/05/1180809518530.html> (accessed on 10 March 2013).

[43] Interpol, 'Trafficking in illicit goods and counterfeiting' (Interpol, 2015) <http://www.interpol.int/Crime-areas/Trafficking-in-illicit-goods-and-counterfeiting/Trafficking-in-illicit-goods-and-counterfeiting> (accessed on 18 October 2015).

from mild to life threatening. The illegal activities undermine innovation, which is key to economic growth. The economic gains that some consumers experience by knowingly purchasing lower-priced counterfeit or pirated products need to be considered in a broader context; many consumers do not experience such gains, they are worse off.[44] The effects of counterfeiting and piracy are more pronounced in developing economies, which is where infringing activities tend to be highest, due, in part, to relatively weak enforcement. If unaddressed, weak enforcement is an issue that could affect relations with trading partners.

5.5.1 Economy-wide Impacts of Counterfeiting and Piracy

Innovation and Growth are Undermined

Innovation has long been recognised as a main driver of economic growth, through the development and exploitation of ideas for new products and processes. Innovators protect these ideas through patents, copyrights, design rights and trademarks. Without adequate protection of these intellectual property rights, the incentive to develop new ideas and products would be reduced, thereby weakening the innovation process.[45] The risks are seen as particularly high for those industries in which the research and development costs associated with the development of new products are high compared to the cost of producing the resulting products. [46] Pharmaceutical products are a case in point. Counterfeiting and piracy, to the extent that they undermine the efforts of innovators, can therefore have important adverse effects on research and, eventually, growth.

Criminal Networks Gain Financially

Counterfeiting and piracy transfer economic rents to parties which are often engaged in a variety of illegal activities, including tax evasion and drug trafficking. It can be assumed that a portion, possibly a large portion, of the rents is eventually used to sustain further criminal activity, in a corrupt and organised manner.[47]

---

[44] OECD, above n 6, 3.

[45] WTO, *Understaiding the WTO: The Agreements: Intellectual property: protection and enforcement* <https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm> (accessed on 16 January 2014).

[46] Syed Saifuddin Hossain, 'Border Enforcement of IPR Laws in Australia' (2009) 4(1) *Global Trade and Customs Journal* 12.

[47] OECD, above n 6, 5.

Environment is Negatively Affected

Counterfeiting and piracy can have negative effects on the environment. Firstly, the growing volume of seized goods raises environmental issues since destruction can be a costly process that creates considerable waste. In 2005, for example, the European Union alone seized 76 million articles.[48] Secondly, substandard counterfeit products can have environmentally damaging consequences. A case in point is the chemical industry, which has documented cases where the use of counterfeit fertilizers caused serious damage to the environment. The destruction of harvests in large areas in China, Russia, Ukraine and Italy has been cited as examples.

Labour Market Suffers

Counterfeiting and piracy affect employment at two levels: economy-wide and in affected sectors. Economy-wide, jobs shift from rights holders to infringing parties. The shift has implications for the welfare of employees as working conditions in clandestinely run illicit activities are often far poorer than those prevailing in recognised firms that value their employees higher and adhere to health, safety and other regulatory norms.[49] The pharmaceutical industry provided compelling evidence of the appalling conditions under which some counterfeit products were being manufactured. At the sectoral level, a number of assessments have been made of the jobs lost due to counterfeiting and piracy or, alternatively, the jobs that would be created if piracy levels declined.[50]

Foreign Direct Investment (FDI) May Get Affected Negatively

The situation with respect to intellectual property rights is one of many factors considered by firms who are investing abroad. For some industries, the level of counterfeiting and piracy may be relatively important, whereas in others it may be a minor consideration. The relationship was tested in an econometric analysis carried out by the OECD.[51] It found that

---

[48] Ibid.

[49] Syed Saifuddin Hossain, Uttam Deb and Muhammad Al Amin, 'Impact of information technology in trade facilitation on small and medium-sized enterprises in Bangladesh' (ARTNeT Working Paper Series, No. 76, UNESCAP, 2009) 29.

[50] OECD, 'Informal cross-border trade and trade facilitation reform in sub-Saharan Africa: final report' (2009) <www.oecd.org/tad/42222094.pdf> (accessed on 27 September 2014).

[51] OECD, 'Quantitative assessment of the benefits of trade facilitation' (Doc. TD/TC/WP(2003)31/FINAL, OECD, 2003) 7.

FDI from Germany, Japan and the United States was relatively higher in economies with lower rates of counterfeiting and piracy. However, additional results of the econometric test suggest that counterfeiting and piracy serve only a limited role in explaining FDI behaviour.

Trading among Nations Gets Affected

The relationships between counterfeiting and piracy and the volume and structure of international trade were examined econometrically. The results found no correlation with respect to trade volumes, but there were indications that counterfeiting and piracy influenced the types of goods imported and exported: economies with relatively high counterfeiting and piracy rates tended to export lower shares of products where health and safety concerns could be high.[52] This was in particular the case for pharmaceutical products. As above, the results should, however, be treated with caution as they are based on limited data.

5.5.2 Affecting the Right-Holders

Lower Sales Volume and Price

Counterfeit and pirated products crowd genuine products out of the market, lowering the market share of the rights holder, putting downward pressures on prices. In the case of trademark- and copyright-infringing items, the loss in market share has two components (i) sales lost to consumers who purchase a counterfeit or pirated product believing it is genuine and (ii) sales lost to consumers who knowingly purchase a lower-priced counterfeit or pirated product instead of a genuine article.

Affecting Brand Value and Firm Reputation

Counterfeit or pirated products may damage the brand image and reputation of firms over time. For instance, those consumers who believed they were buying a genuine article when in fact it was a fake, will be likely to blame the manufacturer of the genuine product if the fake does not fulfil expectations, thus resulting in a loss of goodwill. If consumers never discover that they were deceived, they may be reluctant to buy another product from that

[52] Hossain, above n 46, 11.

manufacturer and may communicate dissatisfaction to other potential buyers. The proliferation of counterfeit versions of luxury goods can make the genuine articles less desirable to their traditional consumers.[53] These effects were reflected in responses to the OECD industry questionnaire by respondents from the consumer electronics, information and computer, electrical equipment, food and drink, luxury goods, sportswear, automotive parts and accessories and pharmaceutical industries.

Lower Royalties

Royalties are the proceeds gained by IPR holders for permitting other parties to exercise such rights. Infringement deprives the rights holders of these proceeds as customers knowingly or unknowingly purchase the fake/imitation for a fraction of the price of the original.

Declining Investment

High levels of counterfeiting and piracy could reduce the incentive of some firms to invest in the development of new products and processes. However, only limited empirical work has been carried out on this.

Increasing Costs of Combating Counterfeiting and Piracy

Rights holders incur a variety of costs when combating counterfeiting and piracy.[54] It should be noted that, because these costs are remedial in nature, these do not translate into higher quality products, product innovation or other enhancements and can therefore be considered pure social loss.

Reduced Scope of Operations

Counterfeiting and piracy can affect the scope of a firm's activities. Respondents to the OECD industry survey mentioned instances where reduced profitability and losses in brand value had driven companies out of business or reduced their scale of operations.[55]

---

[53] JOEL GRIFFIN, 'Combating counterfeit products in the security industry' (2013) <http://www.securityinfowatch.com/article/10925074/how-to-combat-the-proliferation-of-counterfeit-security-goods> (accessed on 25 August 2014).

[54] Robert T. Green and Tasman Smith, 'Countering Brand Counterfeiters' (2002) 10(4) *Journal of International Marketing* 97.

[55] OECD, above n 6, 4.

5.5.3 Effect on consumers

Health and Safety

Counterfeiters and pirates have limited interest in ensuring the quality, safety or performance of their products. This increases the potential of negative effects on consumers. Concerns about this appear frequently in the responses to the OECD surveys.[56] The industries where health and safety effects tend to occur include: automotive, electrical components, food and drink, chemicals, toiletry and household products, pharmaceuticals and tobacco products.[57]

- In the automotive sector, inferior replacement parts falsely carrying the brand name of trusted manufacturers have been problematic. Counterfeit brake pads, hydraulic hoses, engine and chassis parts, suspension and steering components and airbag mechanisms are among the items that have been counterfeited. In some instances the deficiencies found in these products seriously impair the safety of vehicles.
- In the electrical components sector, counterfeit circuit breakers have been found to be calibrated wrongly or to be constructed using low quality materials.[58] Such deficiencies have caused fires and fatal electric shocks.
- In the food and drink sector, few people would knowingly purchase counterfeit food or drink products, due in part to the potential health risks involved. Such risks range from general discomfort, to serious illness and even death.[59] As discussed in the sectoral assessment, this has been the case for poorly distilled raw spirits and fake baby formula.

---

[56] Ibid.

[57] World Customs Organization, 'Counterfeiting and Piracy: Crime of the 21st Century?' (WTO, 2007).

[58] GE, 'TRAINING - How To Identify Counterfeit Circuitbreakers' (News Brief, Volume 1, Issue 2, GE, 2007) <http://www.pearl1.org/downloads/176365_CounterfeitingNewsBriefFinal30Aug2007[1]1.pdf> (accessed on 8 November 2015).

[59] ICC and FICCI, 'India: Counterfeiting, Piracy and Smuggling in India – Effects and Potential Solutions' (ICC and FICCI, 2013) <https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0ahUKEwiD86q1lLXKAhXCJ5QKHSIkAZ0QFggtMAI&url=http%3A%2F%2Fwww.iccwbo.org%2FData%2FDocuments%2FBascap%2FInternational-engagement-and-advocacy%2FCountry-Initiatives%2FIndia%2FCounterfeiting%2C-piracy%2C-smuggling-in-India---Effects-and-possible-solutions-(low-resolution)%2F&usg=AFQjCNHy2kZXhvBXLmDnXqT8mb44nCJqQA&bvm=bv.112064104,d.dGo> (accessed on 27 June 2014).

- In the case of pharmaceuticals, trademark-infringing products may include correct ingredients in incorrect quantities or may be composed according to a wrong formula. Products can furthermore contain non-active or even toxic ingredients.[60] Ailments which could be remedied by genuine products may go untreated or worsen; in some cases this may lead to death. Most purchasers of counterfeit pharmaceuticals are likely to be completely unaware that they have been victimised.

Consumer Utility

The value or satisfaction that consumers derive from a product is based in large measure on the quality of the products and/or its performance, taking the price paid for the product into account. When the quality and/or performance of a counterfeit or pirated product is inferior to a genuine product, consumer utility is decidedly lower for those individuals who pay full price, believing the product that they have purchased is genuine.[61] A consumer who unknowingly pays full price for a low quality counterfeit computer component that does not operate properly, for example, gains far lower value than someone who purchases a genuine component operating according to expectations.

The situation is more nuanced with respect to parties that knowingly purchase counterfeit or pirated products at low prices. If the quality of such products is high, consumer utility could be higher than would be the case for higher-priced genuine articles. However, if the quality and/or performance of the infringing product is lower, which is generally the case with counterfeit products, consumer utility could be lower. A low quality counterfeit watch that does not keep accurate time, and that wears out quickly may bring consumers less utility than an original, even though the counterfeit was purchased at a fraction of the price of the original.

It should be noted that while consumers who knowingly purchase counterfeit or pirated products know the price at which the counterfeit or pirated product is being sold, their ability to assess the quality of most counterfeit or pirated products is seriously limited; this

[60] David Suzuki Foundation, 'What's Inside? That Counts' (David Suzuki Foundation, 2010) <http://www.davidsuzuki.org/publications/downloads/2010/DSF-report-Whats-inside-that-counts.pdf> (accessed 6 November 2013).

[61] Albert Wenben Lai, 'Consumer Values, Products Benefits and Customer Value: A Consumption Behavior Approach' (1995) 22 *Advances in Consumer Research* 381.

explains why it is not possible to assess utility at the time of purchase.[62] In the event consumers have misjudged, they have little recourse as warranties and money-back guarantees are not generally offered for counterfeit or pirated products.

In addition to these short term effects, counterfeit and pirated products can have longer-term implications. Prices may be lower, for example, if rights owners reduce prices to compete more effectively with counterfeiters and pirates. Furthermore, less innovation by rights holders due to counterfeiting and piracy could translate into slower product development, thereby slowing growth in consumer utility. Finally, some rights holders could abandon markets altogether because of counterfeiting and piracy.

5.5.4 Effects on Basic Socio-Cultural Human Rights of the People

The relationship between intellectual innovations and the interest of the wider society in such endeavours is a delicate balance. This issue is expressly addressed by the International Covenant Economic, Social and Cultural Rights (ICESCR). Article 15 of the Covenant specifies that parties (either ratifying or acceding) 'recognise the right of everyone' both 'to enjoy the benefits of scientific progress and its applications'3 and 'to benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.'[63] However, the role of the WTO and its various agreements have sometimes been portrayed as being at odds with the protection of human rights.[64] Given that the TRIPS Agreement is contained in Annex 1C to

[62] David Suzuki Foundation, above n 60.

[63] UN, ' International Covenant on Economic, Social and Cultural Rights, henceforth ICESCR' (1966), U.N. Doc. A/6316 (1966), G.A. Res. 2200 (XXI), 21, U.N. GAOR Supp. (No. 16) 49.

[64] See, for example, J. Oloka-Onyango and Deepika Udagama, 'The Realization of Economic, Social and Cultural Rights: Globalisation and Its Impact on the Full Enjoyment of Human Rights', Preliminary Report Prepared for the UN Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights, United Nations, Economic and Social Council, 2000, in which the WTO is described as a 'veritable nightmare' for those concerned with the protection of human rights, and particularly for the rights of developing countries and women. This report was followed by further reports which reached more nuanced and generally more favourable conclusions. See United Nations, Economic, and Social Council, Report of the High Commissioner, Economic, Social and Cultural Rights: The Impact of the Agreement on Trade-Related Aspects of Intellectual Property Rights on Human Rights, UN document E/CN.4/Sub.2/2001/13, 27 June 2001 and United Nations, Economic, and Social Council, Report of the High Commissioner, Economic, Social, and Cultural Rights: Liberalization of Trade in Services and Human Rights: Executive Summary, UN document E/CN.4/Sub.2/2002/9 (25 June 2002). Nevertheless, the perception of the WTO as a threat to the fulfilment of human rights has persisted (see, such as Caroline Dommen, 'Raising Human Rights Concerns in the World Trade Organization: Actors, Processes and Possible Strategies', 24(1). Human Rights Quarterly (2002) 1–50) and merits further reflection.

the WTO Agreement, the overall objectives of the WTO such as 'raising standards of living' worldwide, as reflected in the Preamble to the WTO Agreement, also concern the TRIPS Agreement.[65]

Protection and promotion of human rights are the responsibilities for both individuals and governments. From a human rights perspective, IP is more of a social product than an economic one. With states being party to both the WTO-TRIPS and the ICESCR, conflict of interest is bound to arise as one is binding on the members while other is not.

5.5.5 Effects on Government

Tax revenues

Tax collection is presumed to be far more effective from rights holders and their licensees than from counterfeiters and pirates. Potential losses include corporate income taxes, sales or value added taxes, excise taxes, import tariffs and social insurance charges. The revenue losses are particularly high in sectors such as tobacco and alcohol, where excise taxes are high and smuggling of counterfeit products to avoid those taxes is widespread.

Cost of Anti-Counterfeiting Activities

The costs of counterfeiting and piracy to governments include those associated with customs and related law enforcement agencies and the resources required to process judicial proceedings. Significant costs are also incurred in handling and disposing of seized goods. Moreover governments often commit resources to initiatives to combat counterfeiting and piracy, such as increasing awareness of the problem domestically and internationally and cooperating with other governments to improve enforcement. Finally, governments often bear costs associated with addressing the consequences of counterfeiting on public health and safety. Criminal networks sometimes seek to reduce disruption of their distribution channels and the risk of punishment for their unlawful activities through bribery or extortion of government officials. Such actions weaken the effectiveness of public institutions at the expense of society at large.

---

[65] For details, see Preamble to the WTO Agreement.

5.6 Globalisation and the Technology Content of Trade

The preceding discussion set out the essential trade-offs and complexities in IPRs protection, including sectoral interests and international variations in protection. The existence of differential standards across countries is consequential because intellectual property accounts for a substantial and growing share of international trade and investment. Inventors and creators market their products and technologies globally, a fact that collides with weak and variable protection.[66] Indeed, in recent years perhaps no other area of international commercial policy has come under greater pressure aimed at expanding the global reach of standards traditionally set in developed countries. This section provides evidence on the extent of international exchange of intellectual property.

5.6.1 The Use of Intellectual Property Rights

It is difficult to devise accurate measures of the outputs of intellectual creation. Such outputs include both major inventions and minor product innovations, each of which may be patented but have vastly different economic and social values. They include slogans, logos, and brand names that may be trademarked but not necessarily put into use.[67] Research activities may generate trade secrets, which by definition are not revealed in any published statistics. Finally, copyright registrations do not cover the vast amounts of creative materials for which registration is not sought, nor do they reflect the underlying value of particular literary and artistic expressions. Thus, the contributions of intellectual work to economic activity, growth, and wealth creation are not easily measured.

5.6.2. International Trade in IPRs-Sensitive Goods

Goods that rely extensively on IPRs protection tend to be among the fastest-growing items in international trade and also are distinctive in terms of international comparative

[66] Maskus, above n 2, 37.

[67] Faizah Imani, 'How to Register a Slogan With the Trademark Office' (Chron, Undated) <http://smallbusiness.chron.com/register-slogan-trademark-office-23212.html> (accessed on 12 August 2014).

advantage.[68] This is unsurprising in light of underlying product characteristics, including advanced technological content, rapidly evolving dynamics in technology, and marked quality differentiation.

5.6.3 Licensing and Foreign Direct Investment

There are several reasons why published data on Royalty and License Fee (RLF) may not capture adequately the amount of technology being traded. Licensing fees are determined through complex contracting procedures, which attempt to price the implicit value of information. Information is unlike standard commodities in that its ultimate economic value may be unknown at the time a contract is struck. Further, the fees paid may be influenced by tax provisions, accounting rules, and management decisions regarding the extent and form of income repatriation. Finally, joint ventures, business alliances, and cross-licensing agreements may encompass different volumes of licensing than would be suggested by straightforward licensing fees. Thus, such figures should be treated with caution.

5.6.4 Pressures for Change in the Global IPRs System

The very nature of IPRs has been demanding changes in the administration of the system. First, the 1990s have been a period of rapidly expanding international economic activity, particularly as regards implicit or explicit trade in technology and goods protected by intellectual property rights. Second, resort to IPRs through patent applications and trademark registrations is rising rapidly, particularly in major developing economies.[69]

That the international demand for IPRs is rising stems largely from the fact that in a globalising economy the creation of knowledge and its adaptation to product designs and production techniques are increasingly essential for commercial success. In this environment firms wish to exploit their technical advantages on an international scale and

[68] K.E. Maskus and D. Eby Konan, 'Trade-Related Intellectual Property Rights: Issues and Exploratory Results' in A.V. Deardorff and R.M. Stern (eds), *Analytical and Negotiating Issues in the Global Trading System* (University of Michigan Press, 1994) 401.

[69] Ricardo Melendez-Ortiz and Pedro Roffe (eds), *Intellectual Property and Sustainable Development: Development Agendas in a Changing World* (Edward Elgar, 2009) 53.

also to limit expropriation costs from potential rivals.[70] These tasks are made easier by the adoption of stronger and more uniform IPRs in different countries. Thus, globalisation of technology trade is itself the key factor in explaining systemic change in intellectual property rights.

Two other factors are critical as well. One is that the costs of copying and imitating products from important sectors of technology are falling, making infringement easier and more prevalent. This is evident in the case of electronic media, such as software, computer games, compact disks, and videos, which may be reproduced cheaply and in bulk with little or no quality degradation. Similar problems plague unauthorised duplication of broadcasts and internet products and services, a fact that has materially retarded the international provision of electronic information. In pharmaceuticals, the costs of original product research and marketing continue to grow rapidly, but imitation costs remain low. Many biotechnological products, in particular, are subject to considerable investment costs but may be copied at a small fraction of original expense.[71] It is also straightforward to duplicate industrial designs, such as tile patterns or machine configuration. In all of these cases, copying costs are falling relative to original development costs, in large part because of efficiencies from applying computer technologies to imitation tasks.

A final strain on the classical IPRs system, as discussed earlier, is that many of these newer technologies do not fit comfortably within standard conceptions of industrial property and artistic property. Computer microcircuits, software programs, biotechnological inventions, and electronic transmissions all strain the limits of classical patent or copyright laws.[72] Thus, even within developed countries the area of intellectual property law remains in considerable flux.

These elements explain the substantial rise in demand on the part of intellectual property owners for stronger and more harmonised global standards of protection. In turn, they

[70] Hossain, Deb and Amin, above n 49, 23.

[71] Rachel Macdonald, 'Biologic copy-cat drug development is rising, bringing pharmaceutical companies together' (Medill Reports, 2012) <http://newsarchive.medill.northwestern.edu/chicago/news-205418.html> (accessed on 23 November 2013).

[72] Maskus, above n 2, 45.

underlie the massive efforts mounted by authorities in the United States and the European Union to reform the global IPRs system.[73] These efforts have been ubiquitous, incorporating numerous bilateral negotiations with particular developing nations under threat of trade sanctions, comprehensive regional trade agreements that include IPRs chapters, the multilateral TRIPS Agreement and its prospective review in the year 2000, ongoing efforts to unify legal practices within the EU, and international negotiations under the auspices of WIPO over intricate aspects of copyright for electronic transmissions.[74] Issues discussed under the ambit of TRIPS-plus negotiations are also of critical concern for all parties in the international trading system. Moreover, it is also promising to see that regional and bilateral initiatives such as the TPP and the TTIP have focused strongly on border protection, trade facilitation and IPR protection. While the intentions are there, diversity in the ability of countries to implement and to adhere to the provisions of such existing and upcoming agreements create window for further discussion and negotiations.

5.7 Conclusion

Information on counterfeiting and piracy falls far short of what is needed for rigorous analysis and for policymaking. Priority should be given to (i) improving information that is available from enforcement activities (such as customs and other law enforcement agencies) and (ii) expanding the use of surveys to collect basic information on developments from rights holders, consumers and governments. Improved and expanded information will enhance opportunities for developing sector-specific approaches for estimating the magnitude of counterfeiting and piracy and the effects on stakeholders. Such approaches should provide clear explanations of the methodologies employed and the underlying assumptions; transparency is key. Outcomes should be evaluated in terms of reasonableness and, wherever possible, be subjected to sensitivity analysis to determine how variations in key assumptions affect outcomes.

[73] Ibid.

[74] Hossain, above n 46, 8.

5.7.1 Improving Information on Counterfeiting and Piracy

There is a strong need for developing additional information on the magnitude, scope and effects of the phenomenon, both on the national/global level and in individual sectors. To maximise the value and usability of such information, it is crucial that the data be:

- *Systematically collected:* Assessments of developments and trends in counterfeiting and piracy require that data be collected regularly over time. This calls for data mining and data preservation on a regular basis.[75] Collection of data through single window is a major tool in this process. In addition, other law enforcement agencies like police, intelligence, and coast guard can significantly contribute towards this end.
- *Comparable:* Consistent data collection is essential for ensuring data comparability across companies, sectors, and economies. There have been instances where studies suffered to great extents due to lack of comparable data for analysis.[76]
- *Comprehensive:* Efforts to develop basic information should be comprehensive, drawing on as many different points of measurement as possible.[77] In developing information on magnitude and scope, for example, key stages for potential data collection would include points of production, distribution, sales, and consumption.

Good information on product infringement would provide a solid basis for establishing the scope of counterfeiting and piracy, and could be a key input for assessing the magnitude and effects of counterfeiting and piracy. Currently available data sources are deficient due to inconsistency and incompleteness.[78]

[75] Syed Saifuddin Hossain, 'Bangladesh Customs: Managing Risk for Better Trade' (2009) 4(2) *Global Trade and Customs Journal* 49.

[76] Ibid.

[77] Debapriya Bhattacharya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006) 34.

[78] Ibid.

Common reporting framework can significantly improve date enforcement

The reporting framework developed by customs agencies through the WCO offers one of the most promising ways forward for improving information on infringement. The framework establishes the parameters for reporting on intercepted products (Box 5.2).

Box 5.2

Key Elements of WCO Reporting Framework

- Detailed description of the products involved.
- Date of interception.
- Value of the product.
- Quantity of the product (number of items or weight, etc.).
- Type of IPR infringement (patent, trademark, copyright, etc.).
- Origin of product.
- Routing of product (from origin to destination).
- Type of concealment (if relevant); and
- Detection method.

Source: WTO, 2012[79]

With relatively few modifications, the framework could be transformed into a template that could be used (i) by other law enforcement agencies to record IP crime, and (ii) by industry to compile related information. The WCO's Harmonised System, for example, provides a coded nomenclature for over 5,200 items; utilising this, at the detailed, six-digit level would provide much needed specificity about the products being intercepted.[80] Work currently underway at Interpol to develop an information base should also be considered as it may provide further ideas for refining the framework.

Reporting Framework Needs to be Developed

The effects that substandard counterfeit or pirated products have on the health and safety of consumers need to be documented more systematically and extensively. One step forward

[79] WCO, 'SAFE: Framework of sandards to secure and facilitate global trade' (WCO, 2012) <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/~/media/55F00628A9F94827B58ECA90C0F84F7F.ashx> (accessed on 7 March 2013).

[80] OECD, above n 6, 11.

would be to develop a reporting platform, as is suggested above in the case of enforcement. To this end, codes could be introduced in the International Classification of Diseases to enable the tracking of the harm caused by counterfeit or pirated products. All stakeholders should be provided with a means to contribute to the data collection (such as including governments, rights holders and consumers). The World Health Organization (WHO), through its recently developed Rapid Alert System, offers a solid point of departure for work in this area.[81]

Surveys Could be Developed to Gather Insights

Surveys of consumers, rights holders, intermediate suppliers, and governments are a potentially rich source for various types of information on counterfeiting and piracy. They can be used for gathering information on the scope, magnitude, and effects of counterfeiting and piracy, and they can be used for developing information on attitudes, behaviours and perceptions, and adjusting strategies to combat the problem.

The strength of surveys is their flexibility in the sense that they can be designed to provide information on a wide range of quantitative and qualitative factors.[82] However, they are sensitive to the way questions are constructed and rely on the willingness of respondents to provide accurate responses – this could be a concern regarding sensitive information such as unlawful behaviour or industry secrets and/or interests. Surveys must therefore be well designed and targeted in a manner that will provide information on those characteristics which are key to the analysis. A clearly defined and measurable research objective is thus critical.

To enhance their value, surveys should be standardised to the extent possible. The standardisation would greatly facilitate cross-country and cross-sector analysis. Assessments of trends would furthermore be possible if the surveys were conducted systematically over time.

[81] WHO, 'Rapid Alert System for combating counterfeit medicine' (WHO, 2005) <http://www.wpro.who.int/mediacentre/factsheets/fs_20050503/en/> (accessed 28 October 2012).

[82] Bhattacharya and Hossain, above n 77, 16.

Consumer surveys can be used to develop information on the experience that the consumers have had with counterfeit and pirated products and the effects, whether they purchased them knowingly or were deceived. Such surveys also provide a means to develop insights into the (i) types, frequency and quantity of counterfeit or pirated products that consumers have knowingly purchased; (ii) factors driving the purchases; and (iii) means through which the products were purchased.[83] Finally, consumer surveys can also be used to develop information on consumer attitudes and perceptions.

Surveys of rights holders can be used to develop information on: (i) the counterfeiting and piracy situation overall, as well as in different product markets; (ii) the effects that counterfeiting and piracy are having on sales, investment, costs, brand value, etc. (iii) the actions that industry is taking to combat the counterfeiting and piracy; and (iv) the counterfeiting and piracy situation in different economies.[84]

Surveys of governments can similarly serve as a tool through which information on the counterfeiting and piracy situation can be developed. Conducted at regular intervals, they can provide insights into how policies and programmes are evolving, and provide a means for tracking the effectiveness of those policies and programmes in the economies concerned.[85] Eventually such surveys could provide inputs that could be used as a basis for strengthening international dialogue. They could also serve as a catalyst for improving domestic and international polices.

Using Sampling and Economic Experiments

Sampling can be used to develop insights into the magnitude of counterfeiting or piracy of specific products.[86] As it is relatively expensive, its use is often limited to investigative work that is carried out in targeted markets.

Economic experiments are sessions that are carried out with individuals and/or groups to develop insights into behaviour. They can be used in the case of counterfeiting or piracy to

[83] David Suzuki Foundation, above n 60.

[84] Ibid.

[85] Ibid.

[86] OECD, above n 6.

examine the conditions under which consumers will opt for counterfeit or pirated products in lieu of genuine articles. They are a promising technique that could be used to quantitatively assess the strength of the factors driving knowing consumption of counterfeit or pirated products.

5.7.2 Strengthening Analysis of Counterfeiting and Piracy

Assessing Factors Driving Production and Consumption of IPR Infringed Goods

The characteristics of counterfeit and pirated products play an important role in determining the extent to which they are consumed in primary and/or secondary markets. Similarly, institutional factors play an important role in determining the extent to which production and consumption take place in different economies. Carrying out assessments of the factors (or drivers), even on a qualitative, nonempirical basis, can generate insights into the counterfeiting and piracy situation in different products and in different economies.[87] In the case of product-specific assessments, results can also (i) suggest how approaches to measuring magnitude should be structured, and (ii) indicate areas where efforts to combat counterfeiting and piracy should be focused. In the case of the assessments of economies, results can help to identify ways to strengthen the effectiveness of policies to combat counterfeiting and piracy.

Estimating Magnitude of IPR Infringement at Borders

Direct approaches rely on the use of infringement data in estimating the total magnitude of counterfeiting and piracy, or related information that can serve as proxies; the music and movie industries have used this technique. *Indirect approaches* are used where total production or consumption of a product (including counterfeit or pirated items) can be estimated.[88] For example, counterfeit or pirated production can be derived by subtracting genuine production from the total. The software industry has used such an approach in its work.

[87] Ibid.

[88] Hossain, above n 46, 11.

Effects on prices, profits and sales volume can be measured econometrically, provided sufficient information on elasticity and the operation of the primary and secondary markets for counterfeit and pirated products are known.

Expanding Economic Analysis

Far more econometric and related analysis can and should be done to improve understanding of (i) the magnitude of counterfeiting and piracy and (ii) effects economy-wide, and on rights holders, consumers and governments. Opportunities for doing so are particularly promising at the sectoral level. The approaches that are used to carry out such analysis should adhere to a number of key principles: (i) assumptions should be spelled out; (ii) economic arguments should be clearly elaborated; (iii) to the extent possible, outcomes should be tested for reasonableness, using alternative estimation approaches; (iv) sensitivity analysis should be carried out to provide indications of potential variability of the results; and (v) details on the approaches used should be shared with interested parties, with a view towards expanding and improving future analysis.[89]

5.7.3 Strengthening Government Initiatives

Intergovernmental initiatives have included the establishment of a comprehensive multilateral legal framework within the WTO,[90] as well as co-operation in a number of specific fields. On the enforcement front, the WIPO, Interpol and the WCO have all developed specific programmes to improve enforcement of IPRs. In the area of health, the WHO is supporting specific initiatives to undermine the counterfeiting of medicines.[91] Issues have also been addressed in the G8, and as part of a Global Congress that several multilateral institutions have organised with industry support.

As indicated, the basic multilateral rules governing IPR are established in the WTO's TRIPS Agreement. Under that Agreement governments are obliged to ensure that intellectual property rights can be enforced under their laws and that penalties for infringement are sufficient to deter violations (Box 5.3).

[89] OECD, above n 6,

[90] Ilias and Fergusson, above n 9, 105.

[91] WHO, above n 81.

Box 5.3

Minimum Standards Set by TRIPS for IP Enforcement

- ***Civil proceedings***: judicial instruments must be available to right holders, such as injunctions, damages, evidence, right of information and provisional measures.
- ***Criminal proceedings***: members have to provide for criminal proceedings for commercial scale trademark and copyright infringement.
- ***Border measures***: measures to prevent the commercialisation of imported products that infringe trademarks and copyrights are required.

Source: WTO[92]

In addition to the TRIPS Agreement, many regional and bilateral agreements contain provisions on IPR. In a number of cases, the obligations contained in these agreements go beyond those contained in TRIPS.[93] The actions that have been taken suggest that there may be scope for enhancing disciplines. Consideration could be given by governments, for example, to: (i) strengthening civil and criminal remedies to more effectively redress the harm caused to IPR holders; (ii) expanding the scope of border measures to cover exports as well as goods in transit or transshipment; and (iii) requiring that certain types of information related to counterfeiting and piracy be made available to the public.

At the national level, two of the principal challenges in combating counterfeiting and piracy are to (i) find ways to enhance enforcement and (ii) raise awareness of counterfeiting and piracy issues. More may need to be done to undermine counterfeiting and piracy at the point where infringement originates; once goods enter domestic or international trade, the task becomes far more difficult.

Most economies appear to have the legal and regulatory mechanisms in place to adequately combat counterfeiting and piracy. Enforcement, however, is viewed by many as weak.[94] A

[92] WTO, above n 22.

[93] Ilias and Fergusson, above n 9, 105.

[94] ICC and FICCI, above n 59; Hossain, above n 75, 52; Mazzoleni and Nelson, above n 23.

common criticism is that the resources devoted to IPR enforcement are insufficient and that those who engage in counterfeiting and piracy are not sufficiently penalised for their actions when they are caught.[95]

As resource challenges are likely to persist, governments may need to consider focusing enforcement activities on operations which will have the greatest impact, such as disruption of counterfeiting and piracy activities at the points where infringement originates (place of manufacture, point of importation). Once items move into domestic or international trade, the chances for detecting illicit items are greatly reduced. Stopping infringing activities at the source is however not always possible; this is why efficient border enforcement procedures are also essential.

Raising awareness is an important aspect of combating counterfeiting and piracy and needs to be pursued vigorously.[96] Consumers should be adequately informed about the growing threat that substandard counterfeit and pirated products pose to their health and safety, and consumers and counterfeiters and pirates should be aware about the legal consequences of infringing IPRs or knowingly purchasing infringing products. Raising awareness could also have beneficial effects on consumer attitudes and behaviour towards counterfeiting and piracy.

A review of the situation in a number of OECD Member and non-Member economies has identified eight key areas requiring the attention of policymakers.

- *Co-ordination:* A number of ministries and related government bodies are generally involved in administering and enforcing IPRs.[97] Effective coordination appears to be the key to strengthening planning and enforcement. In view of the current realities affecting IPR enforcement, a large number of countries have promoted co-

[95] Hossain, above n 75, 50.

[96] For a detailed discussion, see GE, above n 58; Yann Duval, 'Cost and benefits of implementing trade facilitation measures under negotiations at the WTO: An exploratory survey' (ARTNeT Working Paper Series 3, UNESCAP, 2006) 63; Hossain, above n 75, 50.

[97] Hossain, above n 46, 5.

ordination, either by designating lead agencies, or by setting up special interagency working groups on IP protection.[98]

- *Policy:* A clear policy on IP enforcement that contains concrete elements can provide the impetus needed to improve outcomes. However, only a few economies have, so far, established detailed, measurable plans.[99]

- *Legal and regulatory framework:* The legal and regulatory framework provides the parameters within which enforcement can be pursued. While the frameworks used by economies resemble each other in key respects, there are some important differences. In some countries, the consumer of infringing products can be charged with a criminal offence; also, in one economy, the proceeds from IP crime can be recovered and used to finance additional enforcement activities.

- *Enforcement:* A good legal and regulatory framework is essential for combating counterfeiting and piracy, but it is not sufficient. Enforcement is critical. Most of the economies surveyed have increased the resources devoted to enforcement in recent years. Some have created specialised IP units and IP courts to enhance effectiveness. To increase impact, some have launched well publicised domestic campaigns aimed at disrupting counterfeiting and piracy activities. A number of countries allow customs authorities to check infringing goods destined for export, transit and transshipment, or to act upon their own initiative (ex officio).

- *International co-operation:* Counterfeiting and piracy is a global problem which needs be addressed on a co-operative basis for best results. Most economies participate in international forums such as WTO, WIPO or WCO. Some economies are active at the bilateral or regional level, providing training and engaging in joint enforcement activities.[100]

---

[98] Ibid.

[99] Ibid.

[100] OECD, above n 6, 12.

- *Awareness:* It is important for consumers, rights holders and government officials (i) to be aware of the counterfeiting and piracy problem, (ii) to understand what the effects are economy-wide as well as on individual stakeholders, and (iii) to know what concerned parties can do to combat counterfeiting and piracy activities.[101] A number of economies have developed far-reaching training and education programmes. Increasing awareness has also included the development of information through surveys. Finally, some economies have conducted media campaigns and prepared exhibitions to heighten awareness.

- *Programme evaluation and measurement:* To help monitor progress and respond to the changing nature of counterfeiting and piracy, policies and programmes need to be reviewed regularly. A number of governments have developed regular monitoring or reporting schemes and have published findings; many regularly collect and disseminate statistical information providing insights into the situation.[102]

- *Industry co-operation:* Government co-operation with industry is essential, as (i) right holders have the technical expertise to distinguish counterfeits from original products, and (ii) industry may have additional information regarding the functioning of distribution channels. Efforts to step up co-operation are still at the infant stage in many economies, although they could benefit from being further increased.[103]

5.7.4 Enhancing industry Initiative

Industry efforts to combat counterfeiting and piracy include (i) supporting research and analysis of issues related to counterfeiting and piracy, (ii) promoting awareness; (iii) pursuing IPR violators in courts; (iv) supporting government efforts to combat counterfeiting and piracy; and (v) taking action to make it harder for pirates and counterfeiters to copy and market their products (such as through technology, etc.).

[101] World Customs Organization, above n 5.

[102] Hossain, above n 46, 10.

[103] Ibid.

Efforts being taken by industry to combat counterfeiting and piracy are being pursued at the firm and sector levels, as well as across sectors. A number of cross sector initiatives have an important international dimension (Box 5.4).

Box 5.4

Business Alliance to Stop Counterfeiting and Piracy (BASCAP)

The BASCAP, which was launched in early 2005 under the auspices of the International Chamber of Commerce (ICC), is one of the more recent and comprehensive global initiatives launched by industry. It seeks to bring firms together to pursue a more unified approach to combating counterfeiting and piracy. Its efforts include the creation of platforms for exchanging information on the counterfeiting and piracy situation in different economies and sectors, and for sharing information on effective brand protection techniques. It also seeks to provide stakeholders with improved information on the efforts being taken to address issues, with a view towards enhancing co-ordination. At the same time, research projects are being carried out to provide more effective methods for evaluating the counterfeiting and piracy situation in different economies. On the public policy front, efforts are being made to more effectively communicate the economic and social costs of counterfeiting and piracy to governments and the general public.

A 2007 BASCAP Global survey on Counterfeiting and Piracy revealed that industry efforts have mainly focused on initiatives to develop technologies to combat infringement. Resources have also been directed to aiding enforcement and improvising awareness, but to a lesser extent.

Source: ICC[104]

Collaboration and Cooperation

Many industry groups and associations have developed specific activities to assist in uncovering and dealing with counterfeiting and piracy. Such groups provide central

[104] ICC, *International Chamber of Commerce: BASCAP* <http://www.iccwbo.org/advocacy-codes-and-rules/bascap/welcome-to-bascap/> (accessed on 10 May 2013).

reference points that allow the industry sectors to share resources, information and experience, as well as providing a focus for interaction with government and enforcement authorities. Additionally, some of these industry groups also carry out surveillance, investigation and prosecution of producers and sellers of counterfeited and pirated goods.

Firms have recognised the importance of co-operation with government and with each other to strengthen enforcement efforts. In areas where counterfeit and pirated goods are being produced, this co-operation extends to supporting the activities of police in locating facilities and carrying out raids.[105] With respect to imported items, industries are co-operating with customs and other enforcement authorities to identify and intercept counterfeited and pirated goods. In both cases, most industry sectors take an active interest in subsequent civil action and prosecution.

Training and Awareness

Increased education of public officials, customs and law enforcement officers and consumers is an important aspect of industry efforts to combat counterfeiting and piracy. This kind of education is designed to increase the effectiveness of investigative efforts and prosecutions, and discourage consumers from buying counterfeited and pirated goods.

Authentication of Technologies

It has become easier for counterfeiters and pirates to deceive consumers through high quality packaging and/or through fake products that are virtually impossible to distinguish from authentic merchandise.[106] In the case of trademark infringement, brand owners are constantly looking for cost-effective ways to provide retailers and end-users with a means to determine whether the products they have purchased are authentic. A number of companies are developing technologies to facilitate authentication and/or detection of genuine vs. fake products. The technologies generally take two basic forms – those that are used to authenticate products and those that are used to track and trace the movement of products through supply chains. While a range of these technologies have been introduced

[105] Hossain, above n 46, 12.

[106] Green and Smith, above n 54, 101.

in the last several years, their broad use and success has been limited by a variety of factors, including the ability of counterfeiters and pirates to adapt or copy the technologies.

Improving Supply-Chain Management System

One of the key challenges that counterfeiters and pirates face is distribution of their products.[107] Rights holders can help limit the extent to which this occurs by vigorously overseeing the movement of their products from production centres to retail sites. There is a related need to work actively with suppliers, distributors, retailers and consumers to encourage them to be vigilant in acquiring items.

[107] Ibid, 103.

CHAPTER 6

CONSLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter underscores the key findings from each of the preceding chapters and presents them in the form of conclusion. Subsequently, the chapter puts forward a list of possible policy recommendations in the context of facilitating trade through border enforcement of intellectual property rights (IPRs). These recommendations may fall in different implementation categories, namely, short-term, medium term and long-term. It is expected, irrespective of the required time frame, that gradual and methodological implementation of these recommendations will create a stronger IP regime protected under the vigilant sights of the national Customs administrations and the relevant international agencies.

Another issue that is addressed while formulating the recommendations is their suitability according to countries in different stages of socio-economic development. There cannot be a one-size fits all approach in putting regulatory measures to protect national borders by strengthening intellectual property right (IPR) enforcement. Members of the World Trade Organization (WTO) are characterised by their diversity and uniqueness. Hence, any prescription for trade facilitation needs to be tailored according to the reality faced by these states.

Lastly, the recommendations presented in this concluding chapter concern not only governments of the Member states, but also the private sector, donor agencies, international development organisations and grassroots level Non-Government Organisations (NGOs). Ensuring and sustaining a safe and secured national border cannot be the task of one single law enforcement agency. It requires a platform where all the different stakeholders, within and beyond national boundaries, need to join hands to abolish the menace of IPR infringement in the context of international trade.

6.2 Trade Facilitation

It needs to be recognised that while businesses are facing a large number of administrative, regulatory, legislative and policy-related bottlenecks, the lack of available resources sometimes makes it challenging for government to address such private sector concerns in a timely manner. Moreover, uncertainty over a successful completion of the Doha Development Round (DDR) negotiations in the WTO also poses strategic challenges for government in terms of policy formulation.

6.2.1 Establishing a Single Window

Establishment of a single window can be viewed as an important milestone towards achieving a modern Customs administration. Such a facility would be ideally accessible by any Customs officer in their respective work stations to view and scrutinise information related to applications made for Customs clearance and/or intellectual property (IP) notification. All such information are stored in the database of the single window and will provide instant information where the Customs may think it necessary to get in touch with the IP right holder. Application of the single window system for IP will ensure graduation towards a paperless Customs administration.

In order the put in place a single window system, respective governments will need to ensure to that they have access to adequate funding for infrastructural requirements and human resources for implementation of the system on the ground. Success of any such endeavour will depend largely on governments' ability to acquire and install the necessary equipment, and employ, and train appropriate staff for data input and preservation. Moreover, it is of paramount importance that quality and security of the system is regularly maintained and upgraded.

Applicant should have the access to file applications electronically and update details as and when required.[1] This is particularly important in view of the fact that both general public and the internal enforcement agency have access to the online database. On such an

[1] Council Regulation (EC) No. 1383/2003 Art. 5(3). Where electronic data exchange systems exist, the member states shall encourage right-holders to lodge applications electronically.

open platform, it is more important to ensure confidentiality and internal control to avoid any unauthorised access to sensitive data and enforcement elements.

Countries that have agencies receiving patent and trademark applications and providing copyright services currently have data repositories of their own with information critical for Customs support. Establishing links between the various copyright, patent and trademark databases from such relevant agency databases can therefore create a hub of IPR information that are legitimate as well as frequently updated.[2] In many countries, the patent, trademark and copyright offices may have greater automation and can provide support to a customs IPR database. The IPR databases linking technology can further aid IPR owners by simplifying the process of applying for border enforcement to the extent that the electronic filing system would be able to retrieve details of IPR registration with just key inputs like copyright registration number or trademark registration number.[3]

With coordination between relevant IPRs offices' application systems and Customs administration it can be made possible to allow IPR owners of countries that have currently extended border enforcement to IPRs beyond copyrights and trademarks, to enlist for border protection as well when filing a customs application or during renewals. In addition to application for trademarks, patents or any other IPRs, IPR owners filing applications for border enforcement would expect to have an upgraded process receiving all necessary information for enforcement rather than being limited to the basic data usually required for fundamental IPR. The merged system would effectively require exclusive and optional forms for requesting border enforcement at the relevant IP offices' application systems.

In recent time such technical upgrades and migration will be achievable given the necessary resources, capital and cooperation between various agencies that individually have very different operational objectives. The implementation of database merger should however hold precedence on the basis of how the system automation of filing applications will benefit existing processes especially where administrative support is limited.

[2] In view of the variety of national government agencies that exist the use of terms such as the 'Industrial Property Office' or 'national intellectual property office', may not adequately capture the notion of an agency that is responsible for all forms of intellectual property.

[3] Understanding that the Berne Convention eliminates formalities, such as, the requirement to register copyrights, discussed in previous chapters, the reference to a copyright registration is made here only to the extent that some copyright owners may have registrations and this point is used for illustrative purposes.

While automation of Customs procedures is considered to be a positive milestone in ensuring implementation of IT in trade facilitation, a single-window initiative must be linked to all government agencies, such as various ministries and quality-testing institutes. In an era of paperless trade, limited implementation of single window cannot solve the problem. To that end, automation needs to be upgraded to the level of establishing a holistic single window. This can then be expanded to creating a regional single window to facilitate communication among different Customs agencies in a region. The Asia-Pacific Economic Cooperation (APEC) Single Window initiative can be a reference point in this regard.

Through productive use of information technology it will be possible to expedite customs clearance procedure. Proper utilisation of the system automation will not only help ensure optimal levels in operation efficiency and service effectiveness but will also enhance transparency of revenue collections and help eradicate the issue of corruption within customs officials.

6.2.2 Expediting the Automation Process

Communication is essential for agencies enforcing any laws and regulations including IPR, regardless if a nationwide computerised system is available or not. According to the World Customs Organization (WCO) Model Legislation it is recommended for Customs administrations to regularly notify all relevant Customs offices details regarding approval of an application and details of the application in order to ensure border enforcement.[4] It is the responsibility of both the enforcement agencies as well as the IPR owners to provide detailed and regularly updated information for effective enforcement of IPR at the border. It is the responsibility of both the enforcement agencies as well as the IPR owners to provide detailed and regularly updated information for effective enforcement of IPR at the border.

The discussion so far has focused on central Customs offices providing data to all relevant field office special emphasis has to be placed on the importance of two-way

[4] WCO, 'Model Provisions for National Legislation to Implement Fair and Effective Border Measures Consistent with the Agreement on Trade-Related Aspects of Intellectual Property Rights' (WCO, 2004) Art. 4(3).

communication such as, Customs or other enforcement officials at the operational field offices should also regularly input data in order to provide information to the central office where information and intelligence are gathered and to regularly notify other customs offices regarding illegal practices of importers to elude border enforcement. While communication and information sharing exists regarding narcotics, firearms, and other contraband, efforts to sharing data related to IPR violations should also be encouraged to increase effectiveness of enforcement.

The WCO Model Legislations does not focus on the necessity of a computerised system. However, it clearly recommends creating a centralised system for management of applications submitted to Customs offices requesting border enforcement.[5]

The advantages of such tools can be further seen with the US Customs and Border Protection (CBP) IPR database development. It has made information about IP readily available and easily accessible to both the private sector and the enforcement officials. Allowing access to contact information has made it possible for enforcement officials to communicate directly with owners or the designated representatives for any queries regarding the IP in question. Also having images where possible has made it possible to hold comparisons between authentic goods and suspected counterfeit in order to determine they should be released or detailed. And more swiftly than others transparency has proven to have immediate positive impact.

A centralised database, where implemented should be a single application for not only submission and approval border enforcement requests but also means to give any acceptances national effect. And although highly favourable, the advantages of computerised database systems does add to the burdens of administrative and infrastructure restructuring on agencies. Methods of overcoming this shortcoming include continuous capacity building training, regular monitoring of the progress achieved and technology transfer. This suggestion has been further elaborated later in the chapter.

[5] Ibid Art. 1(3).

Revisiting National Infrastructure

It would be inaccurate to assume that all Customs administrations will be able to acquire necessary resource and infrastructure for creating a national Customs IPR database linking with all operational Customs offices anywhere in the country enable Customs officers to conduct searcher. It may even be difficult for some Customs administration to provide latest technology enable workstations for conducting IPR enforcement.

Even if a Customs administration is not able to implement automation of the IPR operations the possibility to have a centralised system still exists. As long as the office where applications are being processed is equipped with a computer, a central depository can be created with all the available data. A central computer would be sufficient to contain and manage all essential application information while supported by paper-based filing and records.

It is likely that a burden sharing arrangement with IPR owners would be devised to implement the centralised paper system. Notices of acceptance could be issued to the IPR owners by the central office with copies of the acceptance notice being delivered to regional offices and ports via fax or mailed. Up to date records will then be available, as the Customs offices will be responsible for maintaining paper files of local IPR application acceptance.

With such system at work, both the Customs port offices and the central office maintaining the IPR records needs to be in contact enabling central office to provide necessary documents from IPR files whenever requested by the field offices. In absence of an electronic infrastructure critical elements of a border enforcement system relies firstly, on the ability of central office to efficiently handle application processing, distribution of application acceptance information to field offices and secondly, on an IPR owning community to actively provide trainings for front-line Customs officers in field offices.

A computerised central database at the very least will greatly expedite response times required by the application processing centres to provide answers to queries regarding who is the owner of the IPR record, contact information of the IPR owner, type of recorded IPR, what goods are to be protected and any other basic information. A notable fact is that

such pre-computer network system discussed here was in operation in the United States until around the year 1991.[6]

To have fast implementation of system automation projects at the Customs stations Governments would have to complete bureaucratic formalities in a timely fashion. Also in the interest of advancing payments of customs duty via electronic fund transfers process by importers and exporters any required administrative regulations would have to be published for public knowledge and awareness.

Understanding the International Setting

In regards to international database two distinctive outlooks need to be considered. First is exclusively between intergovernmental organisations and customs administrations. Second could be an international system that is concerned with the IPR owners; specifically the capacity to standardize data from application submitted by IPR owners on to an international database.

The WCO recommends conducting risk analysis and risk management would facilitate identification of goods that could be in violation of IPR encouraging towards implementation of an international, centralised database for IPR enforcement.[7] The WCO proposition also includes that to improve enforcement efforts the national customs administrations should actively use the Customs Enforcement Network (CEN).[8] While relying on the use of computer systems it is necessary to develop computer-based IPR risk assessment processes. With its efforts the WCO emphasises towards the need of global systems where national customs administrations will be dependent on advance risk

[6] The US Customs and Border Protection's Intellectual Property Rights (IPR) branch was formed after Customs management was convinced of the importance of protecting IPR and the work of the IPRs task force. The IPR Branch became an official part of the Office of Regulations & Rulings in the early 1990s. At that time, the database of recorded copyrights and trademarks was a paper database. The conversion from paper-based to electronic recordation system occurred in the early 1990s. Under the old system, IPR owners took responsibility for providing additional materials to the port Customs officers.

[7] Provisional Standards Employed by Customs for Uniform Rights Enforcement (SECURE), World Customs Organization (WCO). Although the WCO's SECURE initiative has been replaced, the risk analysis and risk management activities of any customs administrations is critical to its effectiveness in detecting legal and regulatory violations.

[8] A communications tool that WCO member customs administrations may use to combat counterfeiting and piracy. For details, see http://www.wcoomd.org/home_wco_topics_epoverviewboxes_responsibilities_eipr.htm.

analysis techniques and electronic information sharing methods. Success of the CEN relies upon the ability of national customs administration to acquire necessary equipment, provide sufficient training on the use and maintenance of the equipment and getting updates regularly to make effective use of the system. The system seems to be suitable for internal use by national customs administrations and the WCO.

With WCO proposing various systems for effective IPR enforcements and the continued trading in infringing goods internationally places pressures on specific governments to instantaneously take measures. For example, to tackle the excessive trading of counterfeit goods from China to the European ports, the Chinese officials and European Union have come to an understanding to form an intelligence network through which Chinese and European ports can be linked.[9]

The purpose of any system should be to encourage IPR owners to provide information to and be part of international computerised systems hosted by WCO. Where national electronic IPR Customs databases exists the question remains whether the Customs administrations are prepared to merge them or link through the WCO allowing all Custom administrations and relevant law enforcement agencies to utilise the accumulated information for effective international enforcement.

All global Customs IPR databases are allowed to derive from the process standardization efforts made by existing system such as, the procedures referenced by the European Council (EC) Regulation in respect to the Community IPRs for border protection. Through patent and trademark procedure treaties efforts for IPR standardizations have also begun. Without doubt it can be established that components of both IPR-related and Non-IPR – related contribute towards increased efficiency of IPR enforcement.

It is safe to assume that sufficient levels of interest towards constructing international databases exists in Government Customs administrations and multinational companies as well. They can very well achieve the goal by linking and modifying their existing databases. Multinational companies in the private sector are concerned about protecting

[9] EC, 'Action Plan Concerning EU-Chian Customs Cooperation on IPR (2014-2017)' (2014) <http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/international_customs_agreements/china/action_plan_eu_china_ipr_2014_2017.pdf> (accessed on 18 September 2014).

their trademarks, copyrights or both from duplicate brand names in various countries. Thus, a global database is important for the purpose of protecting the IP in such circumstances.

Common data elements are usually easy to recognize. A study of existing Customs IPR databases are expected to return many common data fields as listed below:[10]

- Name of the IP owner
- Contact information for IPR owner's local representative
- Type of IP protected (trademark, copyright or other)
- Registration number(s) for trademark(s)
- Class(es) for which a particular trademark is registered
- Country(ies) in which a particular trademark is registered
- Primary and secondary contacts for each country/region
- Country(ies) of legitimate manufacture (example of information that would be in restricted data field only for law enforcement)
- Keyword searches
- Type of product(s)

In addition to the above, the data fields that would not be displayed publicly should also be included in the database, such as names of the suspected manufacturers, importers, and exporters. It should also be possible to store images in these datasets, mainly pictures of infringing merchandise seized or discovered in previous cases. Owners of IP should also provide pictures for comparison with suspected counterfeit merchandise. Providing these visual aids will support the enforcement authorities in their attempt to decide if shipments should be released or seized.

Based on these information the companies can determine if a uniform application process should be implemented internationally while including sections in the applications that are specific to national data needs such as, procedures for bonding, requesting protection against parallel imports and application fees etc. IPR owners can then submit application to countries where they are seeking the protection.

[10] Timothy P. Trainer, 'International Intellectual Property Protection: SOP (Standards, Observations & Perceptions)' (International Anti-Counterfeiting Coalition, 2002) <http://www.iacc.org/>.

Inspired from the procedures in existing treaties such as, *Trademark Law Treaty* and *Madrid Protocol*, multinational corporations wanting to obtain protection for major IPR assets would in theory be able to file several applications due to the uniformity of national requirements[11] and also use a central depository to file applications. The central depository would then have to circulate information on the file and expend the application fees.[12] In their application the IPR owners would ideally be able to request border measure and specify for which countries they are seeking border protection. Finally the payment of application fees would be done through a central body.

Due to the development of such database the need for unique enforcement have emerged and hence no mindless copies of existing procedures will make do. Administrative issues would have to be mitigated through assessment of previous efforts.

By achieving cooperation between multinationals, isolating intergovernmental organisations willing to support the concept and funding the capital investments required, implementation would be possible. A study of available border enforcement related databases would also be required as part of the implementation. Identifying the similarities between applications submitted by IPR owners from various countries would be important. Relevant information about various existing systems have already been either published in journal and periodicals or gathered by associations and / or intergovernmental organisations.

The electronic database of US CBP can be used as a model. It is available to any Custom office and officials in United States and located in various US Embassies. Partially the US CBP database is also available to public such as, sections of copyright or trademark recordation are not available for public viewing allowing specific information to be input for enforcement officials.

[11] The Trademark law Treaty (TLT), adopted on 27 October 1994, attempts to harmonise the trademark application procedures of the signatory countries. Thus, those adhering to the TLT cannot ask for more information on an application than the treaty permits. The TLT is designed to streamline the process of filing applications and related documents. See http://www.wipo.org/treaties/doc/english/s-tlt.doc.

[12] The Madrid Protocol (1989) seeks to allow companies to file a trademark application for a foreign trademark through the company's domestic office in order to simplify the international filing process and fee payment. Essentially, the Protocol sets up a one-stop registration system. The protocol allows an international registration to be granted upon a national application/registration. See http://www.wipo.int/madrid/en/.

In actuality, without support from specific multinational, intergovernmental organisations and strategic government partners the implementation of a shared global border enforcement database initiative would not be successful.

All IPR owners who have fallen victim to regional or international piracy and counterfeiting should reflect on the benefits of an international database. While international agreements create obligations to implement these initiatives Customs officials and other law enforcement entities too should consider it and obtain access to the system data.

In the face of current inadequacies in the coordination of cross-border enforcement need for a more consolidated and standardised cross-border database is highly regarded.

Responding to Regional Best Practices

New levels of border enforcement procedures have been introduced with the allowance to own Community IPR in Europe. An outcome of this is the European Council (EC) Regulation has providing Community-wise protection of selected IPRs.[13] In Article 5(4) of the regulation it implies that owner of a Community IPR, whilst applying in a member state, is also able to request border protection through any other member state Customs authorities.

Validity period for applications accepted for protection of a Community IPR is one year.[14] Upon acceptance of the application the Customs administration of the member state must communicate the decision to the all Customs offices under that state's Customs administration. If the application request is for protection of a Community IPR in other member states the decision of acceptance must communicated to designated member state Customs administration.[15] Alternatively the IPR owner upon receiving acceptance for protection of a Community IPR in other member states can also notify designated Customs administration of the application decision. Relevant to this type of applications, additional

[13] EC, above n 1, Art. 5(4). Community trademarks, design right, plant variety, designation of origin, geographical indications are subject to protection at the community level.

[14] Ibid Art. 8(2).

[15] Ibid Art. 8(2).

communications would be required between the office assessing the application and the Customs offices enforcing protection acts once detentions are in effect.[16]

Since the EC Regulation regarding border actions and the Community IPR procedures are still a new development, IPR owners should closely monitor implementation initiatives in this aspect of Regulation.[17]

6.2.3 Ensuring Effective Participation in WTO Negotiations

WTO Member states need to closely monitor the developments taking place in the ongoing WTO-DDR negotiations. The submission of a needs-based proposal to the Negotiating Group on Trade Facilitation is also required on an urgent basis. To this end, careful scrutiny of the ongoing WTO negotiations regarding trade facilitation, and the examination of how these negotiations could help developing and least developed countries by the review of the proposals in the WTO negotiations and their possible implications, should be carried out at the national level.

LDC-friendly Negotiations under the DDR

Any modality for identification of trade facilitation needs and cost must be finalised in consultation with LDC Members. The following issues may be considered:

- In order to realise full and faithful operationalisation of flexibilities (known as the special and differential treatment or S&DT) agreed in the Modalities for Negotiations on Trade Facilitation, LDC Members will only be required to undertake commitments to the extent consistent with their individual development, financial and trade needs or their administrative and institutional capabilities.
- Adequate financial and technical assistance and capacity building support for infrastructure development are the primary requirements for the LDCs to meaningfully integrate themselves into the global trade regime. Besides, sustained funding flow is a crucial issue. Hence, members of the apex trade body must come

[16] Ibid Art. 9.

[17] See http://ec.europa.eu/taxation_customs/common/about/welcome/index_en.htm for Commission contact information. See also O. Vrins and M. Schneider (eds), *Enforcement of intellectual property rights through border measures* (Oxford University Press, 2006).

up with a needs-based assistance programme to take the current negotiations to any further milestone.

- Flexibility, especially in terms of transitional periods, in implementing specific commitments in a progressive manner must be provided to the LDCs as part of the commitment of S&DT.
- Necessary technical assistance for harmonising and standardising documentation procedures will be an integral part of any agreement on trade facilitation. Successful implementation of international standards can significantly decrease and simplify import and export documentation requirements.
- Detailed quantitative assessment in terms of cost implications in establishing enquiry points, and risk management and post clearance audit systems must be carried out prior to embarking upon any agreement.
- Submissions by the developed Members regarding enforcement of legal obligations such as 'binding advance rulings' is a major concern for the LDCs. Any agreement on such issues would mean that an act of non-compliance may expose LDCs like Bangladesh to the WTO dispute settlement system.
- There needs to be adequate support for establishment of a cross-border cooperation scheme that would enable landlocked Members and their neighbouring Members to consult and cooperate on the issue of traffic in transit.

While negotiations under the ambit of the WTO are crucial for states to make a difference in their Customs regimes, a number of initiatives need to be put in place by governments to facilitate such improvement. These include, among others, the followings:

Simplification of rules and procedures related to export and import: One specific issue in this context is the customs valuation procedure. The participation of the private sector in formulation of, and amendment to, customs laws and regulations has to be ensured to create a more enabling business competitiveness environment. Development of adequate infrastructure at all the ports should be completed within the shortest possible time period for the country's business to catch up with the international system.

Ensuring sufficient training for border agency personnel: Border agency personnel need to be trained in a manner to expedite all customs related formalities at ports and borders.

Government should ensure a corruption free administration to deal with issues related to international trade. This issue is also pertinent from the S&DT point of view. A WTO agreement with particular emphasis on human resource capacity building in the LDCs will be a welcoming initiative.

Adopting pragmatic policy measures: Time-bound and result-oriented policy measures and strategies need be developed to deal with the emanating challenges from the ongoing WTO negotiations on trade facilitation. While the Bali Agreement on Trade Facilitation has brought some respite to the much struggling LDCs and developing countries, the real result of such endeavour is yet to be garnered. This particularly owes to the division among the WTO members with regard to lack of understanding in supply-demand of technology transfer.

6.3 Risk Management at National Borders

In view of the evolving nature of the multilateral trading system and the current state of risk management system in place in countries, particularly the developing and least developed countries, the following set of recommendations may be taken into consideration to further strengthen the risk management framework.

1. Undertaking customs modernisation projects with special focus on strengthening data mining by way of introducing state of the art customs data software.
2. Improving human resource management by implementing a strategy that will
    a. Redefine functions and job responsibilities;
    b. Establish new recruitment standards;
    c. Delineate clear career development paths;
    d. Establish an effective training program;
    e. Improve internal communications;
    f. Adopt other modern practices including pay incentives to motivate staff; and
    g. Ensure greater flexibility for the Customs in the management of its human resources in order to motivate staff, improve productivity and strengthen professionalism and integrity.
3. Reviewing of the existing laws and regulations with a view to modernising the legal and regulatory framework. The approach will be to initially focus on priority

amendments and eventually to rewrite the laws to ensure clarity, transparency and predictability.

4. Make more productive use of information technology as a way to increase the efficiency, effectiveness and transparency of revenue collections by expediting customs clearance procedures.

However, strengthening the risk management framework alone will not suffice the requirements for satisfactory performance of the Customs in the global context. The developed risk management framework has to be incorporated into the existing compliance management framework. It is more important due to the fact that despite the large number of positive measures adopted and implemented by the Customs, the existence and pervasiveness of corruption and administrative bottlenecks are highly criticized in the context of the Customs authorities in a number of developing and least developed countries. [18] In view of this, the following recommendations might be taken into consideration to ensure effective operation of the risk-based compliance management system:

- Establish an IPR cell within the Customs Office to ensure enforcement the national legislations on IPR.
- Ensure effective utilisation of the automated system by setting up required infrastructure and providing training to Customs officials and members of the private sector including the traders, shipping agents, freight forwarders, etc. This is highly important to ensure informed compliance.
- Develop an effective customs-to-business consultation mechanism.
- Data-mining needs to be strengthened.
- Introduce and develop the concept of Authorised Economic Operator (AEO) to facilitate trade.
- Introduce the option of periodic payment of duty for the compliant traders.

The challenge for Customs nowadays is to offer the best possible service to traders and citizens in a planet characterised by economic globalisation, by the rapidly increasing trade

[18] Debapriya Bhattacharya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006) 63.

flows and by the worldwide security threats. This was significantly highlighted by Laszlo Kovacs in the following manner:

> The economic operators ask for a quicker release of goods. The citizens fear the threats. The consumers want safe products. Against this background, Customs are confronted with apparently contradictory objectives: the facilitation of trade calling for faster control of merchandise flows, and the security of our citizens calling for more effective controls. The challenge is to strike the right balance between the two![19]

Therefore, tight control of transportation of illicit products is a major way to provide better health protection and safety to global consumers. In this context, the Australian Customs plays a vital role in community protection. By adhering to the legislative base and ensuring effective implementation of technology and available resources, the Customs contributes to deterring and detecting unlawful movement of goods and people and, thereby, protects consumer's health and safety. All these are manifestation of good governance.

6.3.1 Ensuring Better Risk Management Procedures

A state-of-the-art automation system needs to be put in place to ensure customs 'data mining'. This is critical not only in terms of simplifying document lodgement, but also to ensure effective risk management procedures including: (a) screening shipments against predetermined risk criteria based on documents lodged; (b) identifying the nature and level of risk, and prioritizing accordingly; and (c) resolving the risk. Although the green, yellow and red channel concepts are in operation, they are mainly implemented on the basis of self-determination by the customs officials. The customs database needs to be designed in such way that it maintains historic data on importers and exporters, which will eventually help to determine the level of risk based on the compliance record of the traders.

Introducing the Concept of Authorised Economic Operator (AEO)

AEO or 'authorised trader' refers to businesses that are sufficiently well-known and trusted by the customs authorities for them to be exempted from ordinary controls, and subject to much lighter or flexible procedures and requirements. Such businesses are frequent and

[19] Syed Saifuddin Hossain, 'Bangladesh Customs: Managing Risk for Better Trade' (2009) 4(2) *Global Trade and Customs Journal* 47.

reliable traders, with good compliance records of accurate declarations and timely payments. Member countries should formulate a set of criteria to determine traders' eligibility as AEOs. The underlying objective of the initiative would be to enable importers and exporters to benefit from expedited clearance and increased security for shipments entering or leaving the region. Such benefits could also include the option of periodic payment of duty for compliant traders. The AEO programme was officially launched in Europe on 1 January 2008. As mentioned above, the WCO Framework of Standards to secure and facilitate global trade (known as the SAFE Framework) details the conditions and requirements for AEOs.

Fostering Customs-to-Customs Cooperation

Harmonisation of customs procedures with international standards largely depends on the degree of cooperation among the customs authorities in various countries. Developing and least developed countries, in strategic partnership with its regional neighbours, will need to put in place a mechanism to ensure proper and adequate exchange of information with customs authorities of other countries. A policy should also be developed on introducing periodic training programmes whereby the customs authority in one country, individually or jointly with another customs administration, will train officials of customs and other border agencies from member countries of regional and international association on the latest relevant developments, both within and outside the regional blocs. Such measures are crucial not only to ensuring supply chain security, but also for faster clearance of goods at the ports.

Ensuring Customs-to-Business Cooperation

With a view to ensuring effective utilisation of the automated system, governments needs to set up the necessary infrastructure as well as train customs officials and representatives of the private sector (including small and medium enterprises or SME representatives, shipping agents and freight forwarders). This is very important, not only to ensure informed compliance on the part of the business community, but also to strengthen their relationship with the customs authorities.[20] A sound and effective customs-to-business

[20] Syed Saifuddin Hossain, Uttam Deb and Muhammad Al Amin, 'Impact of information technology in trade facilitation on small and medium-sized enterprises in Bangladesh' (ARTNeT Working Paper Series, No. 76, UNESCAP, 2009) 49.

consultation mechanism should also be developed to ensure adequate participation by all relevant stakeholders.

Strengthening Business-to-Business Relationships

The launch of the SME Foundation in mid-2007 has earned government appreciation from all segments of the business community. One of the landmark programmes of the Foundation was the establishment of 32 helpline centres for SMEs to use the Internet and receive training on the use of information technology (IT). In addition, the Foundation should ensure that new members with the potential to perform better in international markets receive guidance and assistance from the more experienced international SMEs with regard to identifying and clarifying the problems faced on the international front.[21]

Identifying Needs and Priorities

The previous sections of this paper have raised a number of critical issues that need immediate attention from policy makers. Taking these issues into account, governments should carry out a needs assessment study, taking advantage of the needs assessment tool developed by OECD, with particular focus on the concerns of the SMEs in relation to trade facilitation. Priorities will then have to be set for resource allocation.

6.3.2 National Cooperation and Coordination

Coordination among the various agencies and stakeholder groups ensure better possibilities of identifying and countering border infringement of IPRs. As has been in previous chapters, a number of countries including Australia, US, EU and Switzerland have created meaningful coordination among various national entities. These include relevant ministries and agencies, such as the industrial property offices, customs, police and justice. The whole exercise becomes more efficient when the direct stake-holders coordinate with the law enforcing agencies. This calls for businesses, associations of right holders, retail and consumer associations, interest groups to strengthen the coordination with a view to develop a proper framework of cooperation on enforcement action to protect national borders from infringement of IPRs in international trade. Such cooperation needs to aim at:

[21] L.R. Lester and M. Terry, 'Removing barriers to SME access to international markets: OECD-APEC global study' (2008) <http://sbaer.uca.edu/research/usasbe/2008/pdf/PaperID65.pdf> (accessed 12 January 2013).

- Coordination of enforcement activities;
- Development of greater expertise, particularly among customs officers at all points of import and export;
- Improvement in general liaison procedures with all national agencies involved in enforcement;
- Enhancement of contacts with right holders and their representative organisations;
- Establishment of benchmarks with specialist anti-counterfeiting units in other Customs administrations; and
- Participation in public awareness campaigns.

The exchange of officials is considered to have produced good results, allowing them to benchmark their performance and structure against specialist units that operate in other Member states. Right holders should be encouraged to contribute to the training of customs staff in the identification of counterfeit and pirated goods, and in intelligence reporting from their own sources to assist officers in identifying consignments of counterfeit or pirated goods.

The positive impact of national level coordination among border agencies can surely bring positive results in the fight against border infringement of IPRs.[22] However, the key to success is to ensure that both the public and private sectors are equally engaged in this process.

6.3.3 International Cooperation

In some Member States, cooperation with international intergovernmental organisations has resulted in the creation of bilateral cooperation and support programs in the field of enforcement. It has been suggested that industrialised Member States be requested to create an international computer network covering the ownership of merchandise that passes through customs. It was observed that the same IPRs registered in a number of countries could be affected by the same types of infringements. Information networks could consequently be useful for the exchange of information on infringement cases.

[22] Hal Martin, 'Enforcing Intellectual Property Rights: Estimating the Optimal Level of Enforcing Patent Protection' (2010) 19 *Issues in Political Economy* 23; Hossain, above n 19.

Overtime, we have witnessed the emergence of various technological tools (such as single window initiative, and the Automated System of Customs Data or ASYCUDA) enabling better international cooperation among customs across different countries.[23] The WCO is perhaps the key institution that has designed a number of tools and resources to tackle the menace of IPR infringement at national borders. Nevertheless, there is no denying that complete abolition of such crime is still a far cry. The fast pace of technological advancement and increasing complexity of international trade can be identified as among the factors contributing to such limitations.

WTO Members must take into account the developments being taken place under the recently concluded Agreement on Trans-Pacific Partnership (TPP) of 2015. Besides, the forthcoming Agreement on Trans-Atlantic Trade and Investment Partnership (TTIP) will also be an area of interest in this context. It needs to be seen that these agreements do not create any TRIPS-plus conditions which may put the developing and least-developed countries under pressure. The major criticism of both TPP and TTIP have been that these negotiations are, and have been, driven by big business and corporations.[24] Some authorities even considered TPP and negotiations under TTIP as a platform to trade away the rights of IP stakeholders.[25] Hence, close monitoring of the developments taking place under these two agreements will be important for LDCs and developing countries to ensure that they are not burdened with TRIPS-plus measures which do not comply with the WTO-TRIPS agreement.

6.3.4 Public Awareness and Right-holders Cooperation

One may argue that IPR infringed product brings cheaper versions of costly items. However, as discussed in Chapter 5, the negative socio-economic impacts of IPR infringement completely outweighs that mere benefit. Job loss, organised crime danger to public health and safety are only a few of the debilitating effects of trade of IPR infringed

[23] Syed Saifuddin Hossain, 'Simplification of Trade Processes and Procedures in Bangladesh: Results from Business Process Analysis (BPA) of Export and Import Procedures for Selected Commodities' (Paper presented at the Dialogue on Trade Promotion Through Trade Facilitation, Dhaka, 21 October 2010) 19.

[24] For details, see https://www.getup.org.au/campaigns/tpp/tpp/the-dirtiest-deal-you-ve-never-heard-of; and http://www.smh.com.au/business/the-economy/tpp-will-the-transpacific-partnership-really-benefit-australia-20151006-gk24so.html.

[25] https://www.choice.com.au/shopping/consumer-rights-and-advice/your-rights/articles/tpp-secretly-trading-away-your-rights (accessed on 11 August 2015)

goods. In view of this, strong national campaign on anti-piracy and anti-counterfeiting needs to be used to raise awareness among general public and other stakeholders.

If we look at the socio-economic impacts of IPR infringement, there will be no doubt as to how important it is to create awareness among the members of the society regarding protection of IPR. As IPRs are ultimately private rights, right holders have the largest immediate financial stake in ensuring the protection of those rights. For this reason rights holders have been particularly willing to assist in enforcement efforts by providing information to assist in the identification of infringing products and in co-operating in awareness and training programmes.

The border control provisions of the TRIPS Agreement envisages that in the first place it will be the rights holders who will apply to the Customs authorities to intercept shipments of counterfeit and pirated products. Inevitability the rights holders will be in the best position to identify infringing products. Some rights holders provide Customs authorities with guides to the identification of genuine products, as well as with lists of authorised dealers in their products. Thus, Customs is put on notice when a shipment is directed towards a non-authorised dealer.

In 2000, China established the Quality Brands Protection Committee (QBPC) as a platform for right holder and the enforcement authorities to work together. It consists of 76 foreign companies, such as Compaq, Siemens and Kodak. These companies have a combined investments in China totalling about USD 14 billion.[26] The QBPC cooperates in the fight against counterfeiting with local administrations. In 2003 it introduced awards for the most successful anti-counterfeiting activities by 13 local administrations. Such encouragement surely plays an important motivating role for law enforcement agencies to put extra-efforts in their fight against IPR infringement.

6.3.5 Capacity Building by Providing Training and Education

Despite the efforts of governments of developed countries, the WIPO, WTO, and many other entities to provide IPRs border enforcement training around the world, training and education concerning IPR border enforcement is still needed on a massive scale. The

[26] QBPC, <http://www.qbpc.org.cn/article.php?pid=24> (accessed on 30 April 2012).

statistics, articles, and other sources reporting the volume of cross-border trade in infringing goods highlights the continuing need to develop training programs to train and educate border enforcement officials.

The training and education programs will need to address IPR issues in different ways to different audiences. At one level, the policy makers who will determine changes in law and regulations will need to have assistance in detailed analysis of how changes will be implemented at the operational level. The drafters of laws and regulations need to be aware of how the difference between calendar days and working days can raise serious issues at the implementation level.

Therefore, governments need to plan ahead for their own internal training programs. The internal training program requires IPR staff to deliver the training and provide information regarding the different types of IPR to be protected at the border and the procedures related to protecting the IPRs in accordance with domestic laws and rules.

From an operational perspective, major challenges exist. Customs officers are confronted with goods of all types crossing the border and many potential types of violations including IPR. Considering just copyrights and trademarks, today, the focus of copyright piracy seems to be content on discs, whether movies, music, software, or video games. While the different types of content on discs seem to attract the most attention, hard goods also infringe copyrights, such as toys and artistic works appearing on hard goods. The real challenge for Customs officers is in the enforcement of trademarks because every type of product conceivable bears or could bear a trademark.

The fact that trademark counterfeiting involves everything from toys and apparel to medicines and auto parts requires an active and ongoing training program that is provided by governments, intergovernmental organisations, and IPR owners. Governments and intergovernmental organisations can provide the general procedural training, but IPR owners need to be actively involved in providing more specific IPRs. In addition to the basics, training and education should also identify new practices used by pirates and counterfeiters, how they are adapting to new technology, how they are trying to evade detection, and any other tactics employed to get infringing goods into the stream of commerce.

Training is an ongoing endeavour. Because some Customs administrations routinely rotate their staff, because new Customs officers join the agency, and because of constant changes in products, new trademarks, and new IRP owners using border enforcement systems, the training and education never ends.

Finally, some consideration should be given to add a component to enforcement training that underscores the importance of IPR to the domestic economy and how enforcement is related to economic development. Although product identification and procedural discussions are important, other issues may need to be addressed in view of the growing trade in counterfeit and pirate products. All too often, training sessions tell enforcement officials that IPR is important, but fail to demonstrate how IPR is important.

Because enforcement actions are the end of the IPR process, it might be useful to explain the overall IPR process in order to increase the level of appreciation for IPR in general. Enforcement is at the end of the IPR process in that IPR is considered when a company considers a new product, develops the new product, takes steps to acquire the IPR, such as, file an application, advertise, promote, and market the product, distribute and sell the product, and, then, once the product has gained consumer acceptance and becomes a consumer favourite, the product, and, then, once the product has gained consumer acceptance and becomes a consumer favourite, the target of the infringer. Usually, it is after the product becomes the target of the infringer. Usually, it is after the product becomes the target of the infringer that IPR owners take aggressive steps to protect and enforce their rights by engaging Customs, police, and other enforcement authorities.

Some training components should underscore the importance of IPR to companies and the economy to raise awareness and appreciation. While not all IPR training and education sessions need to include such a component, some officials may benefit from a better understanding of when IPR considerations become important to IPR owners, how IPR contributes to companies success, and how that success contributes to the local economy. Eventually, the increased wealth of a local economy provides revenue to governments and the agencies of government.

The training and education component must also include regular update on international agreements concerning customs role in enhancing security at the national borders. For example, information about TPP, TTIP, TRIPS-plus conditions, various bilateral trade negotiations and international treaties should be regularly posted on Customs website. Member countries should have a dedicated department, perhaps with a relatively smaller team of 2 to 3 personnel, to execute this responsibility.

6.4 LDCs and Developing Countries in the Context of WTO-Dispute Settlement Understanding (DSU)

It is understandable that the major stumbling blocks hindering efficient participation of developing and LDC members in the WTO Dispute Settlement Body (DSB) in IP related matters are (a) lack of institutional and legal capacity in dealing with the issues of dispute settlement procedure, (b) financial inability to bear the expenses of lengthy and expensive legal procedures, and (c) the fear of deteriorating trade relationship with the developed members. It is this reality which should be taken into account to realise the opportunities available for overcoming any such hurdles and getting the right share from the apex trade regime. A number of possible strategies in this regards are stated below:

i. Pursue for consultation venues to be set up in the capital of the developing/LDC Member involved in the IP dispute whether as complainant or respondent.
ii. Strongly urging for good offices to be offered by the Director General in the event of failure in consultation. It should be ensured that a developed Member, party to a dispute, should not request panel formation unless the efforts by good offices fail in that matter.
iii. Article 8:10 should read: 'When a dispute is between a least-developed country member and a developed country Member the panel shall include *at least one panellist from a least-developed country Member* and, if the least-developed country member so requests, the panel shall include two panellists from least-developed country members.' [Equivalent wording is to be included for developing country Members].
iv. *Amicus curie* (friends of the court) briefs (written submissions by various civil society organisation, pressure groups, etc.) should be dealt with due importance and taken into cognisance in preparing panel or AB reports.

v. DSB must incorporate the provision to ensure that compensation to the developing/LDC party be provided by the developed party irrespective of the former's status as complainant or respondent. The DSB must strictly adhere to the commitment.

vi. The LDC Members should make effective use of all the capacity building opportunities and assistances extended to them multilaterally, bilaterally or institutionally. This includes taking assistance and support from the Advisory Centre on WTO Law (ACWL) which provides free and subsidised support to LDC Members.

vii. Adding to the context of capacity building, governments of the LDCs should monitor and explore every opportunity to enhance their institutional capacity by nominating more and more competent individuals for courses offered by the WTO, United Nations Conference on Trade and Development (UNCTAD), ACWL and any other organisation offering such courses on trade policy and law.

viii. It is a hard fact that educational institutions in most of the developing and least developed countries do not provide any special courses on trade law or commercial law. Steps can be taken for incorporation of such policy oriented and practical subjects particularly at the tertiary level. This will create awareness among the young scholars of these countries regarding various legal and regulatory issues existing in international trade.

ix. In the context of ever growing competition in international trade where comparative advantage is the key to success, LDCs should look for trade diversification, and high priority should be given to search potential markets of new products. This will minimise the concentration on one particular market for a single product; and, in effect, will minimise the risk of being subject to trade remedy measures by importing countries.

x. LDCs must act together as a forum to advance their interest in the ongoing negotiations in the WTO. These countries have to come up with concrete suggestions and pursue the developed and developing members to accept and incorporate the suggestions for necessary amendments in the rules and procedures of the DSU to bring those more in line with LDC interest.

6.5 IP Related Technical Assistance and Capacity Building

Although Article 67 of the TRIPS Agreement obliges developed WTO Members to provide technical and financial assistance to developing countries for the implementation of TRIPS, WIPO remains the largest provider of intellectual property related technical assistance. There are three basic reasons for this. *First*, WIPO administers over 20 intellectual property treaties each of which requires different measures to implement. This raises capacity and technical challenges for developing countries. *Secondly*, in 1995 WIPO entered into a cooperation agreement with the WTO to provide technical assistance for TRIPS implementation. Finally, WIPO, as one of the richest international organisations, obviously has much more resources to devote to intellectual property technical assistance than many multilateral and bilateral donors. The technical assistance activities of the organisation are coordinated under Cooperation for Development Division. Its aim is to enable developing countries all over the world to establish or modernise intellectual property system.[27] The WIPO World Wide Academy (WWA), which was established in 1998, also plays a role in WIPO's capacity building and technical assistance activities. The aim of the WWA is to serve as a centre for teaching, training, advice and research intellectual property.[28]

Objective of IP Related Technical Assistance and Capacity Building (TACB)

- Raising awareness on the importance of IP systems for economic and technological development;
- Assisting developing countries in establishing and strengthening their industrial property systems and institutions; and
- Supporting development of human resources in the field of industrial property.

Methods of TACB

- Organising workshops and seminars;
- Offering training courses in the donor country or any other relevant venue for the public and private sector;

[27] For details see WIPO, <http://www.wipo.int/cfd/en/index.thml>.

[28] Ibid.

- Sending speakers/experts to participate in on-site seminars and/or to provide support/advice;
- Supporting bilateral cooperation for IP modernisation; and
- Providing IP reference materials and information via the Internet.

Donors and providers of intellectual property rights related technical assistance (IPRTA) must be constantly aware that the development of IP systems in LDCs cannot be considered in isolation to the general development context and needs of the country concerned. For example, the sustainable provision of information technology equipment for an IP office may require consideration of financial resources and local skills to service and maintain the equipment, reliable power supply and telecommunications infrastructure or associated equipment like air conditioners.

Assessment of IPRTA and capacity building requirements of a developing country should be based on what that country needs, rather than on what a donor country wants, or is able, to provide. Recipients of IPRTA from LDCs obviously have a key role to play in informing such assessments, based on a broad and medium term perspective, and a wide range of stakeholders should be involved – not just national IP offices but stakeholders from other government agencies, the business sector and civil society as well.

Effective IPR policy development and implementation requires specialised technical and analytical skills and also a capacity to coordinate the policy development process in the national capacity so as to ensure the participation of key stakeholders both within and outside of government. Responsibility for IPR policy in LDCs generally falls to ministries of international trade or foreign affairs. The subsequent development of IP legislation and regulations is often delegated to ministries or departments that are, or will be, responsible for the actual administration of the IP system.

To ensure that national IPR reform processes are effectively linked to related areas of development policy, and that stakeholders participate effectively in these reform processes, IPRTA donors and providers should be mindful of the need to build sustainably the capacity of local institutions to carry out policy research, analysis and dialogue with these stakeholders, in addition to providing international expert and legal advice.

Often, LDCs may not have sufficient specialised knowledge and relevant expertise among their officials to enable them to define effectively their needs with regard to administration of the national IPR system. Donors and providers of IPRTA are therefore encouraged to adopt a transparent and comprehensive methodology for assessing a country's IPR administration needs.

IPR infringement through counterfeit or 'fake' drugs, automobile parts, pesticides, foodstuff and bottled water are appearing in the marketplace at an alarming rate in some parts of the world – in both developed and developing countries. The negative implications of this, not only in financial terms but also in terms of public health and safety can be huge. Consumers can be 'morally selective when it comes to purchasing counterfeit goods, and frequently view the pirating of consumer goods, especially, clothing and CDs as soft crimes.[29] The public therefore needs to be persuaded to refuse to purchase knowingly pirated and counterfeit goods while differentiating and keeping clarity on what are a fair uses of knowledge and information.

Increased enforcement of IPRs is also often politically sensitive as it may be seen as leading to increased costs for consumers and even the loss of access to jobs. A key element in any effort to strengthen the enforcement of IPRs is to increase public awareness and understanding of industrial and intellectual property. At the same time, clear, cost-effective, readily accessible enforcement mechanisms and procedures are required.

As well as enforcement, building capacity for regulation of IPRs, particularly in relation to matters of special public interest (as with compulsory licensing) or in relation to controlling anti-competitive practice by rights holders, should be given higher priority in IPRTA programmes for LDCs.

Undertake of regular, periodic reviews of all aspects of the national IPR regime, to ensure that these are relevant and appropriate. Donors of IPRTA could also do more to assist developing countries in this task, through providing appropriate technical assistance as well as formal and on-the-job training.

[29] WTO, 'Priority Needs for Technical and Financial Cooperation: Communication from Tanzania' (Council for Trade-Related Aspects of Intellectual Property Rights, Doc. IP/C/W/552, WTO, 2010) <https://www.wto.org/english/tratop_e/trips_e/ta_docs_e/7_2_ipcw552_e.pdf> 24 (accessed on 28 February 2014).

LDCs require a well-resourced, properly co-ordinated national policy and institutional framework in order to support development of their national innovation capabilities through maximising access to technologies and knowledge assets protected by IPRs (such as through subsidised patent information searching services and support to upgrade technology transfer capabilities in universities). They also need to strengthen research & development (R&D) and education institutions, and to conduct public education and awareness campaigns that focus on the value of using innovation, creativity and technology transfer to help achieve social and economic development goals.

The real gains for an LDC may instead lie in exploiting the intellectual effort already expended by a major foreign patent authority in establishing the TRIPS criteria for patentability, including novelty, inventiveness and industrial applicability, and focusing their own scarce technical resources on activities that offer greater payback. These might include activities such as helping domestic SMEs to access and exploit appropriate technology disclosed in patent documentation.

6.6 Technology Transfer in IP

The complexity and difficulties of TT operations call for new types of public-private partnerships (PPP). The essence of this kind of arrangement resides in the involvement of a third party, which is specialised in linking public donors, private firms, and local entrepreneurial activities to ensure the effectiveness of the TT operation. As such, this process will compensate for the shortcomings of existing mechanisms and which are essential to address problems arising from TT management as a main operation.

The PPP has to work on the supply and demand side. In both cases, the incentive issue (such as to motivate local entrepreneurs and technology holders) has to be addressed. On the demand side, the centrality of innovations targeting local needs and potentially generating spill over that is captured by the local economy has been previously emphasised in this text. In addition, the areas in which TTs must be primarily carried out are those of goods and services that address domestic needs through local entrepreneurial activity. Projects in these domains are socially beneficial and extraordinary advances must be achieved mainly in traditional sectors that generate local spill over. Therefore, the PPP has to target the local demand for technologies.

On the supply side, the PPPs must account for the existence of a certain profile of technology holders in developed countries that can be motivated and proceed efficiently when beginning an LDC TT transaction. As a consequence of a certain stage of vertical disintegration in industries, the emergence of specialised segments focusing on the invention and development of technologies, while not competing on the downstream market, is positive for TT to LDCs. This is a favourable context to find capable and motivated suppliers that are likely to undertake TT in an efficient way.

There is therefore an obvious need for international collaboration to establish IP information systems and clearing houses. Such a system could greatly reduce the cost of patent searches by developing countries. There are already a few examples of internet-based patent databases that enable a user to easily access and analyse published patents and patent applications from many countries.

A number of other recommendations in this context are:

- Developed members of the WTO must realise that every TRIPS-plus condition is an additional burden on the developing and least developed countries. While the latter group is already under pressure to comply with the TRIPS provisions, the TRIPS-plus conditions add extra burden on their already scarce resources and limited compliance ability. In view of this, the developed country Members like the US and its allies should engage into meaningful consultation and negotiation with their developing and least developed counterparts to devise a way that does not create any burden on the latter group. From the LDC point of view, it is of course recommended that there should not be any TRIPS-plus provisions in any agreements.
- LDCs must strongly urge the DCs to fulfil their commitments on overseas development aid, debt relief, trade and TT, fully, expeditiously and meaningfully, to enable the former to achieve the goals relating to strengthening IPR enforcement and regulations. Towards this, LDCs and DCs need to focus more on strengthening partnership between themselves.
- All efforts must be made to ensure successful completion of Doha Development Round (DDR) negotiations under the WTO by addressing the development concerns of the LDCs. Particular attention needs to be given on more resource commitment for *Aid for Trade* (A4T) and other *trade related technical assistance* (TRTA).

- Immediate implementation of the flexibilities and preferential provision under the WTO TRIPS agreement must be ensured.
- Developed countries (DCs) can play an important role by providing assistance for bringing back the skilled emigrants to LDCs that could benefit LDCs from brain circulation. To prevent brain drain, relaxing the restrictions in trade in services, including Mode 4 in GATS, can also help.
- TT to LDCs must take into account both economic and social requirements with a view to enabling this group of countries to achieve the MDGs.
- As innovators in the developed countries and the business community in the LDCs are the key stakeholders in the process of TT, governments must ensure that these entities are aware of the outcomes of various negotiations to facilitate their participation at the implementation stage.
- Taking into cognisance the heterogeneity of the LDCs, MNCs in the DCs should receive adequate incentive from home governments so that they can invest in technologies which address specific development needs of landlocked countries, small island developing countries, climate change-affected economies and post-conflict societies must be addressed in this context.
- PPP in the DCs can result in encouraging development of LDC friendly technology. LDCs should raise and highlight this issue in different bilateral, regional and multilateral dialogues with due urgency.
- LDCs must focus on reducing single commodity dependence in their trade performances. Such diversification has to be both horizontal and vertical. Support from DCs can be of vital importance in this regard.
- Meaningful integration into the global economy depends on both trade performance and degree of industrialisation within the country. With a view to attracting TT, LDCs should therefore promote domestic investment and support export expansion.
- LDCs must work pro-actively towards designing pragmatic strategies to ensure effective structural transformation of their economies.
- The great digital divide between the LDCs and developed countries must be addressed with due seriousness. If such differences in access to information technology continue

to persist, attainment of the Millennium Development Goals (MDGs) [30] and implementation of the Brussels Plan of Action (BPoA)[31] can never be ensured.

- LDCs must have access to adequate international financing to undertake various adaptation measures in the context of climate change. In addition, LDC's access to Environmentally Sound Technologies (ESTs) has to be ensured.
- In addition to North-South dialogue, the process of South-South consultation must be strengthened and vigorously pursued.
- LDCs have to raise a unanimous voice at every platform in pressing their needs and demands to the international community. One must not forget that TT is a human rights issue. People are entitled to scientific and technological developments.

6.7 Strengthening Judicial Enforcement

Right holders play an important part in identifying and intercepting infringed goods in international trades. However, this requires the government to put in place efficient judicial mechanisms to order prompt provisional measures to preserve evidence and prevent infringement.[32] These include issuing ex parte order for right holders to enter the premise of the alleged infringer and preserve evidence. However, it is of utmost importance the rights holder substantiate its claim and be able to provide security, if needed.[33] The courts needs to make sure that the requirement for security should not be unjustified and must not create obstacles in the overall judicial procedures.

In cases where the authorities have reasonable grounds to belie that the imported goods have, or can, infringe the rights of a legitimate right holder, orders can be issued to intercept and seize the goods. Such seizure should cover not only the goods in questions, but also the equipment and other materials, as available, used in the production, distribution and promotion of the alleged infringed goods. This may include freezing of the

[30] MDGs are a set of indicators to measure the level of socio-economic performance of the developing and least developed countries. For details, see http://www.un.org/millenniumgoals/.

[31] The BPoA is an instrument designed by the UN to address the development needs of the LDCs. For details, see http://unohrlls.org/UserFiles/File/Publications/bpoa.pdf.

[32] WIPO, 'Existing Needs for Training and for Development of Enforcement Strategies' (10 September 2002) <www.wipo.int/edocs/mdocs/.../en/wipo.../wipo_cme_2_rev.doc> 11 (accessed 12 October 2013).

[33] Ibid 18.

defendant's bank account(s) a decision has been made regarding the matter. Such measures can facilitate recovering compensation in regards to losses incurred by the applicant as well as to cover the cost of legal proceedings. In the USA such orders, executed by the police authorities, under the anti-racketeering legislation, allows the enforcement authorities to confiscate assets of organised criminals, such as real property, vehicles and boats, to be used in subsequent enforcement activities.[34]

In cases where the IPR infringers are found to have acted in bad faith, destruction of the goods will have to be ordered. Any costs related to the process of goods destruction will have to be borne by the infringer. Such measures can play a significant role in stopping the spread of the infringed goods. Furthermore, it will also work as a deterrent factor of such incidences likely to occur in the future. Any such efforts will have to be backed by regular monitoring and updating procedures by the law enforcement agencies.

There is no magic policy to stop IPR infringement at national borders. However, in order to make the judicial process more effective, courts need to be empowered to award damages to compensate the rights holders. In such cases, the amount of compensation must be decided at a level that will work as a deterrent for any future infringement in similar goods. This of course, will demand amendments in the relevant national legislations. Governments will have to take such initiatives to create a more business conducive environment and create blockades for IPR infringers.

6.7.1 Enhancing Legal Authority

The question of legal authority over the exercise of power in relation to IPR enforcement is crucial. If Customs is considered to be the only border protection agency, then the question arises as to whether it has the ability to deal with all forms of IPR infringement, such as drugs and medicines. The answer to the questions is simple. There needs to be greater coordination among the relevant government agencies to exercise sector-specific legal authority.

[34] Harvey J Winter, 'The Role of the United States Government in Improving International Intellectual Proterty Protection' (1987) 2 *Journal of Law and Technology* 325.

As the primary agency facing the infringement activity, Customs will need to have the authority to decide which border agency the case should be referred to. In cases of IPR infringement in medicines, it is recommended that the health department of the government has the legal authority to determine the nature and extent of infringement. The office of the patent and trademarks registrar can also have specific authority in this context.

The proliferation of IPR infringement has demonstrated the use of different channels used by the infringers. This includes postal system or international couriers. Hence, in addition to strengthening the capacity of Customs, governments will need to strengthen the capacity of the postal system to detect and identify IPR infringements. In this respect, officials for relevant government departments will need to maintain a more coordinated relationship with Customs.

Attempts to give specific legal authority to various agencies will demand amendments in existing laws and regulations. While doing so, governments will have to take cognisance of the provisions of the TRIPS Agreement. Doing so will avoid chances of being uncompliant with the WTO rules. Furthermore, governments will also have the ability to oppose arbitrary imposition of any TRIPS-plus measures by trading partners.

6.7.2 Setting Up Special IPR Tribunals

Increasing incidences of IPR infringement in international trade calls for a renewed thinking with regard to judicial procedures of such cases. In a business-as-usual scenario, where the IPR cases are referred to the regular judiciary, it creates stagnation in the whole process. The congestion created by such practices may result in unprecedented delay in the judicial process. Establishment of the special tribunal will also reduce the cost related to the storage of the seized goods. The longer the case remains pending, the more the cost of storage will be. Hence, setting up a special IPR tribunal is of significant importance. Such dedicated tribunals are already in place in a number of developed countries. However, there is hardly any opportunity to ignore its importance for the LDCs and their developing counterparts.

To facilitate the process of speeding up the work of the tribunal, Customs will need to conduct the initial review of the case by using its criminal investigation tools. As can be

understood, such a tribunal will be dealing only with IPR violation cases in international trade. A better coordination and cooperation among the right holders and Customs authorities will mean that the objection and notification phased in the process will be dealt with in an expeditious manner. The special tribunal will have access to the relevant information regarding the case on Customs database. Both the plaintiff and the defendant will have the opportunity to supply their responses and evidences through the database. This will reduce the time and cost related to administering the case.

Like any other capacity building initiative, it will be crucial to review a country's existing judicial system before attempting to establish such a specialised tribunal. Last thing a government will need is to put extra pressure on its limited financial and human resources. It is expected that setting up of a special tribunal for IPR related matters in international trade will encourage Customs and other border agencies to detect more incidents of IPR infringement at national border.

6.7.3 Expediting Litigation Procedures

It is important that procedures related to litigation in IPRS be expedited. This will not only result in avoiding any congestion of cases and documents in the courts, but also will reduce the cost involved in such litigations. For example, after the customs authorities have seized the goods, the applicant or the person who is entitled should have the possibility to file a written objection within a short time limit. If no objection is filed, the goods would be destroyed or taken from the market in a different way. If an objection is raised, the seized goods would be handed over to the right holder, if the applicant cannot prove that he has brought an action with the competent court within a time limit of, such as, 10 or 20 days. Alternatively, intellectual property cases could be dealt with in interim, informal procedures, which could be held on a very short notice and following which the infringement might be stopped immediately. This abbreviated procedure could be followed by proceedings on the merits. The right holder could make a reasonable case for having an urgent interest and he should do so within reasonable time after the discovery of the infringements, otherwise, he should start proceedings on the merits.

6.7.4 Customs' Authority to Conduct Criminal Investigations

As the frontline agency dealing with cases of IPR infringement Customs administrations require power and authority to conduct criminal investigations. However, in reality, this is somewhat lacking.[35] In incidences like these, the matter is referred to police to carry out the criminal investigation. Such practice surely causes delays in the investigation procedure.

To overcome this shortcoming, it is important to empower Customs with the authority to conduct criminal investigations in matters that fall within its jurisdiction. Such amendment in authority will call for changes in the relevant national legislations. Besides, additional funding may be required to facilitate proper implementation of this responsibility by the Customs administration. This is particularly important to ensure that the Customs personnel are equipped with the proper tools and training to discharge their responsibilities relating to the investigation.

Once the Customs administration is equipped with a criminal investigative unit, it can play important role investigating other criminal activities in addition to those related to IPR infringements. In view of this, existing training academies, such as those operated by police and other law enforcement agencies, can play a vital role in training the Customs officials in criminal investigations. The IP rights holders can contribute significantly in this process by supplying information as well as by participating as resource persons in the training sessions.

6.8 Enhancing Administrative Enforcement

In view of the expense and complexity of the judicial enforcement of IPRs, administrative remedies are often a less expensive solution.[36] Such measures can result in speedy and low cost processes while ensuring a comprehensive coverage of the matter. In this way, dependence on the judicial process will be reduced by way to enhancing more effective

[35] Syed Saifuddin Hossain, 'Border Enforcement of IPR Laws in Australia' (2009) 4(1) *Global Trade and Customs Journal* 9.

[36] In the People's Republic of China, there are, apart from Customs, two governmental administrative bodies which handle intellectual property cases: The *Administration for Industry & Commerce* (AIC), handling trademarks, trade dress and trade name related disputes; and The *Technology Supervision Bureau* (TBS), handling cases of pure Counterfeit under the Product Quality Law.

collaboration among different government agencies to exercise required power to inspect, confiscate and destroy infringed goods.

6.8.1 Ensuring Increased Administrative Authority

It is important the government determines the requirements to further empower the administrative authority to deal with IPR infringement in the context of international trade. Customs agencies, immigration authorities, coastal guards,- all will be required to be given clearly articulated specific powers for coordination and exercise of authority. Such border enforcement powers will need to complement their existing authority in terms of border protection against IPR infringements. Trade cannot by further facilitated if these authorities are only engaged in filing an application and referring the matter to the courts to decide. More needs to be done in this context. This includes, power to issue seizure orders, determine extent of damages caused to legitimate rights holders, and enforce implementation of the decision taken. There is no doubt that such a measure will require significant overhaul of the existing administrative system within the border enforcement agencies. However, in order to reduce the time and cost of dealing with an infringement case, such enhanced administrative measures needs to be considered.

6.8.2 Authority to Make Merit-based Decisions

The positive effects of enhanced administrative authority will reflect in merit-based decisions taken by the relevant agencies. With IPR owners being the ultimate beneficiaries of such decisions, Customs and other border protection agencies will need to be given the flexibility to determine the merits of the IPR infringements. These include, among others, determining (i) the nature and extent of IPR infringement, (ii) the parties involved in the act of infringement, (iii) the financial implications of the infringement on the rights holders, (iv) the duration of suspension of release of the goods, and (v) the penalties to be awarded to the alleged infringer. Needless to say that such merit-based decision making authority will result in reduced court and legal expenses by both the applicant and the defendant.

A relevant concern in the above context is the human resource aspect of the agencies to deal with IPR infringement issues. Understanding the level of legal expertise within the

Customs agencies is also crucial. A detailed survey of the relevant units will need to be undertaken to clarify these issues. Once the gap has been determined, required training and recruitments will need to be ensured to enhance the IPR controlling authority of the Customs. The importance of such legal expertise within the Customs administration cannot be underemphasised in view of the fact that both IPR owners and defendants will resort to legal actions once an infringement occurs. In such a scenario, the government will have to decide whether to refer the matter to a judicial tribunal or settle the matter under an administrative tribunal.[37]

6.8.3 Ensuring Right to Information

Empowerment of the Customs administration with administrative authority requires the right to access information from all relevant parties. This is particularly important for the border enforcement agencies to exercise *ex officio* actions. The first and most important contact point in this regard will be the IP offices in the respective countries. Should the border enforcement agencies have reasonable grounds to believe that an infringement of IPRs has taken place, the national IP offices will be required to provide them with all relevant information to verify and substantiate the case. This may include details of patent or trade mark including logo, registration date, duration of registration, etc. In addition, information will also be needed to be provided by other law enforcement agencies, such as police and coast guards, to check whether the alleged infringer has had any previous criminal background.

In addition to Customs, the right holders also needs access to information deemed critical to substantiate their claims against an alleged infringer. Providing the right holder with information about infringing goods, as well as about persons involved in the infringements, enables to rights holder to identify the chain of distribution. The Border Control legislation

[37] Government and industry must be aware of the TRIPS Article 49 requirement that civil remedies arising from administrative procedures on the merits of a case 'shall conform to principles equivalent in substance to those set for the in this Section'. TRIPS Article 49. The reference to 'in this Section' at the end of Article 49 refers to the basic TRIPS Article 41(4) requirement that '[p]arties to a proceeding shall have an opportunity for review by judicial authority of final administrative decisions and, subject to jurisdictional provisions in a Member's law concerning the importance of a case, of at least the legal aspects of initial judicial decision on the merits of a case'; TRIPS Article 41(4).

of Hong Kong[38] provides that Customs may disclose the following information to right holders:

- The time, and the address of the place, of seizure or detention of the goods;
- The name and the address of the person from whom the goods have been seized or detained;
- The nature and quantity of the goods; and
- Other information the Customs thinks fit to disclose.

It will be less cumbersome for the right holders to access the relevant information if they can directly apply to Customs rather than going through the judicial process of applying to a national court to get the permission to access the required information. This is where the administrative authority of the Customs agencies can play an important role in strengthening the Customs-Business relationship.

6.9 Conclusion

It is the responsibility of both the IPR holders and the governments to ensure that guidelines about border enforcement of IPRs are clearly understood by all parties. This includes dissemination of detailed information about the administrative and investigative roles of Customs. Such an endeavour will create opportunities for more cooperation between the public and private sectors in relation to assess current situations and future needs for ensuring a better enforcement regime.

One of the concerns of the right holders have been the obligations to pay for storage of alleged infringed goods. Despite repeated calls by the international community, the matter is yet to be resolved. The TRIPS agreement does not provide any specific guidelines or recommendations to this end. As a result, governments have the freedom to justify their position when such measures are put in place. The European Council Regulation is clear that the Customs administrations of the member states shall not be liable for the storage expense.[39] It is recommended that the governments, in consultation with the private sector,

[38] Copyright Ordinance (Chapter 528) – Section 126; Trade Descriptions Ordinance (Chapter 362) – Section 16C.

[39] EC, above n 1, Art. 15.

design a more mutually acceptable solution to this problem. Cost bearing on 50:50 basis may be considered as an option. However, in cases where no IPR infringement can be determined, it is fair the right owners should pay the storage costs. This implies to goods in-transit as and those destined for export.

The WCO Model Legislation recommends that national legislation makes clear that where goods are legally found to be counterfeit, pirated, or otherwise infringing IPR, the owner of the goods, importer, exporter, consignee, or consignor shall be ordered to pay storage costs.[40] This is a logical and acceptable recommendation to take the burden off the rights holders. Because, when goods are found to be infringing, procedures that require the IPR owners to pay storage costs seem to penalise the IPR owners and impose greater fees on the party that has operated in accordance with the law and attempted to meet the requirements of the Customs procedures.[41]

Customs administrations are now-a-days equipped with better tools and trainings than before. Data compilation and analyses are now much easier. Hence, once the IPR infringement is established, Customs administrations should make greater efforts to impose monetary penalties on importers for the violation of Customs laws and procedures. Collection of such penalties and fines will enable Customs to relieve the right owners from paying storage fee for the confiscated goods.

Previous chapters of the thesis have examined a number of instruments introduced by national governments and international organisations. The ultimate objective of the exercises is to ensure that IPR owners enjoy a conducive environment to conduct business which essentially will contribute towards socio-economic development of the countries. These potential benefits to the right holders will not be limited to governments only. This will result in better border enforcement regime to protect IPR infringement in international trade. As TRIPS requires, governments will need to streamline their national legislations with the WTO instrument. Hence, the higher enforcement standards will be equally applicable to all individuals and entities, national or international, in relation to their

[40] WCO, above n 4, Art. 16(2).

[41] The recent amendments to EU's Customs regulations did not eliminate this onerous burden on IPR owners. IPR owners continue to be responsible for storage fees involving infringing goods. For details, see http://europa.eu/rapid/press-release_MEMO-13-526_en.htm.

conduct in international trade. The principles of Most Favoured Nation (MFN) and National Treatment (NT) will be applied where appropriate. However, in the absence of a multilateral negotiation to change and improve the TRIPS border measures the enforcement standards are being raised through alternative means, such as the TPP and the TTIP.

It is important to understand that there is scope to apply a one-size-fits-all approach when it comes to strengthening border enforcement in different countries. As has been discussed in earlier chapters, each country comes with a unique set of strengths and weaknesses owing to its social structure, economic development and resource availability. Hence, any prescription to address border enforcement of IPR has to come with a flexible feature that enables these countries to adopt the recommendations and make these fit with their needs.

Enhancing both administrative and judicial powers of Customs authorities will need to be prioritised. This is not to say that governments should take away the judicial or criminal investigation powers from other law enforcement agencies such as police. However, with a view to enabling Customs to expedite the seizure and investigations procedures, it is important that such changes are made. For governments that decide to undertake such changes, proposed changes should be made with the input of the IPR owners and importing communities. In addition, coordination with other government agencies is recommended in order for appropriate considerations of inter-agency cooperation.

Complying with the provision of the TRIPS Agreement, it is important that governments actively put criminal sanctions on piracy and counterfeiting. In particular, Article 61 of the TRIPS underlines the requirements for criminal investigations and application of penalties in cases of wilful IPR infringement. Whether to be covered under civil or criminal procedures, Customs should be the initial agency to determine and carry out the investigation.

Finally, all relevant stakeholders need to seriously focus on the need and implications of training and awareness raising in the context of IPR infringement in international trade. Technological advancement in a selected group of countries will not result in any significant benefit for all parties unless developing and least developed countries are supported through TT and TACB. This calls for increased investment in the technological

advancement and law enforcement activities at national and international levels. Infringers of IPRs mostly target the globally renowned brands. Hence, these multinationals must step up and increase the level of their support to strengthen border enforcement in countries where they have commercial presence or any related interests. This can be done in the form of contributions towards human resource development and/or funding commitments. Ultimately, trade facilitation through border enforcement of IPRs needs to be recognised as an essential element of national and international development. Failing to do so, by any of the stakeholder groups, will undermine the development objectives of multifarious efforts by the international community to establish a secure international trading environment conducive to national and global development.

A Summary of the Outcomes and Contributions of the Thesis

- Highlights the implications of border infringement of IPRs for international trade;
- Identifies the links and missing links between trade facilitation, TRIPS and IPR enforcement in existing literature;
- Presents an analytical review of the socio-economic impacts of IPR infringement with particular emphasis on the LDCs and developing countries;
- Analyses TRIPS border measures as stated in Articles 51-60 and underscores their advantages and limitation in the context of IPR enforcement at national borders;
- Critically examines the role of Customs in ensuring enforcement of IPRs in the conduct of international trade;
- Articulates the needs for customs reform and modernisation, technical assistance, and technology transfer to ensure better application of the WTO TRIPS Agreement; and
- Puts forward a set of recommendations that need to be implemented to enhance greater IPR protection to facilitate international trade.

SELECTED BIBLIOGRAPHY

Books and Book Chapters

Abbott, Fredrick, Francis Gurry and Thomas Cottier, *The International Intellectual Property System: Commentary and Materials* (Kluwer Law International, 1999) 12.

Ahmed, M.U., 'Globalisation and Competitiveness of Bangladesh's Small- Scale Industries (SSIs): An Analysis of the Prospects and Challenges, Bangladesh Facing the Challenges of Globalisation' in *A Review of Bangladesh's Development 2001* (Centre for Policy Dialogue and The University Press Limited, 2002) 217-250.

Blakeney, Michael, *Trade Related Aspects of Intellectual Property Rights: A Concise Guide to the TRIPS Agreement* (Sweet & Maxwell, 1996), 129.

Braithwaite, John and Peter Drahos, *Global Business Regulation* (Cambridge University Press, 2000) 60.

Chaudhry, Peggy E and Alan S Zimmerman, *The Economics of Counterfeit Trade: Governments, Consumers, Pirates, and Intellectual Property Rights* (Springer, 2009) 18.

Cornish, W.R., *Intellectual Property* (Sweet & Maxwell, 1981) 4-8.

Gervais, Daniel (ed), *TRIPS Agreement, Drafting History and Analysis* (Thompson Sweet & Maxwell, 2nd ed, 2003) 32.

Goldstein, P., *Intellectual Property: The Tough New Realities That Could Make or Break Your Business* (Penguin Group US, 2007) 32.

Harrison, Mark, *International Customs Law PG: Study Guide* (Centre for Customs and Excise Studies, University of Canberra, 2006) 8-11.

Hossain, Syed Saifuddin, Narayan Chandra Das and Md. Masum Billah, 'Trade Remedy Laws and Dispute Settlement: A Review' in Mustafizur Rahman (ed), *World Trade Organisation and Bangladesh: Post Cancun Assessment* (Centre for Policy Dialogue (CPD), 2005) 166-186.

Ilias, Shayerah and Ian F Fergusson, *Intellectual Property Rights and International Trade* (Nova Publishers, 2008) 96.

M Rafiqul Islam, *International Trade Law of the WTO* (Oxford University Press, 2006) 380.

Maskus, E.K., *Intellectual Property Rights in the Global Economy* (Institute for International Economics, 2000) 227.

Maskus, K.E. and D. Eby Konan, 'Trade-Related Intellectual Property Rights: Issues and Exploratory Results' in A.V. Deardorff and R.M. Stern (eds), *Analytical and Negotiating Issues in the Global Trading System* (University of Michigan Press, 1994) 401-446.

Maskus, K.E., 'The Economics of Global Intellectual Property and Economic development: A Survey' in P.K. Yu (ed), *Intellectual Property and Information Wealth: Issues and Practices in the Digital Age* (Praeger Publishers, 200) vol. 4, 159-186.

McLinden, G. et al (eds), *Border Management Modernization* (World bank, 2011) 299.

Melendez-Ortiz, Ricardo and Pedro Roffe (eds), *Intellectual Property and Sustainable Development: Development Agendas in a Changing World* (Edward Elgar, 2009) 53.

Mohammed K El Said, *Public health related TRIPS-plus provisions in bilateral trade agreements* (ICTSD and WHO, 2010) 10-18.

Morrea, Carloa M., *Intellectual Property Rights, the WTO and Developing Countries: The TRIPS Agreement and Policy Options* (Zed Boos, Third World Network, 2000) 76.

Phillips, J., *Introduction to Intellectual Property Law* (Butterwirth & Co (Publishers) Ltd, 1986) 3.12.

Poole, Curtis and Janette Bradley, *Developer's Digital Media Reference: New Tools, New Methods* (Elsevier Science, 2003) 172.

Rahman, K. M., S. Hasan and Hasanuzzaman, *Aid for Trade: Needs assessment from Bangladesh perspective* (Centre for Policy Dialogue, 2008) 15.

Shelly, Gary et al, *Teachers Discovering Computers: Integrating Technology and Digital Media in the Classroom* (5th ed, 2008) 234.

Staples, Brian Rankin, 'Trade facilitation: improving the invisible infrastructure' in Bernard Hoekman, Aditya Matto and Philip English (eds), *Development, Trade and the WTO: a Handbook* (World bank, 2002) 4.

Stewart, Andrew, Phillip Griffith and Judith Bannister, *Intellectual Property in Australia* (LexisNexis Butterworths, 4th ed, 2010) 331-365.

Taubman, A., H. Wager and J. Watal (eds), *A Handbook on the WTO TRIPS Agreement* (Cambridge University Press, 2012) 152.

Trainer, T.P. and V.E. Allums, *Protecting Intellectual Property Rights across Borders* (Thomson/West, 2006) 5-37.

Trainer, T.P., *Border Enforcement of Intellectual Property* (Oceania Publications, Inc., 2000) 3.

UNCTAD and ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press, 2005) 589.

United Nations, *Trade Facilitation Handbook for the Greater Mekong Subregion* (UN, 2002) 11.

UNNExT, UNESCAP and UNECE, *Business Process Analysis Guide to Simplify Trade Procedures* (United Nations, 2009) 5.

Vrins, O. and M. Schneider (eds), *Enforcement of intellectual property rights through border measures* (Oxford University Press, 2006) 3-26.

World Trade Organization, *The Legal Text: The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge University Press, 1999) 319-351.

Journal Articles

Arnold, R., 'Cross-border Enforcement: The Latest Chapter' (1999) (4) *Intellectual Property Quarterly* 389-426.

Bello, Judith H., 'Some Practical Observations about WTO Settlement of Intellectual Property Disputes' (1997) 37 *Virginia Journal of International Law* 357-367.

Bhat, M. G., 'Trade-related intellectual property rights to biological resources: Socioeconomic implications for developing countries' (1996) 19 *Ecological Economics* 205-217.

Bolhöfer, Carolin Eve, 'Trade Facilitation - WTO Law and its Revision to Facilitate Global Trade in Goods' (2007) 2(11/12) *Global Trade and Customs Journal* 385-391.

Busch, Marc L. and Eric Reinhardt, 'Developing Countries and GATT/WTO Dispute Settlement' (2003) 37(4) *Journal of World Trade* 719- 735.

Deardorff, 'Welfare effects of global patent protection' (1992) 59 *Economica* 35-51.

E.P.Chiang, 'Determinants of Cross-Border Intellectual Property Rights Enforcement: The Role of Trade Sanctions' (2004) 71(2) *Southern Economic Journal* 424-440.

Frankel, Susy, 'Challenging TRIPS-Plus Agreements: The Potential Utility of Non-Violation Disputes' (2009) 12(4) *Journal of International Economic Law* 1023-1065.

Green, Robert T. and Tasman Smith, 'Countering Brand Counterfeiters' (2002) 10(4) *Journal of International Marketing* 89-106.

Hossain, Syed Saifuddin, 'Bangladesh Customs: Managing Risk for Better Trade' (2009) 4(2) *Global Trade and Customs Journal* 45-51.

Hossain, Syed Saifuddin, 'Border Enforcement of IPR Laws in Australia' (2009) 4(1) *Global Trade and Customs Journal* 1-14.

Hossain, Syed Saifuddin, 'Revised Kyoto Convention: The Best Practice Guide for Customs' (2008) 3(11/12) *Global Trade and Customs Journal* 383-389.

Jensen, Richard and Marie Thursby, 'Patent Races, Product Standards and International Standards' (1996) 37(1) *International Economic Review* 21-49.

Kanwar, S. and R.E. Evenson, 'Does intellectual property protection spur technological change?' (2003) 55 *Oxford Economic Papers* 235-265.

Kongolo, Tshimanga, 'The WTO Dispute Settlement Mechanism: TRIPS Rulings and the Developing Countires' (2001) 4(2) *Journal of World Intellectual Property* 257-270.

LaFrance, Mary, 'Passing Off and Unfair Competition: Conflict and Convergence in Competition Law' (2011) 2011(1413) *Michigan State Law Review* 1413-1442.

Lai, Albert Wenben, 'Consumer Values, Products Benefits and Customer Value: A Consumption Behavior Approach' (1995) 22 *Advances in Consumer Research* 381-388.

Landes, William M. and Richard Posner, 'Trademark Law: An Economic Perspective' (1987) (30) *Journal of Law and Economics* 265-309.

Lanjow, J. and M. Schankerman, 'Characteristics of Patent Litigation: A Window on Competition' (2001) 32(1) *Rand Journal of Economics* 129-151.

Lemper, Timothy A., 'The critical role of timing in managing intellectual property' (2012) (55) *Business Horizons* 339-347.

Martin, Hal, 'Enforcing Intellectual Property Rights: Estimating the Optimal Level of Enforcing Patent Protection' (2010) 19 *Issues in Political Economy* 104-126.

Maskus, Keith E. and Mohan Penubarti, 'How Trade-related are Intellectual Property Rights?' (1995) 39 *Journal of International Economics* 227-248.

Maskus, Keith E., 'The International Regulation of Intellectual Property' (1998) 134(2) *Weltwirt-schaftliches Archiv* 186-208.

Mazzoleni, Robert and Richard R. Nelson, 'The Benefits and Costs of Strong Patent Protection: A Contribution to the Current Debate' (1998) 27(3) *Research Policy* 273-284.

Milchior, Richard, 'Do IP owners have too much power?' (2013) 8(9) *Journal of Intellectual Property Law & Practice* 735-736.

Ostry, Sylvia, 'The world trading system: In the fog of uncertainty' (2006) 1(2) *The Review of International Organizations* 139-152.

Pooley, J., 'Putting Together a Global Enforcement Solution' (1999) (94) *Managing Intellectual Property* 16-19.

Staake, Thorsten, Frédéric Thiesse and Elgar Fleisch, 'Business strategies in the counterfeit market' (2012) 65(5) *Journal of Business Research* 658-665.

Widdowson, David, 'The Changing Role of Customs: Evolution or Revolution?' (2007) 1(1) *World Customs Journal* 31-37.

Winter, Harvey J, 'The Role of the United States Government in Improving International Intellectual Property Protection' (1987) 2 *Journal of Law and Technology* 325.

Yu, Y. and L. Zhang, 'Analysis of Enforcement Mechanism of Section 337 of the US Tariff Act through Perspectives in Law and Economics' (2012) 17 *Journal of Intellectual Property Rights* 209-217.

Reports and Working Papers

APEC, 'Revised Kyoto Convention: A pathway to accession and implementation' (APEC, 2003)

Bhattacharya, Debapriya and Syed Saifuddin Hossain, 'An evaluation of the need and cost of selected trade facilitation measures in Bangladesh: Implications for the WTO negotiations on trade facilitation' (ARTNeT Working Paper Series 9, UNESCAP, 2006).

Blakeney, Michael, 'Guidebook on Enforcement of Intellectual Property Rights' (Queen Mary Intellectual Property Research Institute, 2005) http://trade.ec.europa.eu/doclib/docs/2005/april/tradoc_122641.pdf

Bloomberg BNA, 'World Intellectual Property Report' (December 1991) <http://www.bna.com/world-intellectual-property-report-p6798/>

Bogsch, Arpad, 'Brief History of the First 25 Years of the World Intellectual Property Organisation' (WIPO, 1992)

Commonwealth of Australia, 'Annual Report 2006-07' (Australian Customs Services, 2007)
<http://www.customs.gov.au/webdata/resources/files/AnnualReport06_07_Full.pdf>.

Customs, Japan, Result of post-clearance audit examination in fiscal year of 2008 <www.mof.go.jp/jouhou/kanzei/ka211009b.htm>.

Customs, Japan, 'The results of the 9th Time Release Study (Press Release)' (2009) <www.mof.go.jp/jouhou/kanzei/ka21076.htm>.

Drahos, Peter, 'Developing Countries and International Intellectual Property Standard Setting' (2002).

Dutson, Stuart, 'The Internet, Intellectual Property and International Litigation: The Implications of the International Scope of the Internet on Intellectual Property Infringements' (British and Irish Legal Education Technology Association, 1998) <http://www.bileta.ac.uk/content/files/conference%20papers/1998/The%20Internet,%20Intellectual%20Property%20and%20International%20Litigation.pdf>.

Duval, Yann, 'Cost and benefits of implementing trade facilitation measures under negotiations at the WTO: An exploratory survey' (ARTNeT Working Paper Series 3, UNESCAP, 2006).

ESCAP, 'Guidelines on ICT Application for Trade and Transport Facilitation for Landlocked Countries in the Asian and Pacific Region' (2006).

Government of Canada, *Foreign Affairs, Trade and Development Canada* <http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/nafta-alena/2800216b.aspx?lang=en>.

Government of India, 'Meeting of the General Council WTO Geneva 24-25 July 2014: Statement by India' (Press Information Bureau, Government of India, Ministry of Commerce & Industry, 2014) <http://pib.nic.in/newsite/PrintRelease.aspx?relid=107533>.

Hoorens, S. et al, 'Measuring IPR infringements in the internal market: Development of a new approach to estimating the impact of infringements on sales' (European Commission, 2012) 17-26.

Hummels, D., 'Time as a trade barrier' (Working Paper, Purdue University, 2001).

IMD, 'IMD World Competitiveness Yearbook 2009' (2009).

Interpol, 'Trafficking in illicit goods and counterfeiting' (Interpol, 2015) <http://www.interpol.int/Crime-areas/Trafficking-in-illicit-goods-and-counterfeiting/Trafficking-in-illicit-goods-and-counterfeiting> (accessed on 18 October 2015).

Ireland, Robert, 'The WCO SAFE Framework of Standards: Avoiding Excess in Global Supply Chain Security Policy' (2009) *WCO Research Paper No. 3*

Johnson, Renée, 'Food Fraud and 'Economically Motivated: Adulteration' of Food and Food Ingredients' (CRS Report, Congressional Research Service, 2014) <http://foodfraud.msu.edu/wp-content/uploads/2014/01/CRS-Food-Fraud-and-EMA-2014-R43358.pdf>

Maskus, K.E. et al, *The cost of compliance with product standards for firms in developing countries: An econometric study* (World Bank, Development Research Group, Trade Team, 2005).

Maskus, Keith E., 'Intellectual Property Rights and Foreign Direct Investment' (University of Adelaide, 2000).

Michalopoulos, Constantine, 'Special and Differential Treatment of Developing Countries in TRIPS' (TRIPS Issues Paper No. 2, Quaker United Nations Office (QUNO), Geneva and Quaker International Affairs Programme (QIAP), Ottawa, 2003).

Musungu, Sisule F and Graham Dutfield, 'Multilateral agreements and a TRIPS-plus world: The World Intellectual Property Organisation (WIPO)' (Quaker United Nations Office (QUNO), 2003).

Nathan Associates Inc. and Werner International, 'Factory-Level Value Chain Analysis of Cambodia's Apparel Industry' (2007).

Nathan Associates Inc., 'Holistic Modernization of the International Trade Transaction Process' (2009) <http://clearviewtrade.com/blog/download/nathan-associates-holistic-modernization-of-the-international-trade-transactions-process/>.

OECD, 'Informal cross-border trade and trade facilitation reform in sub-Saharan Africa: final report' (2009).

OECD, 'Quantitative assessment of the benefits of trade facilitation' (2003).

OECD, 'The role of automation in trade facilitation' (OECD, 2005).

Oxfam, 'WTO Patent Rules and Access to medicines: The pressure mounts.' (2001).

Prasad, B.C., 'Trade Facilitation Needs and Customs Valuation in Fiji' (ARTNeT Working Paper Series 24, UNESCAP, 2006).

Rights, Commission on Intellectual Property, 'Integrating Intellectual Property Rights and Development Policy' (Commission on Intellectual Property Rights, 2002).

Schware, R. and P. Kimberley, 'Information technology and national trade facilitation' (1995) *World Bank Technical Paper No. 317*

Trainer, Timothy P., 'International Intellectual Property Protection: SOP (Standards, Observations & Perceptions)' (International Anti-Counterfeiting Coalition, 2002) http://www.iacc.org/.

UNCTAD, 'Trade facilitation as an engine for development' (2005) *Note by the secretariat (TD/B/COM.3/EM.24/2).*

WCO, 'Illicit Trade Report 2012' (WCO, 2013) <http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/~/media/WCO/Public/Global/PDF/Topics/Enforcement%20and%20Compliance/Activities%20and%20Programmes/Illicit%20Trade%20Report%202012/WCO%20REPORT%202013%20-%20BR.ashx>.

WCO, 'Summary Report: Revenue Management Conference' (2009).

Wilson, J.S., C. L. Mann and T. Otsuki, 'Assessing the potential benefit of trade facilitation: A global perspective' (2004) *World Bank Policy Research Working Paper 3224*
<https://openknowledge.worldbank.org/bitstream/handle/10986/14733/wps3224TRADE.pdf?sequence=1>

Wilson, N., 'Examining the trade effect of certain customs and administrative procedures' (OECD Trade Policy Working Paper No. 42, OECD, 2007).

World Bank, 'Investment Climate Survey Database' (2003)

WTO, Guidelines for the immediate release of consignments by Customs (2006).

WTO, 'Trade Policy Review: Secretary Report: New Zealand' (2009).

Conference Paper

Hossain, Syed Saifuddin, *'Simplification of Trade Processes and Procedures in Bangladesh: Results from Business Process Analysis (BPA) of Export and Import Procedures for Selected Commodities*' (Paper presented at the Dialogue on Trade Promotion Through Trade Facilitation, Dhaka, 21 October 2010).

Thesis (unpublished)

Naser, Mostafa Mahmud, 'Protecting Climate Change Induced Displacement in Bangladesh: Legal and Policy Responses', Macquarie University (2012).

Online Materials

Agarwal, Sunil Kumar, Navin Srivastava and Amita Agarwal, 'Trips-Plus Agenda Through Anti-Counterfeiting Trade Agreement: Implications for India ' (2011) <http://ssrn.com/abstract=1868026> (accessed on 30 April 2012).

Alavi, H., 'Paperless Trade: Implementation Experience and the Way Ahead' (2005) <https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCcQFjAA&url=http%3A%2F%2Fwww.unece.org%2Ffileadmin%2FDAM%2Fforums%2Fforum05%2Fpresentations%2Fday1%2FHAlavi.pps&ei=DSIgU5-0AcWrkAXH7YBw&usg=AFQjCNGIdyfYCs9jNvjBFxu3NYoqVchn2A&bvm=bv.62788935,d.dGI> (accessed on 13 September 2011).

Andersen, Birgitte, '‘Intellectual Property Right’ Or ‘Intellectual Monopoly Privilege’: Which One Should Patent Analysts Focus On?' (2003) http://redesist.ie.ufrj.br/globelics/pdfs/GLOBELICS_0050_Andersen.pdf (accessed on 13 August 2012).

Australian Government, *Australia-United States Free Trade Agreement* <http://www.dfat.gov.au/fta/ausfta/final-text/chapter_17.html> (accessed on 12 March 2013).

Baldwin, Robert E., 'Failure of the WTO Ministerial Conference at Cancun: Reasons and Remedies' (2004) <http://www.fordschool.umich.edu/rsie/Conferences/CGP/May2004Papers/Baldwin.pdf> (accessed on 18 January 2012).

Berne Convention for the Protection of Literary and Artistic Works, (1886) <http://www.wipo.int/export/sites/www/treaties/en/ip/berne/pdf/trtdocs_wo001.pdf> (accessed on 25 February 2013).

Best Global Brands, (2007) <http://www.ourfishbowl.com/images/fishbowl_story/2672007/bestglobalbrands_2007ranking.pdf> (accessed on 29 December 2007).

CUTS, 'Intellectual Property Rights and Competition Policy' (2008) 1 *Viewpoint* <http://www.cuts-international.org/pdf/VP-IPRs-CompPolicy.pdf> (accessed on 29 April 2012).

Droege, Susanne and Birgit Soete, 'Trade-Related Intellectual Property Rights, North-South Trade, and Biological Diversity' (1998) <http://siti.feem.it/gnee/pap-abs/droege.pdf> (accessed on 18 February 2013).

Duffy, John F., 'Intellectual Property as Natural Monopoly: Toward a General Theory of Partial Property Rights' (2005) <http://www.utexas.edu/law/wp/wp-content/uploads/centers/clbe/duffy_intellectual_property_natural_monopoly.pdf> (accessed on 29 April 2012).

GRAIN, 'TRIPS-plus through the back-door' (2001) <http://www.grain.org> (accessed on 29 April 2012).

Lester, L.R. and M. Terry, 'Removing barriers to SME access to international markets: OECD-APEC global study' (2008) <http://sbaer.uca.edu/research/usasbe/2008/pdf/PaperID65.pdf> (accessed 12 January 2013).

Minister of Public Works and Government Services Canada, 'Canada-United States Accord on Our Shared Border' (2000) <http://publications.gc.ca/collections/Collection/Ci51-95-2000E.pdf> (accessed on 20 March 2012).

Moïsé, Evdokia, 'The Relationship between Regional Trade Agreements and Multilateral Trading System' (2002) <http://www.mincomes.it/semproitalia/tavolo_strategico/8_documenti/OCSE/OCSE/Contenuti/Trade_Facilitation_Regional_and_Multilateral_Trading%20System.pdf> (accessed 17 June 2012).

OECD, 'The Economic Impact of Counterfeiting and Piracy' (2007) <http://www.oecd.org/industry/ind/38707619.pdf> (accessed on 18 December 2012).

OECD, 'Transparency and Simplification Approaches to Border Procedures: Reflections on the Implementation of GATT Article VIII-Related Proposals in Selected Countries' (2002) <http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=td/tc/wp(2002)50/final> (accessed on 10 January 2013).

World Customs Organization, 'Counterfeiting and Piracy: Crime of the 21st Century?' (2007) <www.wcoomd.org> (accessed on 20 January 2013).

Ralph V. Frasca, Jr., 'Product Counterfeiting: The Economic Scourge of the 21stCentury' (2009) <http://www.bicsi.org/pdf/winter_2010/Ralph_Frasca.pdf> (accessed 23 February 2012).

UNCTAD, 'Trade transaction modeling. Trust Fund for Trade Facilitation Negotiations' (2007) *Technical Note No. 20* <http://r0.unctad.org/ttl/technical-notes/TN20_TradeTransactionModelling.pdf> (accessed on 15 June 2012).

UNECE, 'UN/CEFACT Framework of Standards for Paperless Trade: Digital Documents, Single Window, Data Harmonisation and Capacity Building' (2007) *ESCWA Regional Workshop, Cairo* <http://www.escwa.un.org/divisions/grid/reports/3.pdf> (accessed on 12 June 2012).

United Nations, 'United Nations International Symposium on Trade Efficiency' (1994) <http://www.un.org/documents/ga/res/49/a49r101.htm> (accessed on 16 June 2012).

United States Customs and Border Protection, 'United States customs and border protection and European commission announce first joint operation combating counterfeit goods' (2008) <http://blogs.customhouseguide.com/news/> (accessed on 10 October 2008).

WCO, *Global trading environment benefits through WCO contribution to Intellectual Property Rights* <http://www.wcoomd.org/ie/En/Past_Events/trade99/ipre.html> (accessed on 10 December 2012).

WCO, 'Implementing the Revised Kyoto Convention' (2008) <www.wcoomd.org/.../PDFandDocuments/Procedures%20and%20Facilitation/implement_kyoto_uk.pdf> (accessed on 30 August 2009).

WCO, *Intellectual Property Rights* <http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/ep_intellectual_property_rights.aspx> (accessed on 14 March 2014).

WCO, *Istanbul Convention Administrative Committee* <http://www.wcoomd.org/en/about-us/wco-working-bodies/procedures_and_facilitation/istanbul_convention_administrative_committee.aspx> (accessed on 20 February 2008).

WCO, 'Provisional Standards Employed by Customs for Uniform Rights Enforcement (SECURE)' (2007) <http://keionline.org/misc-docs/SECURE_text.pdf> (accessed on 17 February 2012).

WCO, *Revised Kyoto Convention: Let's Talk* <www.wcoomd.org> (accessed on 2 August 2010).

WCO, 'SAFE: Framework of standards to secure and facilitate global trade' (WCO, 2012) <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/~/media/55F00628A9F94827B58ECA90C0F84F7F.ashx> (accessed on 18 April 2013).

WIPO, *Agreement concerning the Protection and Enforcement of Intellectual Property Rights between the Government of the United States of America and the Government of Jamaica* <http://www.wipo.int/wipolex/en/other_treaties/text.jsp?file_id=241401> (accessed on 12 March 2013).

WIPO, 'Existing Needs for Training and for Development of Enforcement Strategies' (10 September 2002) www.wipo.int/edocs/mdocs/.../en/wipo.../wipo_cme_2_rev.doc (accessed on 20 June 2013).

WIPO, *Paris Convention for the Protection of Industrial Property* WIPO http://www.wipo.int/treaties/en/text.jsp?file_id=288514 (accessed on 18 April 2013).

Woolcock, Steve, 'The Singapore Issues in Cancun: a failed negotiation ploy or a litmus test for global governance?' (Undated) <http://www.lse.ac.uk/internationalRelations/centresandunits/ITPU/docs/woolcocksingaporeissues.pdf> (accessed on 18 January 2012).

World Bank, 'WTO Trade Facilitation: Negotiations Support Guide' (2005) <http://newcustomscentre.files.wordpress.com/2012/09/wto_trade_facilitation_negotiations_support_guide.pdf> (accessed 10 November 2012).

WTO, 'Trade Facilitation Issues in the Doha Ministerial Declaration: Review of the GATT Articles' (2002) <http://docsonline.wto.org/Dol2FE/Pages/FormerScriptedSearch/directdoc.aspx?DDFDocuments/t/G/C/W426.doc> (accessed on 24 February 2012).

WTO, *Trade Facilitation: Cutting red tape at the border* <http://www.wto.org/english/thewto_e/minist_e/min99_e/english/about_e/15facil_e.htm> (accessed on 05 March 2012).

WTO, 'WTO: a training package: what is trade facilitation?' (1998) <http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto02/wto2_69.htm#note2> (accessed on 10 October 2007).

Newspaper/Magazine Articles/Periodicals

Chambers, Kim, 'New Zealand's Border Protection Notice System trounces the fake trade' (2007) (October) *WCO News*.

German Customs Administration, 'Germany makes IPR a top priority' (2007) (October) *WCO News*.

'Husband and Wife Music Pirates Jailed for £5m Fraud', *Evening Standard* (UK), 3 April 2008 <http://www.standard.co.uk/news/husband-and-wife-music-pirates-jailed-for-5m-fraud-6613088.html>

Khadem, Nassim, 'Knock-offs give bigger hit than drugs', *The Age* (NSW), 6 June 2007 <http://www.theage.com.au/news/business/knockoffs-give-bigger-hit-than-drugs/2007/06/05/1180809518530.html>.

Randall, Colin, 'French clamp down on fakes bought by tourists', *Daily Telegraph* (UK), 22 August 2005.

Websites

CBP, <http://apps.cbp.gov/eallegations> (accessed 19 September 2013).

Philippines Bureau of Customs, <http://customs.gov.ph/> (accessed 10 January 2013).

DFAT, <http://dfat.gov.au/trade/agreements/tpp/outcomes-documents/Pages/summary-of-the-tpp-agreement.aspx> (accessed on 7 December 2015).

GFPTT, <http://www.gfptt.org/Entities/TopicProfile.aspx?tid=4eeacac5-c34b-41be-b7f1-880e58d1a17f> (accessed on 18 March 2012).

Government of Dubai, <http://www.dubaicustoms.gov.ae/en/eServices/ServicesForTravellers/CustomsDuties/Pages/PermittedItems.aspx> (accessed on 25 April 2013).

Government of Japan, <http://www.meti.go.jp/policy/ipr/eng/infringe/custom/index.html> (accessed on 9 December 2013).

Government of Malaysia, <http://www.customs.gov.my/front.html> (accessed 2 September 2012).

Korea Customs Services, <http://www.customs.go.kr/kcshome/site/index.do?layoutSiteId=english> (accessed on 2 December 2013).

QBPC, http://www.qbpc.org.cn/article.php?pid=24 (accessed on 30 April 2012).

USTR, <https://ustr.gov/sites/default/files/03142014-TTIP-opportunities-for-SMEs.pdf> (accessed on 8 December 2015).

World Customs Organization <http://www.wcoomd.org/> (various dates).

WIPO, <http://www.wipo.int/cfd/en/index.thml > (various dates).

World Trade Point Federation, <http://www.wtpfed.org > (accessed on 12 February 2013).