

WIPO-WTO COLLOQUIUM PAPERS

RESEARCH PAPERS FROM THE WIPO-WTO COLLOQUIUM FOR TEACHERS OF INTELLECTUAL PROPERTY LAW 2013

WTO OMC

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

WORLD TRADE
ORGANIZATION

WIPO-WTO COLLOQUIUM PAPERS

RESEARCH PAPERS FROM THE 2013 WIPO-WTO COLLOQUIUM FOR TEACHERS OF INTELLECTUAL PROPERTY LAW

Compiled by the WIPO Academy and the WTO Intellectual Property Division

DISCLAIMER

The views and opinions expressed in the collection of papers from the WIPO-WTO Colloquium of Teachers of Intellectual Property (2013) are those of the authors. They do not necessarily reflect the positions of the organizations cooperating on this project. In particular, no views or legal analysis included in these papers should be attributed to WIPO or the WTO, or to their respective Secretariats.

http://www.wto.org/index.htm*© 2014. Copyright in this compilation is jointly owned by the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO). The contributing authors retain copyright in their individual works.*

ISBN 978-92-870-3938-5

EDITORS

Jonathan Hoffmann
Doruk Onvural
Sunil Gu

Karla Brepsant (copy-editor)

EDITORIAL BOARD

Mr Frederick M. Abbott
Professor
College of Law
Florida State University
United States of America

Mrs Sarah Driver
Senior Lecturer
Faculty of Law
Rhodes University
South Africa

Mr Denis Borges Barbosa
Professor of Intellectual Property Law
Head of Academic Division
Catholic University of Rio de Janeiro
and Rio Grande do Sul
Brazil

Mr Daniel J. Gervais
Professor
FedEx Research Professor of Law
Co-Director of Vanderbilt Intellectual Property
Programme
Vanderbilt Law School
United States of America

Mr Carlos Correa
Professor and Director
The Centre for Interdisciplinary Studies
on Industrial Property and Economics Law
University of Buenos Aires
Argentina

Dr N. S. Gopalakrishnan
Professor of HRD Chair on IPRs
School of Legal Studies
Cochin University of Science and Technology
India

Mr Antony Taubman
Director
Intellectual Property Division
World Trade Organization
Switzerland

Mr Marcelo Di Pietro
Director
WIPO Academy
World Intellectual Property Organization
Switzerland

Mrs Jayashree Watal
Counsellor
Intellectual Property Division
World Trade Organization
Switzerland

Mrs Karen Lee Rata
Head
Academic Institutions and Executive Programme
WIPO Academy
World Intellectual Property Organization
Switzerland

Mrs Xiaoping Wu
Counsellor
Intellectual Property Division
World Trade Organization
Switzerland

Ms Martha Chikowore
Training Officer
WIPO Academy
World Intellectual Property Organization
Switzerland

FOREWORD



Mr Francis Gurry



Mr Roberto Azevêdo

This volume is the fourth in a series of annual publications from the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO). Prepared by the WIPO-WTO Colloquium for Teachers of Intellectual Property, this collection of academic papers represents an important contribution to international scholarship in the field of intellectual property (IP). Today we witness ever increasing, more diverse forms of international interaction on IP, yet equally we see growing attention to differing national policy needs and social and developmental priorities in this field. The *Colloquium Papers* series highlights the importance of fostering scholarship in emerging IP jurisdictions, harvesting the insights from policy and academic debates from across the globe, and promoting mutual learning through the sharing of research and scholarship on a broader geographical base.

For over a decade, the annual WIPO-WTO Colloquium itself has played a central role in the joint capacity building programmes of WIPO and the WTO. This cooperation seeks to enrich dialogue on IP issues and to address the developmental and wider policy considerations that form an integral part of IP law and policy today. The Colloquium responds to the recognition that developmental benefits from the IP system can only be reaped through skilled adaptation to national circumstances and judicious use by informed practitioners. Equally, effective policy development at the national level needs increasingly to draw upon skilled, informed and sophisticated policy analysis. The Colloquium bolsters the capacity of those best placed to ensure truly sustainable, long-term benefits from the adept use of the IP system – those who teach the IP practitioners of the future, and those who conduct research on IP law and policy.

The programme has produced more than 2642 alumni. This is a diverse and active network of highly engaged teachers and researchers, which reaches across the developing world. Whilst this network is the principal focus of the programme, it also includes a number of developed countries. It is heartening to see the contributions of these scholars in many avenues – through their academic publications, through their active participation in national and international policy debates, through their own teaching and through their contribution to capacity building in the developing world.

We see the *Colloquium Papers* – an edited, peer-reviewed academic journal – as epitomizing the trend towards more diverse and yet more rigorous capacity building in IP law and policy. The four publications issued since 2010 draw together the participants' original insights into current IP issues in their countries, and give greater substance to the network of mutual learning and intellectual exchanges that characterize the Colloquium programme.

The latest publication, a selection of papers from the 2013 Colloquium, covers an impressive range of IP subject matter, including patents, trademarks, geographical indications, copyright, IP enforcement, and Internet domain names. The papers discuss policy issues, including food security, access to pharmaceutical products, transfer of technology, the interaction between domestic and international IP laws, and Internet governance, all of which are vital to the development of IP systems in developing countries. This publication series may now be presented as a significant new academic journal with unique coverage of IP law and policy focused on emerging IP jurisdictions.

In today's changing global economy, IP significantly influences the everyday lives of all citizens around the world. An international IP system that can adjust to the shifting global economic landscape, while also stimulating innovation and furthering development, demands the understanding, participation and cooperation of all peoples across the societal spectrum. Initiatives such as the Colloquium play an important role in building capacity, raising awareness, and engaging all societies that are affected by the evolution of the international IP system.

We congratulate the contributing scholars for their first rate research, and we thank the Editorial Board – a highly distinguished group of senior IP scholars – for their invaluable support and engagement, which has helped establish the *Papers* as a credible academic publication. We should also record our appreciation for the work of our colleagues in the WIPO Academy and the WTO IP Division in organizing the Colloquium and facilitating the publication. Finally, we commend the *Colloquium Papers* as an important emerging source for academic research to what we trust will be a wide and ever more diverse readership.



Francis Gurry
Director General
World Intellectual Property Organization



Roberto Azevêdo
Director-General
World Trade Organization

PREFACE

This volume – the fourth in the series of academic papers resulting from the WIPO-WTO Colloquium – encapsulates much that is challenging, significant and fascinating in the field of intellectual property (IP) today. Always with a strong international dimension, the IP system is undergoing an unprecedented phase of globalization and a building of international institutions, bringing with it a deepened understanding of the centrality of a balanced and effective IP system in economic and social development. Yet this same period has precipitated an intensive, wide-ranging process of inquiry about how to adapt and apply IP principles to ensure economic growth, sound public policy, and sustainable development in diverse settings across the globe, recognizing the diversity of economic, social and technological settings, national developmental priorities, and legal and commercial systems.

Intellectual property is seemingly ubiquitous in contemporary life, but its role and impact are both highly diverse and in need of careful analysis and informed debate. An IP dimension is present in many challenging public policy issues today. For instance, we see growing attention to its role in promoting public health, addressing climate change, and achieving food security, as well as its interaction with human rights and social and economic development. Intellectual property has been the subject of complex, multifaceted debates at the multilateral, regional and national levels over the rights of indigenous people, the conservation of biodiversity, the ethics and use of genetic resources, Internet governance, climate change technology, and access to education and medicine. And behind these debates lies an essential question: how to come to grips with the significant responsibility of IP systems in the current world economy, in international trade, and in national policy environment: how should IP systems be designed or adapted to promote economic development, stimulate innovation, and disseminate knowledge in a manner that balances the rights of all stakeholders?

The contemporary field of IP is therefore characterized by profound and searching debates on questions of essential public policy; an approach to policy-making that emphasizes empirical research, theoretical clarity, and achieves coherence with other areas of law; and the harvesting of practical experience from an ever widening base of national IP systems and participants in the policy and practice of IP. It is, therefore, a field in need of a deeper and wider research effort; sophisticated, informed and carefully tailored approaches to education and practical capacity building; and, above all, dialogue and debate founded on a richer base of information, theoretical understanding, practical experience, and knowledge of its implications in other areas of law and policy.

Both WIPO and the WTO have been called upon to play a role in strengthening capacity to deal with the intellectual challenges of these policy debates. This increasing diversity of demand for capacity-building support has had a profound impact on programme design and delivery. The WIPO Academy has developed a wide range of specialist courses and training activities to respond to this evolving pattern of demand, and to reach out to and support an ever widening range of stakeholders.

The WTO IP Division continues to broaden and tailor its technical cooperation and policy support activities, developing a wider engagement with current international issues and with a broader base of stakeholders, exemplified by work on public health issues. But none of these outcomes can be possible without partnerships – the sharing of ideas, pooling of resources, and coordination of practical activities – so that the necessary wide range of experience and expertise can be drawn on to meet diverse needs.

Both the WIPO Academy and the WTO Intellectual Property Division therefore enjoy many valuable partnerships as a central strategy in ensuring programme delivery. The Colloquium has exemplified and promoted current trends in technical assistance and capacity building: it builds upon and extends an existing partnership between WIPO and the WTO; it responds to the need for stronger, broader dialogue and a greater involvement of voices from all perspectives in contemporary debates; it recognizes the central role of indigenous capacity building and of the key contribution of IP teachers and researchers as the mainstay of sustainable development of the necessary IP expertise in developing countries; it transcends traditional boundaries between regions and between 'north' and 'south' to allow fruitful discourse on the future of IP systems. Most importantly, it recognizes the importance of extending beyond an educational function to one of bringing together a diverse group with the aim of reviving and refreshing dialogues on IP and its cognate fields.

The Colloquium has, in particular, laid emphasis on the role of participants as active players, as informed, stimulating teachers and researchers who bring to the two-week dialogue as much as they take away from it. Past feedback from participants stressed the need to capture, in more permanent form, the many insights gleaned from these few days of intensive, vigorous discussion. Participating teachers and researchers expressed important new ideas and insights to global debates that could enrich and inform the exchange among policymakers, the academic community, and the public at large.

These thoughts, guided very much by the participating teachers and researchers themselves, are what gave rise to the present publication, which is in a way a tribute to the intellectual energy and curiosity of the many alumni of the past Colloquia, with whom we continue to enjoy a range of partnerships and dialogue.

WIPO and the WTO both host numerous meetings every year, in Geneva and in many locations elsewhere, and under numerous headings: committees, seminars, workshops, roundtables, symposia, and so on. But amidst all this activity, the idea of a 'colloquium' has a special ring to it – for the WIPO-WTO Colloquium, it connotes a spirit of academic enquiry, a search for new ideas and new ways of analysing IP and related fields, through open debate, rigorous research, and new ways of communicating the complexities of IP law, practice and policy. We trust that this publication will bring to a wider community of researchers, policymakers and teachers some of the colloquium spirit that we have valued so much in this unique programme.

All of us who have participated in the Colloquium have benefited from the hard work and dedication of many colleagues within WIPO and the WTO Secretariat – notably, the WIPO Academy and the WTO Intellectual Property Division. All have contributed valuably to the design and delivery of this programme, and their spirit of collegiality makes a demanding programme also a pleasurable one.

We owe a particular debt of gratitude to the Editorial Board and the student Editors of the *Colloquium Papers*: they have been indispensable in ensuring that the Papers can be used as a trusted, academically sound and readable source of cutting edge IP scholarship from an impressive group of emerging scholars from across the developing world. Finally, we record our deep appreciation for the contributions made by individual scholars to this, and the preceding, volumes – we have come to know and respect their contributions to policy and legal scholarship, and we are sure that this active, informed and thoughtful participation in many of the key public policy debates of today will continue, exemplifying the important public service role performed by the scholarly community today.

Marcelo di Pietro
Director
WIPO Academy
World Intellectual Property Organization

Antony Taubman
Director
Intellectual Property Division
World Trade Organization

ACKNOWLEDGEMENTS

Thanks are extended to the staff of the WIPO Academy and the WTO Intellectual Property Division for their strong support for the project; to Jonathan Hoffmann, Doruk Onvural and Sunil Gu (editors) and Karla Brepsant (copy-editor) for conducting the editorial work; to Martha Chikowore and Xiaoping Wu for their work in organizing the 2010, 2011, 2012 and 2013 Colloquiums and coordinating this publication. Karen Lee Rata, Gao Hang and Jayashree Watal played a key role in the conception and development of the Colloquium initiative. We extend strong appreciation to all for their contributions, and to many other colleagues not mentioned here, who have done so much to make the Colloquium initiative a success.

CONTENTS

1 Fighting piracy in Azerbaijan: a survey and perspective on the current situation 1

Elnur Mammadli (Azerbaijan)

2 Enforcement of intellectual property rights in Special Customs Surveillance Zones of China 7

Dr Zhang Naigen (China)

3 Re-examining the public interest component of IPRs with special reference to plant breeders' rights 15

Dr Reem Anwar Ahmed Raslan (Egypt)

4 Justifications for claiming intellectual property protection in traditional herbal medicine and biodiversity conservation: prospects and challenges 23

Kahsay Debesu Gebray (Ethiopia)

5 The Indian film industry's battle against piracy: some reflections 35

Arpan Banerjee (India)

6 The economic impact of the TRIPS-Plus provision in the Jordan-United States Free Trade Agreement 45

Dr Taleb Awad Warrad (Jordan)

7 **Public health and intellectual property rights in the promotion of innovation: a Mongolian perspective 57**

Dambadarjaa Purevdorj (Mongolia)

8 Intellectual property issues in preferential trade agreements: the optimal model of coordination 63

Dr Tatiana Isachenko (Russia)

9 Intellectual property, competition law and access to pharmaceuticals: the relevance of a 'market approach' to the exercise of intellectual property rights 69

Dr Mor Bakhoum (Senegal)

10 Spain's approaches to the Anglo-American 'fair use' doctrine: do we need to reform the European system of copyright limitations and exceptions? 77

José Juan Castelló-Pastor (Spain)

11 Integration of modern technologies of intellectual property in public administration 89

Vadym Nersesov (Ukraine)

12 Traditional knowledge as a means of rural economic development in Zambia 97

Ackim Lungu (Zambia)

Contact persons 102

1 FIGHTING PIRACY IN AZERBAIJAN: A SURVEY AND PERSPECTIVE ON THE CURRENT SITUATION

[*]Elnur Mammadli

ABSTRACT

This article describes the current attempts to combat and regulate piracy of intellectual property in Azerbaijan. Further, it analyses a newly adopted law and its amendments on enforcement of intellectual property rights and the fight against piracy.

Keywords: *intellectual property, copyright, related rights, piracy, intellectual property enforcement, control marks, twinning project*

I. INTRODUCTION

Article 30 of the Constitution of the Republic of Azerbaijan vouchsafes intellectual property rights, including, in relevant part, copyright protection. The Constitution further states in Article 51 that everyone is free to carry out creative activity ranging from literary and artistic to scientific and technical activities. During the last 20 years, the Azerbaijani copyright system has developed and harmonized with international standards. However, the fight against piracy remains one of the most important issues of enforcing these intellectual property rights in Azerbaijan.

II. LEGISLATION

Three sources of law govern intellectual property rights and disputes within Azerbaijan, namely, domestic policy, international conventions and regional agreements.

A. DOMESTIC POLICY

Enabled by the Statute of the Copyright Agency via Presidential decree on 30 August 2005, the Copyright Agency of the Republic of Azerbaijan (the Agency) wields central executive power, enforcing state policy regarding the protection of copyright and related rights. The Agency administers five laws on copyright protection: the Law on Copyright and Related Rights (1996), the Law on Legal Protection of Topographies of Integrated Circuits (2002), the Law on Legal Protection of Expressions of Azerbaijan Folklore (2003), the Law on Legal Protection of Databases (2004), and the Law on Enforcement of Intellectual Property Rights and Fight against Piracy (2012).

B. INTERNATIONAL CONVENTIONS

The Republic of Azerbaijan has been a member of the World Intellectual Property Organization (WIPO) since 1995. Azerbaijan is also a contracting party to the Berne Convention for the Protection of Literary and Artistic Works (1999), the Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms (2001), the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (2005), the WIPO Copyright Treaty (WCT), the WIPO Performances and Phonograms Treaty (WPPT) (2006), and the Universal Copyright Convention. Lastly, a Cooperation Programmed between Azerbaijan and WIPO has existed since 2006.

C. REGIONAL AGREEMENTS

Azerbaijan has entered into three agreements between members of the Commonwealth of Independent Countries (CIS): the Agreement on Cooperation in the Field of Protection of Copyright and Related Rights (1993), the Agreement on Cooperation to Prevent Infringements in the Field of Intellectual Property (1998), and the Agreement on Cooperation on the Fight against Crimes in the Sphere of Computer Information (2001). Azerbaijan also has cooperation-related bilateral agreements on the protection of copyright and related rights with Uzbekistan (1997), Kazakhstan (1999), Ukraine (2002), Turkey (2005), and Tajikistan (2012) respectively.

III. LEGAL FRAMEWORK FOR THE FIGHT AGAINST PIRACY

Under Article 47 of the Law on Copyright and Related Rights, infringing copyright and related rights raises civil, administrative and criminal liabilities. Relevant to infringement analysis, Article 4 states that a 'pirated product' shall mean any copies of work and phonogram made (produced) and distributed without the consent of the right holder.

Article 50 of the Code of Administrative Offences addresses copyright infringement and the

[*] **Mr Elnur Mammadli** (Azerbaijan) graduated from the Department of International Law and International Relations of the Baku State University (BSU), Azerbaijan, in 1998. He received his Master's degree in International Relations from the same university. He works as Leading Counsellor at the Copyright Agency of the Republic of Azerbaijan, as well as lecturer at the Azerbaijan University of Languages. He was involved in the European Union-funded Twining Project 'Capacity Development for Enhancing Enforcement of Copyright and Related Rights in the Republic of Azerbaijan' as Resident Twining Adviser.

In 2012 Mr Mammadli received an LL.M. in Intellectual Property, jointly offered by the University of Turin, the World Intellectual Property Organization (WIPO), and the International Labour Organization (ILO). He is a Ph.D Candidate at the University of Patras, Greece and his tentative doctoral research relates to copyright infringement prevention in the digital environment, looking to the European experience and implementation attempts in Azerbaijan, as well as focusing on new algorithms and software development aimed at copyright protection, management, and monitoring.

infringement of related rights where the damage is 'insignificant.'[1] In such cases, infringers face a fine of AZN 15 to 40[2] and confiscation of both pirated copies and any materials or equipment used for making pirated products. Also, infringing copyright of the topographies of integrated circuits, in a cause of insignificant damage, involves a fine from AZN 20 to 40 (Article 50-1).

In causes of significant damage, Azerbaijan approaches infringement of folklore expressions and databases differently depending on who infringes: AZN 15 to 25 fine for physical entities, AZN 30 to 50 for officials, and AZN 100 to 150 for legal entities. Just like the provisions mentioned above, infringers of folklore expressions and databases face confiscation of pirated copies, as well as materials and equipment used to produce the pirated copies (Articles 50-2 and 50-3). Also, broadcasting without the consent of television or radio broadcasting organizations, or copying, selling, as well as publicly performing broadcasts without consent involve fines from AZN 70 to 90 for officials and from AZN 250 to 300 for legal entities (Articles 187.2).[3]

In the case of significant damage, copyright infringement could result in criminal liability. According to Article 165 of the Criminal Code, copyright infringement and infringement of related rights, in a cause of significant damage[4], involve a fine from AZN 100 to 500 or community service of 160 to 200 hours; and if the infringer commits the same acts repeatedly, or commits such infringement with a pre-arranged group of persons or organized group, fines increase to AZN 500 to 1000 with possible imprisonment for a term up to three years.

At the same time, Article 45.2 of the Law on Copyright and Related Rights provides that the court, while hearing cases on copyright and related rights issues outside of general civil-legal enforcement, shall have the right to issue the following penalties:

(a) collection of infringer's income resulting from infringement of copyright and related rights in lieu of damage reimbursement;

(b) the payment of compensation in an amount from AZN 110 to 55000, in lieu of damage reimbursement or income collection;

(c) confiscation of materials and equipment used for the reproduction (production) of pirated copies in accordance with court resolution, taking into account the severity of infringement and legal interests of other persons; and

(d) confiscation or destruction of pirated copies, without compensation to the infringing party.

On 1 April 2008 and 30 September 2010, substantial amendments were made to the Law on Copyright and Related Rights, bringing the national legislation closer aligned with the WCT and the WPPT and EU directives. Lastly, the New Customs Code went into effect on 1 January 2012. Chapter 49 (Articles 278-288) of the new Customs Code is related to border measures over objects of intellectual property.

IV. MEASURES AGAINST PIRACY

In the last few years, Azerbaijan has taken a number of measures to prevent piracy. In 2006 the Office of the United States Trade Representative (USTR) removed Azerbaijan from the USTR Special 301 Report's Watch List due to progress with regard to intellectual property right enforcement.[5] In 2009 Azerbaijan joined the Convention on Cybercrime. Lastly, in accordance with an agreement signed with Microsoft Corporation in May 2011, all public bodies in Azerbaijan have started to use legally licensed software.

The 2012 BSA Piracy Study showed that 87 per cent of software in Azerbaijan was pirated, down from 94 per cent in 2006.[6] There were additional improvements in decreasing piracy in the publishing sector from 61 to 33 per cent and in the CD/DVD market from 90 to 68 per cent over the past five years in Azerbaijan. The share of Azerbaijan's GDP occupied by copyright-based industries has increased from 3.1 per cent in 2008 to 4.5 per cent in 2012.[7]

During the past few years, the State Service for Antimonopoly Policy and Consumer Rights Protection under the Ministry of Economy and Industry has implemented a monitoring system of the audiovisual market. Representatives of the Service have levied financial sanctions against distributers and sellers of pirated CD/DVDs; as a

[1] 'Insignificant damage' means the amount of damage equal up to AZN 1,000.

[2] 1 AZN (Azerbaijani Manat) = USD 1,275. Central Bank of the Republic of Azerbaijan <http://www.nba.az/> accessed 12 February 2014.

[3] Code on Administrative Offences of the Republic of Azerbaijan <http://vn.taxes.gov.az/2009/uploads/qanun/2011/mecelleler/inzibati_xetalar_mecellesi_eng.pdf>

[4] 'Significant damage' means an amount of damage more than AZN 1, 000.

[5] Office of the United States Trade Representative, Special 301 Report,[2006] 3 <http://www.ustr.gov/archive/assets/Document_Library/Reports_Publications/2006/2006_Special_301_Review/asset_upload_file473_9336.pdf>

[6] BSA Global Software Piracy Study, Ninth Edition, 8 May 2012 <http://globalstudy.bsa.org/2011/downloads/study_pdf/2011_BSA_Piracy_Study-Standard.pdf>

[7] K Imanov, IT-IP: View to the Future of Intellectual Property, Intellectual Property in Speeches and Presentations II (Baku 2013).

result, about 10,000 discs were confiscated and destroyed.

In order to increase public awareness, the Copyright Agency has held a number of conferences, seminars and round-tables on intellectual property issues. Other high-profile events coinciding with the Agency's efforts included a concert of famous Azerbaijani singers under the slogan 'Fight against pirates' in January 2010, as well as a 2012 concert by Rihanna in Baku devoted to the fight against piracy in the musical industry.

In 2011–2013 the EU-financed twinning project 'Capacity Development for Enhancing Enforcement of Copyright and Related Rights in the Republic of Azerbaijan' was implemented. The main objectives of the project were (1) harmonizing Azerbaijan copyright legislation with the EU acquis; (2) assisting and enhancing the institutional and technological capacity of the Copyright Agency; (3) strengthening the copyright-protection regime; (4) fighting piracy; (5) developing a system of digital rights management (DRM); and (6) increasing public awareness.[8] A consortium organization with representatives from Greece, Germany and Spain implemented the project. During the project, the consortium organizers trained judges, customs officials, police and security personnel, staff from the Copyright Agency and representatives from collective management societies.

V. THE LAW ON ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS AND THE FIGHT AGAINST PIRACY

In 2012 Azerbaijan adopted the Law on Enforcement of Intellectual Property Rights and the Fight against Piracy (Fight against Piracy Law). The Fight against Piracy Law regulates the interplay between the enforcement of intellectual property rights, the protection of right holders' interests, and prevention of infringement, including illegal production and distribution of the copies of intellectual property objects. According to Article 5.1 of the Fight against Piracy Law, upon the request of the right holder or his or her representative, the court can order the defendant to inform the right holder or her representative about third parties that were directly or indirectly involved in the production and distribution of pirated copies and infringing goods or services and their channels of distribution. Under Article 5.2, the court can order infringers to produce both the names and addresses of persons engaged in the production, distribution and sale of pirated and counterfeited goods, and the quantity and prices of those counterfeited goods. And Article 7 gives courts the right to issue judgments to remove infringing goods from commercial networks, as well as withdraw, confiscate or destroy the materials and equipment utilized to produce the infringing goods.

Chapter III of the Fight against Piracy Law provides administrative measures against the production and distribution of pirated products. One such measure is the use of unique digital codes and international standard identification numbers such as ISBN, ISSN, ISAN and ISRC. Such codes enable the identification of information by the source of production of those copyrighted and otherwise protected objects.[9]

One of the principal requirements of this law is stamping copyright or otherwise protected copies of audiovisual works, phonograms, videograms, computer programs, databases, or books with control marks (Article 13.1). Distributing copyrighted objects or objects protected by copyright and related rights without these control marks is prohibited.

According to the Fight against Piracy Law, the Copyright Agency controls the use of property rights of authors, performers and phonogram producers in digital networks and arranges collective management of these rights, in accordance with the interests and aims of right holders, taking appropriate measures in cases of infringement, circumvention of technological protection measures, and removal or alteration of any electronic rights-management information without authority from the right holder.

In connection with the implementation of the Fight against Piracy Law, amendments have been made to the Code of Administrative Offences and the Criminal Code. According to new Article 229-1 of the Code of Administrative Offences, the sale or any distribution without a control mark—as well storage for sale and distribution without a control mark—of goods, products and information materials that should be stamped with control marks, shall involve a fine, per item, of AZN 50 for physical entities, AZN 100 for officials and AZN 150 for legal entities with confiscation of goods, products, and information materials without control marks. Another new article, Article 205-1, provides for fines of AZN 1000 for physical entities, AZN 2000 for officials, and AZN 3000 for legal entities who intentional destroy, falsify, illegally produce, use, or sell control marks; this provision additionally calls for confiscation of manufactured (produced), used, and sold control marks, as well as materials and equipment used to manufacture and distribute the marks.

[8] E Mammadli, 'Challenges of the Fight against Piracy in Azerbaijan within the Approximation to the EU Acquis' (2011) pp. 38–52 <www.unito.it/unitoWAR/ShowBinary/FSRepo/D058/Papers/Turin_Book_2011.pdf>

[9] K Imanov, 'Intellectual Property Rights Management in Digital Networks' (Baku 2009) pp. 134–138.

According to newly amended Article 205-2 of the Criminal Code, the intentional destruction, falsification, illegal production, use, and sale of control marks, in cases of significant damage, shall involve a fine of AZN 3000 or community service from 320 to 480 hours; and if the same prohibited acts are (1) committed repeatedly, or (2) by preliminarily arranged groups of persons or organized groups, or (3) in cases of harm exceeding significant damage, the courts shall fine guilty parties AZN 7000 or imprison them for a term of two to four years.

The Copyright Agency has proposed to increase the amount of fines and penalties for copyright infringement, and to decrease the amount of 'insignificant damage' from AZN 100 to 1000 in the Code of Administrative Offences (Articles 50, 50-1, 50-2 and 50-3) and the Criminal Code (Article 165).

VI. PERSPECTIVES

The principal actor in the implementation of the new Fight against Piracy Law will be the Centre for Enforcement of Intellectual Property Rights (Enforcement Centre) under the auspices of the Agency. The main functions of the Enforcement Centre are fostering the growth of an intellectual property culture, conducting research in the field of intellectual property and organizing training courses for law enforcement bodies. The Enforcement Centre will be a base for intellectual property enforcement measures, including preventing the illegal use of copyright-protected works (such as computer programs, phonograms, and audiovisual works), registering and delivering unique digital codes (such as international standard identification numbers and control marks), and establishing Digital Rights Management (DRM) for electronic commerce of copyright works. In September 2012, the Enforcement Centre was accepted into the WIPO Global Network on Intellectual Property Academies.[10] This opened new perspectives for the effective implementation of the Enforcement Centre's activities, cooperation and exchange of experience with intellectual property academies and training centres of other countries. As a result of these cooperative measures and as well as the implemented measures described above, the economic significance of intellectual property in Azerbaijan has increased and the level of piracy has decreased, on average, 9–28 per cent.[11] Long-term goals of the Enforcement Centre include a multinational training centre.

Other forward-looking Azerbaijani initiatives regarding intellectual property issues include the Development Concept—'Azerbaijan 2020: Look into the Future' approved by Presidential Degree on 29 December 2012. Also, draft documents prepared by the Agency and issued by the National Strategy and the State Programme on Intellectual Property address issues and propose corrective measures for combatting infringement of intellectual property rights, including piracy and counterfeiting.

VII. CONCLUSIONS

Piracy and infringement of intellectual property are a constantly growing global problem. Involvement and close cooperation of all stakeholders in Azerbaijan are required in order to resolve this problem. Improvement of legislation, strengthening of enforcement activities, use of new technological measures, and public awareness will help in decreasing copyright piracy.

The Agency has proposed the establishment of an intergovernmental Anti-Piracy Commission under the Cabinet of Ministers for the purpose of coordinating the activities of the various governmental bodies concerned with intellectual property enforcement. Creation of such close cooperation between state institutions will provide a coordinated system of information sharing, market analyses, and data-statistics compilation, additionally allowing for the publishing of information relating to legal court actions and seizures of pirated product. The establishment of specialized intellectual property units within courts, police, prosecutors, and other law-enforcement bodies, as well as specially training officials from relevant governmental institutions, will assist in improving the more professional and prompt prevention of piracy cases.

BIBLIOGRAPHY

Azerbaijani Copyright System in 20 Years, Baku, 2013

BSA Global Software Piracy Study, Ninth Edition, 8 May 2012 <http://globalstudy.bsa.org/2011/downloads/study_pdf/2011_BSA_Piracy_Study-Standard.pdf>

Imanov K, 'Intellectual Property Rights Management in Digital Networks' (2009) 134–138

Imanov K, IT-IP: View to the Future of Intellectual Property, Intellectual Property in Speeches and Presentations II (Baku 2013)

[10] Azerbaijani Copyright System in 20 Years, (Baku 2013) 37.

[11] M Najafbayli and E Teymurov, 'Protection and Enforcement of Intellectual Property Rights in Azerbaijan' <http://www.ubis-geneva.ch/protection-enforcement-intellectual-property-rights-azerbaijan/>

Mammadli E, 'Challenges of the Fight against Piracy in Azerbaijan within the Approximation to the EU Acquis, Master of Laws in Intellectual Property' (2011) 38–52 <www.unito.it/unitoWAR/ShowBinary/FSRepo/D058/Papers/Turin_Book_2011.pdf>

Najafbayli M and Teymurov E, 'Protection and Enforcement of Intellectual Property Rights in Azerbaijan' <http://www.ubis-geneva.ch/protection-enforcement-intellectual-property-rights-azerbaijan/>

Office of the United States Trade Representative, Special 301 Report (2006) 3 <http://www.ustr.gov/archive/assets/Document_Library/Reports_Publications/2006/2006_Special_301_Review/asset_upload_file473_9336.pdf>

2 ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IN CHINA'S SPECIAL CUSTOMS SURVEILLANCE ZONES

* **Dr Zhang Naigen**

ABSTRACT

This article reviews the current regime to enforce intellectual property rights (IPRs) in China's Special Customs Surveillance Zones. Further, it analyses the challenge ahead as China emerges as a major economic power and provides legal solutions in comparison with experiences of the United States and the European Union.

Keywords*: enforcement, intellectual property rights, special customs surveillance zone, anti-counterfeit good, comparison.*

I. INTRODUCTION

The first Special Customs Surveillance Zone (SCSZ) was established in June 1990 as the landmark of development of China's open-door policy.[1] In accordance with Article 34 of China's Customs Law amended in 2000[2], the State Council has authority to approve the establishment of SCSZs in Chinese territory. The SCSZ shall be operated under the relevant administrative regulations, such as the Customs Rule on Operation of the Bonded and Logistics Area[3], which provides that SCSZs shall include a bonded area, an export processing area, a bonded logistics area, a bonded seaport, and other areas under special customs surveillance by approval of the State Council. In November 2012, the State Council issued a guideline as a national policy to promote the development of SCSZs[4], directing the integration of six existing SCSZs for the efficient management and improvement of policy-making processes and the multiple functions of these zones. Any newly established SCSZ shall be named 'comprehensive bonded area' under this policy.

Since July 2013, the Chinese national Government led by the new Prime Minister, Li Keqiang. has moved to a more liberalized approach to SCSZs by recently establishing the China (Shanghai) Pilot Free Trade Zone (PFTZ).[5] The PFTZ merges the four existing SCSZs in Shanghai, namely the Shanghai Waigaoqiao Bonded Zone, the Waigaoqiao Bonded Logistics Zone, the Yangshan Bonded Port Zone and the Pudong Airport Comprehensive Bonded Zone, to create the single largest SCSZ (total area of 28.78 square kilometres) in China. This merger aims to improve trade facilities and to create more efficient surveillance and an enhanced environment of legal regimes in line with international standards.

In principle, China's Customs Law provides that the Customs protection of IPRs shall be applied to any inward and outward goods, including bonded goods. The protection of IPRs includes the suspension by Chinese Customs Authorities of the release to exportation or importation of counterfeit trademark, pirated copyright goods and goods infringing patent under the Chinese legal regime, which is in compliance with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), in particular, Article 51 which requires that customs authorities shall suspend the release of counterfeit trademark or pirated copyright goods, and may provide proceedings against other infringements of IPRs such as patent violations, even though the determination of such infringements is not straightforward. But, in practice, the SCSZs are the grey areas in Customs protection of IPRs. Therefore, it is necessary to review the existing laws and regulations in this regard with a focus on Customs enforcements. China has become the major source of counterfeit goods destined for the United States and the European Union, while emerging as one of the largest exporters of merchandise in the world after China's accession to the World Trade Organization (WTO).[6] The challenge for China now is to significantly reduce its exportation of counterfeit goods. The improvement of Customs enforcement of IPRs in SCSZs will be an important part of China's efforts to respond to this challenge.

II. REVIEW OF CHINA'S LEGAL REGIME TO ENFORCE IPRs IN SPECIAL CUSTOMS SURVEILLANCE ZONES

China promulgated the Regulation of Customs Protection of Intellectual Property Rights in 1995.[7] The 2000 amendment of China's Customs Law added

* **Dr Zhang Naigen** (China), University Professor, Director, Centre for International Law at Law School and the Centre for Intellectual Property, Fudan University, Shanghai.

[1] More information is available on the China (Shanghai) Pilot Free Trade Zone website: <http://en.shftz.gov.cn/> and <http://www.ysftpa.gov.cn/WebViewPublic/homepage.aspx> accessed 10 October 2013.

[2] Customs Law of the People's Republic of China (adopted on 22 January 1987, amended on 8 July 2000). Text in English available on the NPC's Database of Laws and Regulations website: <http://www.npc.gov.cn/englishnpc/Law/2007-12/12/content_1383931.htm> accessed 10 October 2013.

[3] The Customs Rule on Operation of the Bonded and Logistics Area (issued on 28 November 2005, revised on 15 March 2010).

[4] State Council Guideline to Promote Development of Special Customs Areas ([2012] No. 58), 2 November 2012.

[5] It was officially established on 29 September 2013. The State Council Announcement on the Overall Programme of the China (Shanghai) Pilot Free Trade Zone [2013] No 38. Document available on the China Central Government website: <http://www.gov.cn/zwgk/2013-09/27/content_2496147.htm> accessed 10 October 2013.

[6] China officially became the 143rd Member of the WTO on 11 December 2001.

[7] Regulations of the People's Republic of China on Customs Protection of Intellectual Property Rights (adopted on 5 July 1995, amended on 17 March 2010).

Article 44 and Article 91 regarding the Customs protection of IPRs, which provide that 'Customs shall, in accordance with laws and administrative regulations, protect the intellectual property right relating to inward and outward goods'. Chapter III of China's Customs Law entitled 'Inward and Outward Goods' includes three categories: (1) import goods and export goods; (2) transit, transhipment and through goods;[8] and (3) bonded goods. All these goods are subjected to Customs surveillance. Therefore, in principle, the bonded goods should not be excluded from the Customs enforcement of IPRs.

It is interesting to note that China's Customs Law expressly provides that:

> Where it is necessary to declare to the Customs the status of intellectual property right, the consignee for import goods and the consigner for export goods as well as their agents shall, in accordance with State regulations, make a truthful declaration to the Customs and produce supporting documents for the lawful use of the right.[9]

This means that even though China's Customs is responsible for the protection of IPRs related to inward and outward goods, including bonded goods, the procedure of Customs enforcement of IPRs such as right holders' declaration of their IPRs for Customs to take necessary action does not address bonded goods. Bonded goods are seemingly excluded from Customs enforcement of IPRs. Based on this exclusion, Article 2 of the Regulation of Customs Protection of Intellectual Property Rights provides that this Regulation shall be only applied to IPRs 'related to import or export goods'. These legal texts make it clear that the enforcement of IPRs by China's Customs is limited to imported and exported goods.

The situation is complicated by the principle of China's Customs Law on the one hand, and the procedures provided by this Law itself, as well as the Customs Regulation Protection of IPRs on the other hand. The situation is even more complicated if we examine Customs statistics that actually treat bonded goods as imported and exported goods, because under China's Regulation on Customs Statistics[10] and Customs' interpretation on 'import and export goods' recorded in Customs statistics, the scope of Customs records of statistics extends to the bonded goods. These bonded goods, with the approval of the Customs, enter into Chinese territory without going through the formalities to pay duties and are reshipped out of the territory after being stored, processed or assembled in Chinese territory. It has also allowed SCSZs, such as the bonded logistics area and the bonded area to 'store import and export goods or other goods without going through Customs formalities', according to the Customs Rule on Operation of the Bonded and Logistics Area and the Customs Temporary Rule on Bonded Seaport Area.[11] In a sense, the bonded goods to be reshipped out of the territory are treated as import and export goods for the purpose of Customs statistics.

In contrast with Article 2 of the Regulation of Customs Protection of Intellectual Property Rights mentioned above, which is limited in its application to IPRs related to import and export goods, the Implementing Rule of this Regulation requests IPR holders to provide the necessary information about 'inward and outward Customs', which includes the Customs in SCSZs, application of Customs recordation of IPRs, or detention of suspected infringing goods.[12] In practice, the cases infringing IPRs in SCSZs are included in the annual report of Customs' enforcement of IPRs.[13] However, no such cases have been disclosed.

One could draw the preliminary conclusion that confusion remains in the texts of China's Customs Law and China's Regulations and Implementing Rules regarding Customs protection of IPRs in SCSZs. It seems that China's Customs does enforce IPRs in SCSZs, but no cases are available for the public yet. Overall, we might conclude that the current legal regime is not effective for China's Customs to take the necessary actions for IPR enforcement in SCSZs.

III. CHALLENGES AHEAD FOR CHINA TO IMPROVE IPR ENFORCEMENT IN SPECIAL CUSTOMS SURVEILLANCE ZONES

Apparently, China has no further obligation to improve IPR enforcement in SCSZs under TRIPS. For the Members of the World Trade Organization (WTO), TRIPS provides the procedures suspending release of import goods suspected of infringing IPRs upon either approving the right holders' application of detention by customs authorities or initiating such

[8] See Zhang Naigen, 'Goods in Transit: Enforcement of IP Rights by Customs Officers', Asia Pacific Law Review Volume 20, No. 2, 2012.
[9] Article 44.2 of the Customs Law of the People's Republic of China.
[10] Regulations of the People's Republic of China on Customs Statistics (entered into force on 1 March 2006).
[11] Customs Rule on Operation of the Bonded and Logistics Area (amended on 29 August 2007).
[12] Implementing Rule of Regulation on Customs Protection of Intellectual Property Rights (issued on 3 March 2009, entered into force on 1 July 2009).
[13] See the 2008, 2009 and 2010 Annual Reports on China Customs Enforcement of IPR: <http://english.customs.gov.cn/publish/portal191/tab47812/info391083.htm> accessed 10 October 2013.

procedure by ex officio actions.[14] It is optional for WTO Members to provide customs measures for the protection of IPRs related to export goods, but no obligation is imposed to protect IPRs related to goods in transit.[15] China's current legal regime has fully implemented its TRIPS obligation in this regard if the bonded goods are excluded from the category of import and export goods. However, the bonded goods are actually treated as import and export goods in SCSZs. Thus, China must improve its Customs enforcement of IPRs in SCSZs.

Instead of further analysing whether China's current legal regime is consistent with the TRIPS Agreement, China should focus on its challenge ahead as the largest exporter of commodities in the world.[16] The focus should shift to finding solutions to reduce its exportation of counterfeit trademark and pirated copyright goods that are mostly destined for the United States and European Union. The United States and the European Union are, respectively, the largest and the second largest trade partners with China. It is true that China has made considerable efforts to enforce IPRs related to import and export goods. In fact, almost 100 per cent of goods suspended or detained by Chinese Customs officers were export goods. However, more than 70 per cent of counterfeit trademark and pirated copyright goods detained or destroyed by the US and EU customs authorities in 2009 and 2010 came from China.[17] China not only distorts normal international trade, but it also damages the reputation of goods made in China.[18] What are the root causes of this issue? Official statistics show that 52 per cent of Chinese export goods in 2012 were exportations related to Original Equipment Manufacturer (OEM) and outward goods from SCSZs, including bonded goods.[19] It is very likely that some bonded goods reshipped out of SCSZs after being stored, processed or assembled in SCSZs, are counterfeited and pirated copyright goods. This likelihood becomes more critical nowadays because nearly 100 different SCSZs established in China have more functions such as research and development (R&D), industrial designs, brand-creating activities, manufacture of essential parts of IT products and integrated multiple-bonded processing, and logistics and services. All this is in addition to the original functions of SCSZs: foreign trade, outward processing, free warehouses and exhibition of bonded products.[20] These developments make IPR issues more complicated for China's Customs surveillance in SCSZs.

One of the purposes of establishing the China (Shanghai) PFTZ is that the legal environment of norms should be set with reference to international standards so other SCSZs can learn for improvement. What is the international standard of the free trade zone? This standard might be found in the International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention).[21]

IV. INTERNATIONAL STANDARDS FOR CHINA TO IMPROVE IPR ENFORCEMENT IN SPECIAL CUSTOMS SURVEILLANCE ZONES

The free trade zone (or free zones) is defined by Specific Annex D2 of the Kyoto Convention as 'a part of the territory of a Contracting Party where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the Customs territory'.[22] Specific Annex D2 also provides a standard (5 of Admission of goods), directing that 'Admission to a free zone shall be authorized not only for goods imported directly from abroad but also for goods brought from the Customs territory of the Contracting Party concerned'. If it is only referred to as the definition and standard as such, all existing SCSZs in Shanghai would already be compliant with international standards, because the first local regulation—Regulation of Shanghai Waigaoqiao Bonded Area[23] promulgated in 1996—stipulates that any goods are free to be imported from or exported abroad directly as inward or outward goods without payment of any duties or fees for importation or exportation. Accordingly, any goods brought into the bonded area from non-bonded areas in China, or adversely carried from the bonded area to non-bonded area, shall be treated as export goods or import goods. Hence, there are no differences between the free trade zone defined by

[14] Articles 51 and 58 of the TRIPS Agreement.
[15] Footnote 13 of the TRIPS Agreement.
[16] China has been the largest exporter of commodities since 2009. See WTO International Trade Statistics: <http://www.wto.org/english/news_e/pres10_e/pr598_e.htm> accessed 10 October 2013.
[17] See US CBP, ICE Release Annual Report on Counterfeit Goods Seized（3 December 2009): <http://www.cbp.gov/archived/xp/cgov/newsroom/news_releases/archives/2009_news_releases/dec2009___/12032009_2.xml.html> and EU Commission: Facts and Figures (2011): <http://ec.europa.eu/taxation_customs/customs/customs_controls/counterfeit_piracy/statistics/index_en.htm> accessed 10 October 2013.
[18] Owing to so many counterfeit goods originating from China, an application for an EC trademark 'Not made in China' was filed (see EC Trademark application No. 004688561), but it was rejected because of 'public policy' consideration by the examiner. See Wolf Meier-Ewert, 'Trademark and Designs' (June 2013) presented at the WIPO-WTO Colloquium for Teachers of Intellectual Property.
[19] See China Customs Statistics on Trade: <http://www.customs.gov.cn/publish/portal0/tab44604/module109000/info414066.htm> accessed 10 October 2013.
[20] See State Council Guideline to Promote Development of Special Customs Areas ([2012] No. 58).
[21] The International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention) entered into force in 1974 and was revised in 1999.
[22] Specific Annex Guidelines: D2 Free Zones.
[23] Regulation of Shanghai Waigaoqiao Bonded Area (adopted on 19 December 1996).

the Kyoto Convention and the existing SCSZs in China. What should be done to set the legal environment of norms in the China (Shanghai) PFTZ with reference to international standards?

In accordance with the recommended practice of the Kyoto Convention[24], 'admission to a free zone of goods brought from abroad shall not be refused solely on the grounds that the goods are liable to prohibitions or restrictions other than those imposed on grounds of the protection of patents, trademarks and copyrights', which shall be regarded as the international standard that is an essential part of the legal norms set in the China (Shanghai) PFTZ. In this respect, China's Customs shall enforce IPRs related to goods into or out of the free trade zones directly from or to foreign countries. As mentioned above, China's Customs has failed to take effective measures to enforce IPRs with reference to the international standard of the Kyoto Convention. Relevant texts and practices are confusing the legal regime.

China should learn from the experiences of other nations to improve IPRs in SCSZs while using the international standards or recommended practices of the Kyoto Convention as references. The United States was the first country to establish Foreign Trade Zones (FTZs) in the 1930s.[25] The FTZ Board under the Department of Commerce was responsible for the establishment, maintenance and administration of zones under the FTZ Act. Section 81(c) of the FTZ Act provides that the merchandise brought into the FTZ would be exempted from customs laws. Furthermore, Section 400.1 of the FTZ Regulation[26] provides that under zone procedures, foreign and domestic merchandise may be admitted into zones for operations such as storage, exhibition, assembly, manufacture and processing without being subject to formal customs entry procedures and payment of duties. This is true unless and until the foreign merchandise enters the customs territory for domestic consumption. In the United States, each state has FTZs and there are 558 subzones operated by private companies nationwide.[27] The Customs Regulation does not expressly provide that the procedures of Customs protections of IPRs shall be applied to FTZs, but the FTZ Manual includes Chapter 13 regarding enforcement actions in FTZs.[28] Section 13.17 of the Manual, relating to search, arrest and seizure, provides that merchandise imported without the consent of trademark holders, or with a counterfeit trademark might be seized. This manual is not itself law, but customs enforcement of IPRs in FTZs considers it as a guideline with legal character. In short, any counterfeit goods shall be subjected to seizure in FTZs.

European nations have a tradition of free port dating back to the 15th century. The modern free zones and free warehouses are established under the Community Customs Code.[29] The Code deems free zones and free warehouses (including attendant premises) located within the specified territory to be outside the Community Customs Territory for purposes of import duties and commercial-policy import measures, provided that goods are not released for free circulation, placed under another customs procedure, or used or consumed under conditions other than those provided for in customs regulations.[30] Under the European Regulation on customs enforcement of IPRs[31], in the cases where counterfeit goods, pirated goods, and, more generally, goods infringing IPR originate in or come from third countries, their introduction into Community customs territory should be prohibited and a procedure should be set up to enable the customs authorities to enforce this prohibition as effectively as possible. This includes their transhipment, release for free circulation in the Community, placing under a suspensive procedure, and placing in a free zone or free warehouse.

Based on the recommended practice of the Kyoto Convention and the experiences in the United States and the European Union to enforce IPRs in their FTZs or free zones, it can be concluded that these zones shall not be exempted from the customs enforcement of IPRs. Within this international landscape, China must improve IPR enforcement in SCSZs, in particular, the China (Shanghai) PFTZ.

[24] 5 Recommendation Practice of D2 Free Zones.
[25] Foreign-Trade Zones Act of 18 June 1934, as amended (Pub. L. 397, 73rd Congress, 48 Stat. 998-1003 (19 U.S.C. 81a-81u).
[26] 15 CFR Part 400 - FTZ Regulations.
[27] See US List of FTZs (last update: 19 July 2013) <http://ia.ita.doc.gov/ftzpage/letters/ftzlist-map.html> accessed 10 October 2013.
[28] Foreign-Trade Zones Manual, Homeland Security, US Customs and Board Protection Office of Field Operations, Publication No: 0000-0559A, 2011. p 202.
[29] Council Regulation (EEC) 2913/92 of 12 October 1992 establishing the Community Customs Code.
[30] Francis Snyder, *International Trade and Customs Law of the European Union*, (Butterworth, 1998) 122.
[31] Council Regulations (EC) No 608/2013 of the European Parliament and of the Council of 12 June 2013 concerning customs enforcement of intellectual property rights and repealing Council Regulation [EC] No. 1383/2003. See <http://www.wipo.int/wipolex/en/details.jsp?id=13571> accessed 9 February 2014.

V. LEGAL SOLUTIONS FOR CHINA TO IMPROVE IPR ENFORCEMENT IN SPECIAL CUSTOMS SURVEILLANCE ZONES

A. TO AMEND CHINA'S CUSTOMS LAW AND REGULATION OF CUSTOMS PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

In order to eliminate legislative confusion, China's Customs Law must be amended again. In particular, Article 44 of The Customs Law should be amended as follows:

> Customs shall, in accordance with laws and administrative regulations, protect the intellectual property right relating to inward and outward goods. The inward and outward goods in special Custom surveillance zones shall be treated as imported and exported goods for the purpose of Customs protection intellectual property rights (to be added).

This amendment is preferred because the Customs Law has already been, in principle, applied to SCSZs for the enforcement of IPRs, but it is also limited to Customs recordation of IPRs for import and export goods, which are subject to customs formalities to pay duties. The inward and outward goods are not subject to any duties, fees and customs formalities for import and export goods. The suggested amendment will clarify the scope of China's Customs enforcement of IPRs, which shall not only apply to the normal import and export goods, but also to the inward and outward goods in SCSZs, even though these goods have already been treated as import and export goods for Customs statistics in China.

Accordingly, adding Article 3.3 of the Regulation of Customs Protection of Intellectual Property Rights as follows is also suggested:

> The Customs protection for intellectual property rights shall apply to special Custom surveillance zones. The implementing rules shall be promulgated by the Customs Administration.

B. TO PROMULGATE THE RULE ON PROTECTION OF INTELLECTUAL PROPERTY RIGHTS IN SPECIAL CUSTOMS SURVEILLANCE ZONES

Considering the unique character of SCSZs, i.e. as both integrated areas of the customs territory coming under customs surveillance and also areas outside of the customs territory in terms of inward and outward goods' exemption from any payment formalities for duties of import and export goods, the mechanism to enforce IPRs in SCSZs should be somehow different from the current legal regime. Based on the suggested amendments of the Customs Law and the Regulation of Protection for IPRs, China's Customs Administration shall promulgate the Rule on Protection of IPRs in SCSZs, which, at least, includes three general principles:

(i) It shall be applied to SCSZs such as the bonded area, the export processing area, the bonded logistics area, the bonded seaport, and other areas under special Customs surveillance by approval of State Council.

(ii) It shall make it clear that existing customs procedures for the protection of IPRs related to import and export goods shall be applied to inward and outward goods in SCSZs and, of course, to goods released to non-SCSZs as the normal import goods or brought into SCSZs from non-SCSZs as export goods.

(iii) It shall be flexible enough to meet the unique character of SCSZs. For example, it shall provide the right holders with facilities and expedient procedures entry into SCSZs for checking relevant goods suspected of infringing IPRs. The Customs authorities shall provide necessary assistants for judicial investigations, in particular, collection of evidence. Also, the seized goods of infringement shall be destroyed or disposed of, in order to prevent any possible release to non-SCSZs.

C. TO MAKE REGULATIONS FOR THE CHINA (SHANGHAI) PILOT FREE TRADE ZONE, INCLUDING ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS

Institutional innovation is key to establishing the China (Shanghai) PFTZ, which differs from existing SCSZs in its traditional approach in the last two decades to obtain preferential treatment from the Chinese national Government, including seeking exemption from customs duties and fees in SCSZs. The China (Shanghai) PFTZ will have no further exemptions. In terms of exemptions of duties for importation and exportation, the China (Shanghai) PFTZ is no different from existing SCSZs. However, the China (Shanghai) PFTZ will be a test run of different approaches to create a new model of governmental control over foreign trade and investment in SCSZs. It is an attempt to promote trade and investment facilities, to open more services market, and meanwhile, to prevent any possible risks, so as to achieve the goal of test, i.e. the new SCSZ based on a Chinese model in line with international standards of facilities for trade and investment, efficient and expedient surveillance, and legal environment of norms.

The China (Shanghai) PFTZ needs top-level designs of institutional innovation, including new mechanisms to enforce IPRs in accordance with international standards. The Shanghai People's Congress should pass regulations for the China (Shanghai) PFTZ as soon as possible. However, if it continues with the approach of existing local regulations on SCSZs without any provisions regarding protection of IPRs, it will be hard to establish institutional innovation.[32]

D. TO IMPROVE CUSTOMS ENFORCEMENT UNDER THE PROPOSED LEGISLATIONS

Although the primary purpose of this article is to review the existing Chinese legal regime of IPR enforcement in SCSZs in the light of current practices and to make proposals for further national or local legislations accordingly, so as to clarify or improve the existing laws and regulations, it may be appropriate to provide a brief explanation of how the proposed legislations are to be implemented, with particular focus on the means of IPR enforcement.

The Chinese Customs Authorities shall provide IPR holders with special procedures to file applications in cases of infringements of IPRs related to any inward and outward goods in SCSZs. The enforcement of IPRs in SCSZs shall be coordinated with other administrative branches, such as China's State Intellectual Property Office (SIPO) and the local IPR offices, to conduct investigations promptly. It may be necessary to arrest the suspected criminals in the case of counterfeit trademark and pirated copyright goods under China's Criminal Law. The special courts shall be established in SCSZs with jurisdiction over any civil or criminal infringements of IPRs related to inward and outward goods. In fact, a new special court has recently opened in China's (Shanghai) PFTZ to handle cases of IPR violations inside the zone. This indicates that my proposals to improve IPR enforcement in SCSZs are not merely conceptual but also practicable.

VI. CONCLUSION

The current Chinese legal regime of Customs protection of IPRs is, in principle, compliant with TRIPS, which is applied to SCSZs. But due to different legal texts and practices, it is hard to apply this regime. Therefore amendments to current rules and changes to implementation schemes are necessary. Additionally, no cases infringing IPRs suspected by China's Customs officers in SCSZs are available publicly. As the largest exporter of commodities in the world, China must have an effective mechanism to enforce IPRs in SCSZs, especially in the China (Shanghai) PFTZ, so as to meet the great challenges ahead. Accordingly, some legal solutions are suggested, including amendments to China's Customs Law, promulgation of protective rules for IPRs in SCSZs, and the proposed Regulation on the China (Shanghai) PFTZ with special Customs protection of IPRs in expectation to practice sooner or later.

[32] As the final revision of this article was made after the Editorial Board's comments on early May 2014, the proposed Regulation on the China (Shanghai) PFTZ was drafted and opened for public comments (from April 23 to May 8), which includes the provisions of IPR protection (Article 49). The Draft Regulation on China (Shanghai) PFTZ is available at: <http://www.shftz.com.cn/index.aspx#> accessed 7 May 2014.

BIBLIOGRAPHY

Books, article and seminar papers

Clubb B E, *United States Foreign Trade Law*, Little, Brown, 1995

Snyder F, *International Trade and Customs Law of the European Union*, (Butterworth 1998)

Naigen Z, 'Goods in Transit: Enforcement of IP Rights by Customs Officers', *Asia Pacific Law Review* Volume 20, Number 2, 2012

Meier-Ewert W, 'Trademark and Designs' (June 2013) presented at the WIPO-WTO Colloquium for Teacher of Intellectual Property

China's Legislation

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

The Customs Rule on Operation of the Boned and Logistics Area (Issued on 28 November 2005, revised on 15 March 2010)

State Council Guideline to Promote Development of Special Customs Areas ([2012] No. 58), 2 November 2012

The State Council Announcement on the Overall Programme of the China (Shanghai) Pilot Free Trade Zone [2013] No.38

Regulations of the People's Republic of China on Customs Protection of Intellectual Property Rights (Adopted on 5 July 51995, amended on 17 March 2010)

Regulations of the People's Republic of China on Customs Statistics (Enter into force on 1 March 2006)

Implementing Rule of Regulation on Customs Protection of Intellectual Property Rights (Issued on 3 March 2009, entered into force on 1 July 2009)

Regulation of Shanghai Waigaoqiao Bonded Area (Adopted on19 December 1996)

Draft Regulation of China (Shanghai) Pilot Free Trade Zone (Opened for public comments on 23 April 8 May 2014)

Foreign Legislation

Foreign-Trade Zones Act of June 18, 1934, as amended (Pub. L. 397, 73rd Congress, 48 Stat. 998-1003

15 CFR Part 400 - FTZ Regulations
Foreign-Trade Zones Manual, Homeland Security, U.S. Customs and Board Protection Office of Field Operations, Publication #: 0000-0559A, 2011

Council Regulation (EEC) No 2913/92 of 12 October 1992 establishing the Community Customs Code

Council Regulations (EC) 608/2013 of the European Parliament and of the Council of 12 June 2013 concerning customs enforcement of intellectual property rights and repealing Council Regulation [EC] 1383/2003

Treaties, conventions and trade rules

The International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention), entered into force in 1974 and was revised in 1999

Specific Annex Guidelines: D2 Free Zones

5 Recommendation Practice of D2 Free Zones

Agreement on the Trade-Related Aspects of Intellectual Property Rights

Electronic sources

The China's National People's Congress Database of Laws and Regulations website (English) <http://www.npc.gov.cn/englishnpc/Law/2007-12/12/content_1383931.htm>

China Central Government website <http://www.gov.cn/zwgk/2013-09/27/content_2496147.htm>

China (Shanghai) Pilot Free Trade Zone website <http://zbw.sh.gov.cn/WebViewPublic/item_page.aspx?parentId=594&id=598#>

Annual Reports on China Customs Enforcement of IPR in 2008, 2009 and 2010 <http://www1.customs.gov.cn/tabid/49473/Default.aspx>

China Customs Statistics on Trade <http://www.customs.gov.cn/publish/portal0/tab44604/module109000/info414066.htm>

WTO International Trade Statistics <http://www.wto.org/english/news_e/pres10_e/pr598_e.htm>

WIPO Lex: <http://www.wipo.int/wipolex/en/>

US CBP, ICE Release Annual Report on Counterfeit Goods Seized（3 December 2009） <http://www.cbp.gov/archived/xp/cgov/newsroom/news_releases/archives/2009_news_releases/dec2009 /12032009_2.xml.html>

EU Commission：facts and figures (2011) <http://ec.europa.eu/taxation_customs/customs/customs_controls/counterfeit_piracy/statistics/index_en.htm>

US List of FTZs (last update: July 19, 2013) <http://ia.ita.doc.gov/ftzpage/letters/ftzlist-map.html>

3 RE-EXAMINING THE PUBLIC INTEREST COMPONENT OF IPRs WITH SPECIAL REFERENCE TO PLANT BREEDERS' RIGHTS

* Dr Reem Anwar Ahmed Raslan

ABSTRACT

Intellectual Property Rights (IPRs), especially in the field of biotechnology, are currently a major North and South conflict. This article illuminates the theoretical background of IPR protection to better understand this debate. It suggests that IPRs are awarded primarily to achieve total social welfare rather than securing the private rights of an IPR holder. Whenever the grant of an IPR diminishes social welfare the IPR should be curbed.

Keywords: *biotechnology, IPR theory, UPOV, public interest, developing countries*

I. INTRODUCTION

The proliferation of intellectual property rights through international treaties, including TRIPS or bilateral treaties (TRIPS-Plus), has sparked a heated debate between the North and the South. The North eager to see increased enforcement of IPRs, while the South normally sees the tightening of IPRs as a process of further enhancement of the North's dominance in the field of IPRs. Many voices from the South as well as some voices from the North see this process as an uneven process that helps the North get richer while the South gets poorer.

It is beyond the scope of this paper to re-examine the conflict between the North and the South; this paper thus aims to uncover the roots of this debate by focusing on the policies that underlie the grant of IPRs. Revisiting the policies that exist beneath the body of rules governing IPRs will help shed some lights on the North versus South debate. To that end, we probably need to ask why IPRs are granted, for what purpose and how they are enforced, rather than asking whether IPRs are good or bad.

This paper aims to illuminate the issue of the policies underlying IP law by highlighting the issue of the grant of IPRs in the field of biotechnology in the agricultural sector. Intellectual property rights in the field of biotechnology are an excellent example to examine the policies underlying Intellectual Property (IP) Law in a wider context. This is because biotechnology is indeed a field where IP Law conflicts with other legal and ethical norms such as food safety, biodiversity, food security and public health.

Recently, the Global Congress, a group of over 170 policymakers and advocates from approximately 35 countries, who came together at the American University Washington College of Law on 25-27 August 2011, issued the Washington Declaration on Intellectual Property and the Public Interest (the Washington Declaration) on 5 September 2011. The Washington Declaration outlines a series of specific recommendations for action by the international IP public interest community. In the relevant part, the Washington Declaration makes two broad statements:

> International intellectual property policy affects a broad range of interests within society, not just those of rights holders. Thus, intellectual property policy-making should be conducted through mechanisms of transparency and openness that encourage broad public participation. New rules should be made within the existing forums responsible for intellectual property policy, where both developed and developing countries have full representation, and where the texts of and forums for considering proposals are open. All new international intellectual property standards must be subject to democratic checks and balances, including domestic legislative approval and opportunities for judicial review.
>
> Markets alone cannot be relied upon to achieve a just allocation of information goods — that is, one that promotes the full range of human values at stake in intellectual property systems. This is clear, for example, from recent experiences in the areas of public health and education, where intellectual property has complicated progress toward meeting these basic public needs.[1]

* **Dr Reem Anwar Ahmed Raslan** (Egypt) has been a Lecturer (Assistant Professor) of Law at the Faculty of Law, Cairo University since January 2009. Dr Raslan holds a PhD from Marburg University, Germany, magna cum laude, in 2008. Dr Raslan obtained an LL.M. degree from Harvard Law School in 2001. She was a Visiting Researcher at Harvard Law School in 2001/2002 and a Visiting Scholar at the Lauterpacht Research Centre for International Law, University of Cambridge, United Kingdom from May to September 2004. Dr Raslan's most important publications include a book entitled *Antidumping: A Developing Country Perspective,* published by Kluwer Law International in 2009. Dr Raslan has taught in several institutions such as the American University in Cairo and Sultan Qaboos University in the Sultanate of Oman. She has participated in several international conferences including the 10th Wind Energy Conference and Renewable Energy Exhibition (WWEC 2011), Cairo, as well as the American Bar Association (ABA) Workshop on Developing Online Continuing Legal Education Programmes (CLEs) for Egyptian Lawyers (2012). Dr Raslan is a member of the New York Bar since 2002 and is an off Counsel at Raslan Law Office.

[1] The Washington Declaration on Intellectual Property and the Public Interest

This paper aims to examine the tension between IPRs and public policy in the field of biotechnology in the agricultural sector. It argues that IPRs are mainly given to achieve public interest, yet the policy objective of granting IPRs is masked under the excessive enthusiasm of private IPR holders to further strengthen their IPRs.

This paper is divided into five sections: section two outlines the tension between IPRs and food security; section three provides a brief overview of the current international norms to protect biotechnology in the field of agriculture, focusing on policy analysis rather than technical analysis; section four deals with the theoretical foundations justifying the grant of IPRs in the first place; section five discusses the relationship between the protection of IPRs and public interest; and section six is the conclusion.

II. THE TENSION BETWEEN INTELLECTUAL PROPERTY RIGHTS AND FOOD SECURITY

Before addressing the topic, it is useful to define what biotechnology is. Biotechnology is defined by the Convention on Biological Diversity (CBD) as 'any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use.'

In the past, biotechnology was based on traditional natural selection. In the 1970s biotechnology was revolutionized by scientific innovation coupled with the discovery of DNA. These scientific innovations allowed scientists to create 'new' plants, animals and micro-organisms.[2] Modern biotechnology raises a host of socio-economic issues, including biodiversity, protection of the environment, biosafety and food security. The focus of this section is on food security.

Food security can be defined as follows:

> a situation in which all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.[3]

It goes without saying that food security is still a paramount issue in the developing world where malnutrition as well as dependency on food supplies from developed countries are common problems.'

Proponents of biotechnology argue that biotechnology could contribute to food security through producing crops with higher yields, and disease and drought resistance.[4] In order to harness the benefits of biotechnology, the IPRs of producers of biotechnology have to be secured. The two most common forms of protection of biotechnology producers are patents and plant breeders' rights. This article shall focus on plant breeders' rights.

III. INTERNATIONAL LEGAL NORMS FOR THE PROTECTION OF PLANT BREEDERS' RIGHTS

TRIPS Article 27(3)

The protection of new plant varieties is an obligation of all WTO Members. However, Article 27(3) of the TRIPS Agreement gives WTO Members the choice of protecting new plant varieties either through the patent system or through a *sui generis* system or a combination thereof.[5]

The TRIPS Agreement does not give further guidance on what is considered an effective *sui generis* system for the protection of new plant varieties.[6] Although there is no formal obligation to join the Union for Protection of New Plant Varieties (UPOV), an international convention which is dedicated to the protection of innovations in plant breeding, many nations have adopted UPOV as a *sui generis* system to fulfil their TRIPS obligation for the protection of new plant varieties.[7]

Nevertheless, while UPOV is being promoted as the standard system for new plant variety protection, UPOV is seen by many commentators as skewed towards the protection of the plant breeders' rights, since issues other than the intellectual property rights of plant breeders are generally underestimated in the UPOV Convention. Specifically, Article 18 of the UPOV Convention states:

<http://infojustice.org/wp-content/uploads/2011/09/Washington-Declaration-Print.pdf> accessed November 2013.

[2] Debbie Collier and Charles Moitui, 'Africa's Regulatory Approach to Biotechnology in Agriculture: An Opportunity to Seize Socio-Economic Concerns' (17(1) African Journal of International and Comparative Law 29-56, 32. 2009.

[3] The Rome Declaration on Food Security, World Food Summit (1996) <www.fao.org.docrep/003/w3613e/w3613e/w3613e00.htm> accessed November 2013.

It must be noted that there are several definitions of food security, see for instance Michael Blakeney, *Intellectual Property Rights and Food Security, (*CABI2009), 2.

[4] See, for example, UPOV Report on the Impact of Plant Variety Protection (2005), 24.

[5] TRIPS Article 27(3).

[6] World Trade Organization, *A Handbook on the WTO TRIPS Agreement* (Antony Taubman, Hannu Wager and Jayashree Watal (eds), (Cambridge University Press 2012) 104.

[7] ibid.

> The breeder's rights shall be independent of any measures taken by a Contracting Party to regulate within its territory the production, certification and marketing of material of varieties or the importing or exporting of such material. In any case, such measures shall not affect the application the provisions of this Convention (the UPOV Convention).

As Correa elaborates:

> Intellectual Property Rights (IPRs), including on plant varieties, need to be viewed as instruments that a society puts in practice in order to attain certain goals. They do not constitute an end by themselves.

He further points out that the goals of a plant breeders' right regime may include broader objectives such as sustainable development, food security, stimulation of local research, and preservation of traditional knowledge.[8]

However, UPOV contends that public interest issues, including food security and farmers' rights should be separated from the commercial rights of breeders.[9] The UPOV position is not supported by persuasive arguments. The UPOV position, in the author's view, has resulted in tension with other international instruments that aim to achieve wider public policy goals such as the CBD. Thus, many developing countries endeavoured to accommodate broader policy goals into their legislative instruments. For example, the African Union in an effort to create an equitable *sui generis* plant breeders' rights system, while securing the rights of traditional farmers, issued the 'African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources'.[10] The Model Law emphasizes the rights of local communities over their biological resources and traditional knowledge and asserts that **these rights are *a priori* rights which take precedence over rights based on private interests.** [11] **(emphasis added)**

With the current Egyptian IPR Law[12], to give another example, in an effort to strike a balance between private IPR rights and other public interest goals such as farmers' rights and the protection of traditional knowledge, Egypt adopts a *sui generis* system for the protection of plant breeder's rights, yet it imposes disclosure requirements and equitable sharing obligations on plant breeders seeking protection in Egypt.[13]

Furthermore, Article 199 of the Egyptian IPR Law gives the Minister of Agriculture, subject to certain formalities, the right to restrict the rights of a plant breeder in order to achieve public interest in cases of adverse effects on the environment, biodiversity, the Egyptian agricultural sector or plant, animal and human health. Adverse effects on the national economy and social and moral considerations are also grounds for restriction of Breeder's rights.

Nevertheless, the recent years have seen a proliferation of bilateral treaties imposing high international standards of IP protection. For instance, the United States imposed on its trade partners in free trade agreements the obligation to adhere to UPOV 1991, which contains strict provisions for the protection of plant breeders' rights. About 90 countries who agreed free trade agreements with the United States are required to adhere to UPOV 1991.[14] In addition, the European Union has followed the US trail in requiring its trade partners in bilateral treaties to adhere to the highest standards of IP protection, including UPOV 1991. Egypt is subject to such requirements of implementing the 'prevailing international standards

[8] Carlos M Correa, 'Elements for the Protection of Farmers' Plant Varieties', in P C Mavroidis and Thomas Cottier, T 2003, *Intellectual Property: Trade, Competition, and Sustainable Development* (Ann Arbor: University of Michigan Press) eBook Academic Collection (EBSCOhost), EBSCOhost, viewed 16 May 2014 pp. 359-360.

[9] E Opoku Awuku,' Intellectual Property Rights, Biotechnology and Development: African Perspectives' in Daniel Wuger and Thomas Cottier (eds), *Genetic Engineering and the World Trade System*: World Trade Forum (Cambridge University Press 2008) 113.

[10] African Union, 'AU Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources' (Algeria, 2000); available at: <www.grain.org/brl_files/oau-model-law-en.pdf> accessed October 2013.

[11] Emmanuel Opoku Awuku, 'Intellectual Property Rights, Biotechnology and Development: African Perspectives' (n 9) 112.

[12] Law No. 82 of 2002 on the Protection of Intellectual Property Rights (Egyptian IPR Law).

[13] Article 200 of the Egyptian IPR Law stipulates that:

> The Breeder shall disclose the genetic source which he used to develop the new plant variety. In order to confer protection to the Plant Breeder the Breeder must have obtained this source in a legitimate way under the Egyptian Law.
>
> This obligation shall extend to traditional knowledge and know-how accumulated over time by local groups which the Breeder used to develop the new plant variety.

Article 200 further reasserts the disclosure requirements for plant varieties developed using Egyptian traditional resources as it further stipulates:

> [The Breeder] shall respect the Egyptian traditional resources used to develop his (the Breeder's) achievement by disclosing the Egyptian Genetic origin used by the Breeder and by sharing the benefits achieved by him (the Breeder) with the stakeholder.

[14] Blakeney (n3) page 87.

of IP protection' in the European Union/Egypt Association Agreement, including the standards set by UPOV 1991. As a result, Egypt has issued an initial version of a law to comply with Egypt's obligations under the AA Agreement which abolished Article 200 (disclosure and benefit-sharing requirements).[15]

The approach of industrialized countries of imposing high standards of IP protection, especially in the field of plant varieties, towards their developing countries counterparts is controversial. While industrial countries seek to protect the interests of their plant breeders on one hand, developing countries on the other hand experience severe consequences as a result of adhering to high IP standards in the field of plant varieties. Specifically, plant breeders who spent huge investments to develop a new plant variety need to recover the proceeds of their investment. This is because otherwise they would not have the incentive to develop new varieties, especially given the fact that the cost of developing a new variety is substantial, while the cost of reproducing a new plant variety is usually trivial. Breeders need to secure their IPRs before introducing their products into a new market.

Nevertheless, the effect of enhanced breeder rights does not match this textbook notion. Developing countries suffer from the dire consequences of imposing highs standards of plant variety protection. On account of those standards, plant breeders tend to focus on industrial crops rather than staple food crops.[16] Biopiracy has occurred where traditional biomaterial is protected by IP rights with little evidence of any real innovation by the plant breeder.[17] In addition, while innovation in agricultural biotechnology is led by the private sector in industrial countries, in developing countries this task is mainly entrusted to a network of public research centres.[18] Therefore, a UPOV system with emphasis on private IPRs may be ill-adapted to the needs of developing countries. Accordingly, the factual application of the current UPOV-based system leads to the concentration of IPRs in the hands of a few market players, leading to the curtailment of knowledge and technology, rather than enhancing knowledge and transfer of technology. It is clear that IP protection based on the UPOV model may produce adverse effects on the environment, public health and food security to name just a few.

However, the tension between plant variety protection and food security needs to be addressed in a broader context of the tension between IPRs and other public interest goals. This is what this article aims to discuss. This article shall not go into technical details of the UPOV system. However, it shall focus on the policy issues.

IV. WHY INTELLECTUAL PROPERTY RIGHTS?

Before discussing the tension between IPRs and public interest goals, it is useful to look at the main rationales that justify the grant of IPRs in the first place. After briefly outlining the main theories justifying IPRS, we conclude that the dominant theory, which we shall refer to as the 'Utilitarian Theory', justifies the grant of IPRs on public interest grounds of providing an incentive for innovators to produce and share their innovations with the society.

The most significant work on theories underlying IPRs is the work of William Fischer.[19] According to Fischer, there are four major approaches to IPRs, the Utilitarian Theory, the Labour Theory, the Personality Theory and the Social Planning Theory.

Under the 'Utilitarian Theory', the grant of IPRs should be to maximize net social welfare. Accordingly, when designing IP policy, law-makers should strike a balance between exclusive rights granted to IPR holders to stimulate innovation and the right of the public not to curtail access to knowledge.[20]

Under the Labour Theory, 'a person who labours upon resources that are either un-owned or '"held in common" has a natural property right to the fruits of

[15] Article 4 of Decree No. (497) of 2011 amending certain provisions of Book Four (Plant Varieties) of the Law on Protection of Intellectual Property (Law No.82 of 2002).

[16] Genetic Resources Action International (GRAIN), 'Plant Variety Protection to Feed Africa? Rhetoric versus Reality' (October 1999), <http://www.grain.org/article/entries/plant-variety-protection-to-feed-africa-rhetoric-versus-reality> accessed October 2013. See also the Study of the UK Commission on Intellectual Property Rights (CIPR), 'Integrating Intellectual Property Rights and Development Policy', Report of the Commission on Intellectual Property Rights (CIPR), London (2002).

[17] To illustrate, two species of chickpea were misappropriated from the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT). International Centre for Trade and Sustainable Development (ICTSD), 'Bio-Piracy: Australian Case Highlights Debate on Intellectual Property', Bridges Weekly Trade News Digest, Vol. 2, No. 3, 2 February 1998, <http://ictsd.org/i/news/bridgesweekly/91792/> accessed October 2013.

[18] C Fink and C A Primo Braga, 'Technology Transfer in Agricultural Biotechnology: The Developing Country Perspective' in Thomas Cottier and Petros Mavroidis, T 2003, *Intellectual Property: Trade, Competition, and Sustainable Development* (Ann Arbor: University of Michigan Press) eBook Academic Collection (EBSCOhost), EBSCOhost, viewed 16 May 2014 407.

[19] W Fischer, 'Theories of Intellectual Property' <http://cyber.law.harvard.edu/people/tfisher/iptheory.pdf> accessed November 2013.

[20] ibid 2.

his or her efforts – and that the state has a duty to respect and enforce that natural right'.[21]

The third approach views innovations as products in which their creators have expressed their will, a feature of their personality, therefore these innovations must be shielded from appropriation and modifications or by the fact that IPRs create social and economic conditions important for human flourishing.[22]

Finally, the 'Social Planning' approach contends that IPRs should, like any property right in general, serve to achieve a just and attractive culture.[23] However, we see this approach as a strand of the 'Utilitarian Theory'.[24]

It is beyond the scope of this work to provide a thorough discussion of the various theories justifying IPRs. Suffice to say in this context that the most accepted theory justifying IPRs is the 'Utilitarian Theory'. To illustrate, the *Handbook on the WTO TRIPS Agreement* describes scientific innovation as a public good which can be stimulated through the IP system.[25] It states explicitly that '[t[he Intellectual Property (IP) system is a tool of public policy: generally it is intended to promote economic, social and cultural progress by stimulating creative work and technological innovation'.[26] The policy objectives of the UPOV system align with the reasoning for granting IPRs, namely, that Plant Breeder's Rights are needed to promote innovation in the agricultural sector.[27]

The Constitution of the United States justifies the copyright and the patent system as providing an incentive for creative intellectual efforts that will benefit society at large.[28] The United States Supreme Court, when interpreting copyright and patents statutes, takes the view that these statutes are important to stimulate the creation and dissemination of works of intellect.[29]

Thus, we shall focus on the mainstream justification of IPRs, namely the 'Utilitarian Theory'. Specifically, the next section argues that the public interest component of the 'Utilitarian Theory' is underestimated. The balance is skewed in favour of private IPRs holders.

V. INTELLECTUAL PROPERTY RIGHTS AND PUBLIC INTEREST

This section argues that IPRs are in general legal monopolies granted to achieve public interest. The mainstream policy objective underlying IP policy goals is stimulating innovation through the IP system to achieve the net social welfare of a given society. Indeed, one can argue that stimulating innovation is a public interest goal. May and Sell stress the fact that the protection of IPRs has always been a form of public policy, an intervention in the markets to transform their functioning.[30]

Nevertheless, it must be recognized that the IP system, including the UPOV system, does not always foster innovation as claimed. Merges in his book *Justifying Intellectual Property* has stated that law and economic scholars have never established an efficiency-based (or utilitarian) justification for IP protection.[31] He further states that: 'There is no rock-solid proof that overall social welfare would decline if IP protection were suddenly removed.'[32] Merges refers to a study conducted by the well-known economist, Fritz Machlup, for the US Senate, where Machlup concluded that it is not clear that we would estabish IPRs if we started from scratch today, but it would be unwise to get rid of them. Furthermore, Merges admitted he could not jusitify IPRs based on effeciency.[33]

Another important point that may underestimate the theortical jusitification of the current IP system can be found in Robert Nozick's 'Anarchy, State, and Utopia,' which, after endorsing Locke's Labour

[21] ibid 4.
[22] ibid 6.
[23] ibid.
[24] Lemley groups IP Policies into 'ex-ante' policies, in the case of the utilitarian/public goods justification, and 'ex- post' policies in the case of the romantic/private justifications. Lemley views the ex-post justifications as anti-market. Mark Lemley, 'Ex-Ante versus Ex-Post Justifications of Intellectual Property'(2 February 2011) University Chicago Law Review Vol. 71, 129, UC Berkeley Public Law Research Paper No. 144, available at SSRN: <http://ssrn.com/abstract=494424>.
[25] World Trade Organization, *A Handbook on the WTO TRIPS Agreement* (n6) 3.
[26] ibid 2.
[27] UPOV Report on the Impact of Plant Variety Protection (2005), 24; UPOV official website: <www.upov.org/overview/en/impact.html> accessed November 2013.
[28] Clause 8 of the United States Constitution, known as the Copyright Clause, empowers the United States Congress: 'To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries'.
[29] Fischer (n19).
[30] Christopher May and Susan Sell, 'Forgetting History is Not an Option! Intellectual Property, Public Policy and Economic Development in Context', presented at the Intellectual Property Rights for Business and Society Conference, Birkbeck College, University of London, Friday, 15 September 2006 <www.dime-eu.org/files/active/0/MaySell.pdf> last accessed 5 November 2013; May and Sell further expose the historical origins of IP protection. They claim that IPRs emerged during the early mercantilist period as a means for nation States to unify and increase their power and wealth through the development of manufactures and the establishment of foreign trading monopolies.
[31] R P Merges, 'Justifying Intellectual Property', (Harvard University Press, 2011), <http://ssrn.com/abstract=192456> accessed 6 November 2013.
[32] ibid 6.
[33] ibid.

Theory of Property, discusses Locke's famously ambiguous 'proviso' **– the proposition that a person may legitimately acquire property rights by mixing his labour with resources held 'in common' only if, after the acquisition, 'there is enough and as good left in common for others.'[34] (emphasis added)** Although, the comment is made in the context of the Labour Theory, it is equally applicable to the Utilitarian Theory.[35] The grant of a private property right, including IPRs, must not jeopardize the commons.[36]

On the doctrinal level, the notion that IPRs may not always contribute to innovation and technology transfer is recognized by the International IP system through a host of exceptions to and flexibilities in IPRs. While it is beyond the scope of this paper to go through the whole system of exceptions and flexibilities in the IP system, suffice to mention some of the major exceptions and flexibilities in the current IP system.

To illustrate, theories may be excluded from patentability despite their high innovative value.[37] The formal requirement of lack of industrial step is usually considered as the main hurdle of patenting theories, yet the policy reason behind the ban on patenting theories is that patenting them will reduce the 'commons' available for innovation and as result stifle innovation rather than fostering it.[38]

Another example of fact that private IPRs have to be balanced against the public interest is that the term of protection of many IPRs, such as patents and copyright, is limited. The limitation of the term of protection is provided so as to prevent the perpetual ownership of knowledge. The IP system is rife with other examples of limitation of IPRs to achieve public interest, such as the fair use doctrine and compulsory licences.

Indeed, the notion that private rights may be constrained to achieve public interest is widely accepted with respect to classic property rights. Particularly in civil law countries, the doctrine of abuse of right[39] and the rights of servitudes are clear examples. By way of illustration, the Egyptian legislator in certain cases provides for the restriction of a private right not only to achieve a public interest, but also to achieve a superior private interest by curtailing the private right e.g. the right to have access to water to irrigate agricultural land. Sanhouri, the prominent Egyptian jurist, despite acknowledging private property rights, argues that property rights have a social function and that private property rights can be restricted under certain conditions to achieve public interest or even a superior private interest.[40] Sanhouri further contends this is because of social solidarity. A private property owner is a member of the society who shares rights and obligations within his society. A private property owner has acquired his private property right not solely due to his labour, the society has also given him the resources to acquire his property.[41] The contribution of the society to acquiring an IPR, especially in the field of biotechnology, is clear.

Anti-trust rules that prohibit certain behaviour of dominant firms, even if, in some cases, no clear fault can be attributed to them, when their behaviour affects the functioning of the market is also another example of this notion. In *United States v. Aluminum Co. of America* the Court declared that 'It is possible, **because of its direct social or moral effects (emphasis added)**, to prefer a system of small producers, each dependent for his success for his own skill and character, to one in which the great mass of those engaged must accept the direction of a few'.[42] This case can be read to entail that superior

[34] John Locke, *Two Treatises of Government* (P. Laslett, ed., Cambridge: Cambridge University Press, 1970), *Second Treatise*, Sec. 27.

[35] A practical example of IPRs halting innovation instead of fostering it is the example of the development of the steam-driven engines industry where the grant of patent protection to James Watt, who refused to license his invention, halted the spread of engine steam technology for about a generation. May and Sell (n28) 8.

[36] It is worth mentioning that Sanhouri, the prominent Egyptian jurist and the godfather of most of the modern Egyptian and Arab laws, based on a decision of the French Court of Cassation, does not consider IPRs as property rights since property rights are perpetual in nature while IPRs are time-limited exclusive rights. Abd Al Rzaak al Sanhouri , *Al Waseet on Civil Law*, *Property Right* (Ahmed el Maraggy ed., Vol. 8, Dar Al Shrouk 2010) 240.

[37] TRIPS Article 27.3.

[38] As *Funk Brothers* explains, such discoveries 'are part of the storehouse of knowledge of all men … free to all men and reserved exclusively to none'.
Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 130 (1948).

[39] Article 5 of the Egyptian Civil Law provides that:

The use of a right is considered illegitimate in the following cases:

(a) If the right was only used to inflict a damage on third parties;

(b) if the interests sought to be achieved by the right holder are of little significance compared with the damage inflicted on third parties;

(c) if the interests sought to be achieved by the right holder are illegitimate.

[40] Sanhouri (n36) 479-497.

[41] ibid.

[42] In *United States v. Aluminum Co. of America* the Court declared that:

> It is possible, because of its direct social or moral effects, to prefer a system of small producers, each dependent for his success for his own skill and character, to one in which the great mass of those engaged must accept the direction of a few.

private interests may be preferred over a competing private interest to achieve social welfare.

The fact that private property rights are constrained when they conflict with the interests of the society entails that private property rights, including IPRs, should be subordinate to the public interest of achieving total social welfare. Turning to UPOV, if transparent empirical studies show that UPOV rules and enforcement are skewed towards the protection of private plant breeder's rights, without adequate regard to other public interest goals such as biodiversity, biosafety and food security, then the current UPOV system needs to reformed to the extent it conflicts with the public interest.

Another point that merits consideration when discussing the public policy goal of IPRs is that innovation is a result of the accumulation of knowledge. According to Merges, citing Rawl, 'much individual action is the result of pervasive social influence, so that society too has a legitimate interest—but not a coequal right—in the results of individual initiative'.[43] This point is clearly applicable to plant variety protection. Many innovations in plant biotechnology are based on traditional knowledge. Traditional knowledge in this field has been accumulated by farmers through generations. Yet those farmers who shared the innovation process are severely restricted through the UPOV system from sharing the fruits of their labour. This issue is further complicated by the insistence on treating UPOV and other public interest goals such as food security as separate tables. Intellectual property rights, including Plant Breeders' Rights, are granted to promote the public interest goal of innovation, thus the grant of these rights must be weighed against other public policy goals such as farmers' rights and food security to achieve a net social welfare gain.

Finally, we turn to yet another side of the story, the development component. The debate on IPRs and public interest must be addressed through a developmental context. Many authors argue that 'one size does not fit all' in the field of IPRs. Optimal IP policy for an industrialized country is not necessarily suitable for a developing country.[44] Finding the right balance between conflicting interests is likely to be more productive than pressuring developing countries to accept IP norms that may not suit their developmental needs.

United States v. Aluminum Co. of America, 148 F.2d416 (2d Cir.1945).

[43] Merges (n31) 19.

[44] May and Sell (n30).

VI. CONCLUSION

Intellectual property rights, including Plant Breeders' Rights, are granted to promote innovation. If rigorous protection of IPRs stifles innovation rather than promoting it, then IPR doctrine needs to be readdressed. Sound empirical studies are needed to know the effect of a certain IPR in a given market. Currently, studies on both sides are not very reliable. If resources of farmers in developing countries are demolished they may not be able to afford IPRs from industrial countries at a given point of time. It is suggested that IPR creators need to be adequately rewarded, although a more coherent theoretical basis for IPR protection needs to be developed, but let us not forget why IPRs were created in the first place: IPRs are not themselves an end; they are given to promote innovation. If they stifle innovation, then the boundaries of IPRs need to be redrawn.

BIBILOGRAPHY

African Union, 'AU Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources' (Algeria, 2000); available at: <www.grain.org/brl_files/oau-model-law-en.pdf> accessed October 2013

Al Sanhouri A , *Al Waseet on Civil Law*, *Property Right* (Ahmed el Maraggy ed., Vol. 8, Dar Al Shrouk 2010)

Awuku E O, 'Intellectual Property Rights, Biotechnology and Development: African Perspectives' in Daniel Wuger and Thomas Cottier (eds)., *Genetic Engineering and the World Trade System*: World Trade Forum (Cambridge University Press 2008)

Blakeney M, *Intellectual Property Rights and Food Security*, (CABI2009)

Collier D and Moitui C, 'Africa's Regulatory Approach to Biotechnology in Agriculture: An Opportunity to Seize Socio-Economic Concerns, (2009), 17(1) African Journal of International and Comparative Law 29-56

Correa M C, 'Elements for the Protection of Farmers' Plant Varieties, in Mavroidis, P and Cottier, T 2003, *Intellectual Property: Trade, Competition, and Sustainable Development* (Ann Arbor: University of Michigan Press) eBook Academic Collection (EBSCOhost), EBSCOhost, viewed 16 May 2014

Fink C and Braga A P, 'Technology Transfer in Agricultural Biotechnology: The Developing Country Perspective' in Mavroidis P and Cottier T, T 2003, *Intellectual Property: Trade, Competition and*

Sustainable Development (Ann Arbor: University of Michigan Press) eBook Academic Collection (EBSCOhost), EBSCOhost, viewed 16 May 2014

Fischer W, 'Theories of Intellectual Property' at: <http://cyber.law.harvard.edu/people/tfisher/iptheory.pdf> accessed November 2013

Genetic Resources Action International (GRAIN), 'Plant Variety Protection to Feed Africa? Rhetoric versus Reality' (October 1999) <http://www.grain.org/article/entries/plant-variety-protection-to-feed-africa-rhetoric-versus-reality> accessed October 2013.

International Centre for Trade and Sustainable Devleopment (ICTSD), 'Biopiracy: Australian Case Highlights Debate on Intellectual Property', Bridges Weekly Trade News Digest, Vol. 2, No. 3, 2 February 1998, <http://ictsd.org/i/news/bridgesweekly/91792/> accessed October 2013

Lemley M, 'Ex Ante Versus Ex-Post Justifications of Intellectual Property' (2 February 2011). University Chicago Law Review, Vol. 71, 129, UC Berkeley Public Law Research Paper No. 144, available at: SSRN <http://ssrn.com/abstract=494424>

John Locke, *Two Treatises of Government* (P Laslett, ed., Cambridge: Cambridge University Press, 1970), *Second Treatise*, Sec. 27

May C and Sell S, 'Forgetting History is Not an Option! Intellectual Property, Public Policy and Economic Development in Context', Presented at Intellectual Property Rights for Business and Society Conference, Birkbeck College, University of London, Friday 15 September 2006 <http://www.dime-eu.org/files/active/0/MaySell.pdf accessed November 2013

Merges RP, 'Justifying Intellectual Property', (Harvard University Press, 2011), <http://ssrn.com/abstract=192456> accessed 6 November 2013

The Rome Declaration on Food Security, World Food Summit (1996) http://www.fao.org/docrep/003/w3613e/w3613e00.HTM> accessed November 2013.

The Study of the UK Commission on Intellectual Property Rights (CIPR), 'Integrating Intellectual Property Rights and Development Policy', Report of the Commission on Intellectual Property Rights (CIPR), London (2002)

UPOV Report on the Impact of Plant Variety Protection (2005)

The Washington Declaration on Intellectual Property and the Public Interest at <http://infojustice.org/wp-content/uploads/2011/09/Washington-Declaration-Print.pdf> accessed November 2013

World Trade Organization, *A Handbook on the WTO TRIPS Agreement* (Antony Taubman, Hannu Wager and Jayashree Watal (eds) (Cambridge University Press 2012)

Cases

Funk Bros. Seed Co. v Kalo Inoculant Co., 333 U.S. 127, 130 (1948)

United States v Aluminum Co. of America, 148 F.2d416(2d Cir.1945)

4 JUSTIFICATIONS FOR CLAIMING INTELLECTUAL PROPERTY PROTECTION IN TRADITIONAL HERBAL MEDICINE AND BIODIVERSITY CONSERVATION: PROSPECTS AND CHALLENGES

*Kahsay Debesu Gebray

ABSTRACT

The importance of intellectual property is substantially justified based on Lockian natural rights theory, personality-based theory and utilitarian/incentive theory in the contemporary world. The natural right and personality-based theories justify intellectual property rights (IPRs) in one's' own invention/innovation on morality-based arguments. It is natural for people to own what they have produced using their bodies and minds and the results/products are the reflection of the internal personalities of such people. This justification can be applied the same way for those who have invested their labour and mind in traditional knowledge (TK), including traditional medicinal knowledge (TMK). On the other hand, utilitarian theory justifies intellectual property (IP) protection on economic bases as an incentive to encourage investment in inventions/innovations having high public utility and subsequent disclosure of them. Proponents of IP protection in TMK and biodiversity argue that indigenous people and local communities (LCs) have acquired TMK as a result of long-lived investment of their scarce resources in terms of time and efforts. Biodiversity is also conserved by these people due to the experience they have developed through time. This biodiversity and related TMK have proved to have high public utility for the vast majority of the developing world and even significant populations in the developed world, with regards to medicinal, socio-economic and cultural elements of society. Hence, as researchers assert, this justifies IP protection in biodiversity conservation and related TMK. However, are the indigenous people and LCs in practice making use of IPRs? Is the current IP regime useful and suitable to accommodate IP protection in biodiversity and TMK? What are the challenges and prospects if any? This paper seeks to analyse these issues in some detail.

Keywords: *traditional medicinal knowledge, biodiversity, indigenous people, local communities, justifications for IP protection*

I. INTRODUCTION

The justifications for claiming IPRs in TMK and related plant biodiversity are not far removed from the justification for IPR claims in industrial knowledge of Western societies. The morality-based arguments from civil law systems and economic-based arguments from common law jurisdictions seem to have the same application in IP protection of biodiversity and related TMK.

Theories justifying IPRs to enhance development are rooted in the Western scientific knowledge system. Relatedly, there is a claim that TK/TMK does not fit the Western knowledge system and hence does not deserve IP protection. On the other hand, there are proponents of IP protection in TK/TMK and biodiversity. They argue that the same philosophies justifying IP protection in contemporary IP regimes are applicable to TMK and biodiversity.

Hence, it is imperative to examine the relevance of such justifications in TMK and biological diversity conservation. There are three main theories justifying strong IP protection of innovative knowledge/information. These are the Lockean theory; the personality-based theory; and the consequentiality/incentive-oriented theory.[1] Accordingly, section II deals with the Lockean natural rights theory. Section III addresses personality-based justification, while section IV discusses the utilitarian/incentive-based theory. Section V discusses challenges to IP protection for TMK and biodiversity. Finally, the paper comes to its end with conclusions.

II. THE LOCKEAN NATURAL RIGHTS-BASED THEORY

The first theory is based on John Locke's natural right conception, which asserts that 'a person owns her body and hence she owns what it does, namely, its labour. A person's labour and its product are inseparable, and so ownership of one can be secured only by owning the other.'[2] According to Hettinger, Locke believes that objects have negligible human

* **Mr Kahsay Debesu Gebray** (Ethiopia) is Assistant Professor of Law at Mekelle University School of Law, Ethiopia. He holds a Masters degree (LL.M) (Hons.) in Law and Development from the University of Warwick, United Kingdom (2011); the focus of his study and dissertation was on intellectual property protection of traditional knowledge. His gained his Bachelors of Law (LL.B) (Hons) from Mekelle University (2005) Ethiopia; he also holds an advanced diploma from Mekelle University (2000). Currently he is working at Mekelle University, Ethiopia, as an instructor and researcher in intellectual property and other business- related areas. He teaches intellectual property, law of contracts, land and development, legislative drafting, international investment law, and law of evidence. The focus of his research focus is on property law, both corporeal property and intellectual property, as well as on areas of contract law. In addition, he has been acting director of the Human Rights Centre at Mekelle University since 2011. Previously, he was acting supervising attorney in the Legal Aid Centre (2007-2009) and practical attachment coordinator (2006-2008) at Mekelle University; he has also served as Legal Advocate of the Ethiopian Telecommunication Corporation (2000-2002).

[1] S V Shiffrin, 'Intellectual Property', in R Goodin, P Philip and T Pogge (eds.) *A Companion to Contemporary Political Philosophy* (Blackwell 2007).

[2] E C Hettinger 'Justifying Intellectual Property' (1989), 18(1) Philosophy and Public Affairs, 31-52 at page 37: <http://www.jstor.org/stable/2265190> accessed 19 November 2009.

value until laboured and 99 per cent of such humanization of natural objects emanate from labour which is intrinsic to one's body. It follows, then, that creators of IP, and thereby owners of IPRs, could exclude others as a natural right.[3]

However, Locke's natural right-based theory is challenged by a notion that inventors do not create products from a vacuum; rather, they use pre-existing societal/traditional knowledge as the base and develop upon it.[4]

The natural right to one's own product of labour, in favour of which Locke has argued logically, cannot have lesser application in TMK and biodiversity conservation. However, Locke, in opposition to his advocacy of appealing for property right over laboured natural objects in industrial inventions, has rejected the right of indigenous peoples over the land and natural resources upon which they rely for living. Locke argued that aboriginal people, whose livelihood is based on hunting and gathering instead of an established system of property, do not have a property right over the land, but only on the 'fish they catch and the barriers they pick'. In contrast, Europeans, who have a well-established political society and legal system of market-oriented property, had full right over the land they exploit.[5]

However, if the Lockean concept of labour as a value generating factor is the base for claiming property rights, indigenous people should have the right of control over their medicinal knowledge and biodiversity they have conserved using traditional ecological knowledge evolved over a long period of time.

In fact, according to Martin and Vermeylen, evidence in literatures indicates that claims for the rights of indigenous people had been in place in the early 15th and and 16th centuries. Contrary to Locke's approach to indigenous peoples, Vitoria and Las Casas during the Spanish colonization of the Americas argued that Indian natives should have right over their natural recourses based on universality of human rights.[6]

In the current global order, an issue of indigenous peoples' IPRs over TMK and biodiversity conservation has attracted attention both from right-based and utilitarian perspectives. Let us deal first with the right-based perspective and then deal with the latter under section IV.

In the 1990s, many indigenous peoples organized by NGOs started global movements for the respect of their rights. The Earth Charter Conference held in Kari-Oca, Brazil in 1992[7], the international conferences held in 1993 in New Zealand, which resulted in the Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples[8], and the Voice of Earth Congress held in the same year in Amsterdam calling upon States and all concerned agencies to develop common policies in consultation with indigenous peoples on how to protect and compensate indigenous intellectual, cultural and scientific properties are some examples.[9] All these international forums strongly declared that LCs and indigenous peoples have an inherent right to self-determination and an inalienable right to their lands and territories, traditional knowledge and biodiversity.[10] For instance, the Kari-Oca conference participants representing all indigenous peoples claimed IPRs for TK and biodiversity stated:

> As creators and carriers of civilizations which have given and continue to share knowledge, experience, and values with humanity, we require that our right to intellectual and cultural properties be guaranteed and that the mechanism for each implementation be in favour of our peoples and studied in depth and implemented. This respect must include the right over genetic resources, gene

[3] ibid, page 35.
[4] ibid, page 38.
[5] G Martin and S Vermeylen 'Intellectual Property, Indigenous Knowledge, and Biodiversity' (2005) 16(3) Capitalism Nature Socialism, 27—48 at page 35. <http://dx.doi.org/10.1080/10455750500208748> accessed 18 October 2010.
[6] ibid, page 36.
[7] 'Kari-Oca Declaration and the Indigenous Peoples' Earth Charter' (1992), The World Conference of Indigenous Peoples on Territory, Environment and Development, (preamble), 25–30 May 1992, Kari-Oca, Brazil. (1992) <http://www.idrc.ca/imfn/ev-30141-201-1-DO TOPIC.html> accessed 26 November 2010.
[8] 'The Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples (1993), First International Conference on the Cultural and Intellectual Property Rights of Indigenous Peoples,' (introduction part), 12–18 June 1993, Whakatane, New Zealand (1993) <http://www.idrc.ca/imfn/ev-30143-201-1-DO TOPIC.html> accessed 26 November 2010.
[9] 'Recommendations from the Voices of the Earth Congress (1993), The Congress entitled 'Voices of the Earth: Indigenous Peoples, New Partners, the Right to Self-Determination in Practice' (1993) held from 10–11 November 1993 in Amsterdam, Netherlands [see political rights section at paragraphs 1 and 5 and Cultural, Scientific, and Intellectual Property section at paragraph 1] <http://www.idrc.ca/imfn/ev-30141-201-1-DO TOPIC.html> accessed 26 November 2010.
[10] Kari-Oca Declaration, supra note 7, at paragraph 58 condemning deforestation for commercialization, Mataatua Declaration, supra note 8 [at paragraph 1.1 calling upon indigenous people to define their intellectual and cultural properties, and at paragraphs 2.3–25 pressurize states and the international community to recognize and accept indigenous intellectual and cultural rights and develop in full cooperation with indigenous people appropriate IPRs and cultural regimes compatible with TK.]

banks, biotechnology, and knowledge of biodiversity programmes.[11]

All these and other persistent movements on the rights of indigenous peoples pressurized the adoption of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007.[12]

The preamble of the UNDRIP asserts that indigenous peoples have been victimized by the historical injustice of colonial dispossession of their land and natural resources, while all people can contribute to the diversity and richness of civilization for common benefits.[13] In assertion of the justification of indigenous peoples' claim for IPR protection for traditional herbal medicine and conservation of biodiversity, from the rights-based approach, Article 24 of the declaration clearly provids that 'indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals'.

The argument in that line may hold that the right to use, practice and conserve does not mean that the right holders can exclude others from exercising the same right over the same knowledge and resources.

However, in this regard, Article 31(1) of the Declaration clearly provides that indigenous peoples have the right to maintain, control, protect and develop their TK, including knowledge of genetic resources, medicine and properties of fauna and flora. They have also the right to develop and maintain IP on such TK among other things.[14]

From this assertion, we can undoubtedly observe that indigenous peoples have the right to protect, among other things, their TMK and resources biodiversity through IPRs. In fact, the UNDRIP is a declaration and it has only an effect of aspiration; it is not a binding instrument except to build moral obligation towards generating consensus on the rights. In addition, some influential countries, including the United States, have voted against its adoption.[15] Hence, the realization of rights of indigenous peoples, including their IPRs for TK/TMK and biodiversity, becomes doubtful. However, this cannot weaken at a theoretical level the right-based justification to claim IPRs for TMK and the biodiversity LCs and indigenous peoples conserved through their ever evolving traditional ecological knowledge.[16]

III. PERSONALITY-BASED THEORY

The personality-based theory argues that intellectual works are the reflection of personality and the identity of their author/inventor. Hence, people have moral rights to control their intellectual works in which their culture, values and personality are publicly expressed.[17] Of course, the assertion is subject to interrogation as to why initial inventors should preclude others who want to innovate on the same subject independently and express their personality and identity in the same manner.[18]

At this point, the issue which requires discussion is whether an IPR claim for TMK and biodiversity conservation could be justified through this theory. According to Article 1 of ILO Convention No. 169 and other sources[19], what affirms traditional/indigenous people's identity is their firm belief in their own distinct personality and self identification attached to their pre-colonial ancestral culture and values in a distinct territory. Although the Western capitalist IP regime may not recognize it, Solomon notes that indigenous communities have assimilated their identity and livelihood with natural resources in the ecology they adapted.[20] Thus, it is logical that the personality-based theory lays strong justification for IP protection for TMK and biodiversity conservation. This theory seems to overlap sometimes with the right-based theory because when one claims dignity

[11] Kari-Oca Declaration, supra note 7 at paragraph 102.
[12] 'United Nations Declaration on the Rights of Indigenous Peoples', (United Nations General Assembly Resolution 61/295 13 September 2007).
[13] ibid [preamble at paragraphs 3 and 5].
[14] ibid Article 31(1).
[15] L J Johnson, Director, ILO Country Office for the Philippines (2010), Message on the Celebration of International Day of World's Indigenous Peoples 10 August 2010: reaffirming the Indigenous Peoples Development Framework under the Indigenous Rights Act (IPRA) Through Convergence. See footnote 2 of the material listing Australia, Canada, New Zealand, and United States as states that voted against the adoption of the UN Declaration on Rights of Indigenous Peoples.
[16] R Pierotti and D Wildcat, (2000) 'Traditional Ecological Knowledge: The Third Alternative (Commentary)', 10(5) Ecological Applications, 1333-1340 at page 1336. (2000) <http://www.jstor.org/stable/2641289> accessed 28 November 2010.
[17] S V Shiffrin, 'Intellectual Property', in Goodin R, Philip P and Pogge T. (eds.) *A Companion to Contemporary Political Philosophy,* (Blackwell) pp. 660 2007).
[18] ibid.
[19] UN Department of Economic and Social Affairs Division for Social Policy and Development Secretariat of the Permanent Forum on Indigenous Issues (2004). The Concept of Indigenous Peoples; Workshop on Data Collection and Disaggregation for Indigenous Peoples*, PFII/2004/WS.1/3*. See also R Jose Martinez Cobo, (Special Rapporteur), (1986) 'Study of the Problem of Discrimination Against Indigenous Populations' *UN Economic and* Social Council: The Commission on Human Rights and Sub-Commission on the Prevention of Discrimination and Protection of Minorities,*(E/CN.4/Sub.2/1986/7/Add.4*, paragraphs 379-382).
[20] Maui Solomon, 'Strengthening Traditional Knowledge Systems and Customary Law', A Paper presented to the United Nations Trade And Development Conference, Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovation and Practices, paragraphs 13-16, 30 October-November 2000, Geneva, Switzerland.

of personality and distinctness, it cannot be separated from rights such as the right to self-determination, the right not to be evicted from traditional territories and natural resources they rely on etc.[21]

Owing to the established rights as discussed above, we can say in general that LCs and indigenous peoples have stronger bases than others to justify their claim for IP protection of TMK with the personality-based-theory.

IV. UTILITARIAN/GOAL-BASED THEORY

The other most prominent theory to justify IPRs, especially in the contemporary knowledge system, is the incentive-based theory, which is alternatively known as the consequentialist, goal-based, or utilitarian theory. Most of the literatures calling for IP protection of inventions/innovations justify their position through the incentive theory as a goal to encourage research and development (R&D) which would ultimately add substantial value in public utility.[22] Proponents of strong IP protection argue that unless IP protection is granted to intellectual works, such works will be freely copied and commercialized by free riders. And this will leave owners of the works, who have made a huge investment on the socially demanded products such as life-saving drugs, unable to earn back their investment. Hence, private producers could not have motives to invest in R&D of inventive/innovative works having high social utility.[23]

In fact, this argument too is not free from criticism. Some totally deny economic benefits as an incentive to encourage R&D in innovative works, while others opt for alternative incentive modalities, instead of granting an exclusionary monopoly right for a long period of time.[24] However, due to time and space limitation, this paper will not address these criticisms.

The issue that deserves discussion in respect to TMK and biodiversity is whether the incentive based/goal-based theory justifies IPR protection in TMK and biodiversity conservation or not.

In relation to this issue, Schroeder and Pogge ask whether it is fair for serfs not to be paid compensation for their labour and to be starved while working for their lords and producing.[25] The authors have also presented that fairness in transaction is more founded on the notion of justice-in-exchange.[26] According to justice-in-exchange, one has to pay in return as equivalent as to what one has received. In a similar stance, George and Vermeylen state:

> Indigenous peoples with their knowledge about nature's resources are recognized as important custodians of the planet's biological resources. Thus, following the utilitarian way of thinking, indigenous peoples should be given incentives to share their TMK and preserve biodiversity.[27]

As various studies provide, biodiversity and related TMK are making a vital contribution in a manner to benefit the whole world as sources for scientific knowledge and a consumable end result for many. Thus, what is the reason to deny IP protection for holders of this important knowledge and resources, while individuals are entitled to IP protection for even very specific industrial knowledge which has not public utility, compared to TMK and biodiversity? Is there any difference between knowledge based itself on indigenous experiences and scientific observations? Is that not the outcome/utility of such knowledge which matters for IP protection?

In this regard, Brush notes that studies in cognitive anthropology and human ecology are important fields in formulating IPR debates in folk knowledge. According to those studies, cognitive anthropology has revealed a historic affinity and structural similarity between non-Western and Western

[21] Kari-Oca Declaration, supra note 7 at paragraphs 33 and 34; see also Articles 3, 14 and 15 of International Labour Organization Convention No. 169, 1989.

[22] UNCTAD and ICTSD (2003) 'Intellectual Property Rights and Sustainable Development', UNCTAD-ICTSD Project on Intellectual Property Rights and Sustainable Development pp. 30-32; see also World Intellectual Property Organization (2004) *WIPO Intellectual Property Handbook: Policy, Law and Use*, WIPO Publication No. 489 (E), (2nd Ed.), Geneva, 164.

[23] Stanley M Besen and Leo J Raskind (1991) 'An Introduction to the Law and Economics of Intellectual Property', 5(1), *The Journal of Economic Perspectives*, 3-27 at page 5, accessed online on 19 November 2009 13:47, available at: <http://www.jstor.org/stable/1942699>. See also S V Shiffrin, supra note 43 at page 661 and E C Hettinger, supra note 44 pp. 47-48.

[24] Bradford S Simon, (2005) 'Intellectual property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law, 20 Berkeley Technology Law Journal, 1613-1684, at pp. 1626-1627, and 1657, accessed online 12 October 2010 13:45, available at <http://www.btlj.org/data/articles/20_04_04.pdf>, see also S V Shiffrin, supra note 1 at page 661, E C Hettinger, supra note 2 at page 41; and A Gosseries (2008) 'How (Un)fair is Intellectual Property?', in A. Gosseries et al. (eds.) *Intellectual Property and Theories of Justice*. Basingstoke [England], Palgrave Macmillan , New York, at page 16.

[25] Doris Schroeder and Thomas Pogge (2009) 'Justice and the Convention on Biological Diversity', Ethics and International Affairs, pp. 267-280 at page 274.

[26] ibid.

[27] George Martin and Saskia Vermeylen, supra note 5 at page 38.

knowledge systems.[28] Moreover, he further argues that specific knowledge based on indigenous experience should be granted the same legal status as specific scientific knowledge, given the structural similarities between the two knowledge systems.[29]

Although the two knowledge systems are similar, because both of them are based on observation, researchers in human ecology established that LC knowledge is more adaptive in nature to respond to every specific environmental problem.[30] Thus, the responsive nature of local knowledge should be rewarded on par with Western knowledge, if not prioritized. In line with this argument, Brush notes:

> Western scientific knowledge is justified by the wide public interest served, then indigenous knowledge is likewise entitled to protection as intellectual property because it is useful in such areas as conserving biological diversity or identifying pharmacologically active plant compounds.[31]

Gupta also states that though local people in the past used to serve as a pool for rich genetic resources, biodiversity conservation cannot be sustained by keeping the owners poor, while those who loot the resources become rich by using them.[32] She further warns that due to lack of appropriate incentives and esteem, current realities show that young generations are not interested in succeeding TMK and there is a clear threat of discontinuity of intergenerational folk knowledge.[33] In the face of an ultimate erosion of TMK, there will be no way to conserve the benefits such knowledge provides;[34] thus, though the tragedy of destruction of biological resources is known to humanity in general, 'plants [will] become weeds.'

Hence, providing due respect and adequate protection of TMK and biodiversity is imperative. However, there are multidimensional challenges to extend IP protection such as patents to TMK and biodiversity. The following section addresses these challenges.

V. CHALLENGES RELATED TO IP PROTECTION OF TRADITIONAL HERBAL MEDICINE AND BIODIVERSITY CONSERVATION

Sections II to IV have sought to address the importance of IP protection in TMK and biodiversity from different theoretical perspectives and justifications. However, the issue here is whether providing the said IP protection to TMK and biodiversity conservation is suitable and possible. The concern of granting IP protection to TMK and biodiversity is not as easy in practice.

To assess the challenges, it is first required to identify potentially applicable types of IPRs in TMK and biodiversity conservation. Thus, from the eight lists of IPR categories in the TRIPS Agreement, this paper will examine patents and undisclosed information as relevant categories.[35]

Trade secret is the most suitable tool to protect TMK because it does not require any complicated criteria if it is proved that the method employed is commercially useful, undisclosed and can be kept secret. Although it is not institutionalized, LCs used to keep their medicinal knowledge undisclosed for centuries.[36] Licensing this information can benefit the owners for an indefinite time if such protection is legally institutionalized.[37] However, it should be noted that there is a possibility that competitors can independently reach the secret through reverse engineering. For communal knowledge such as TMK and biodiversity, it is extremely difficult to keep all knowledge secret. For instance, some community members or collectors may be bribed and there is no means to detect as to who may disclose the information. Hence, patent and patent-like protections such as a petty patent or utility model and plant variety patent could be alternatives to resolve such problems. Patent-like tools are applicable for less complex inventions and require less stringent criteria than conventional patents.[38] However, since they cover a shorter period of protection, in many cases seeking protection

[28] S B Brush, 'Indigenous Knowledge of Biological Resources and Intellectual Property Rights: The Role of Anthropology' (1993) 95(3) *American Anthropologist, New Series*, 653-671, at page 658, accessed online on 18 October 2010 05:18, available at: <http://www.jstor.org/stable/679655>

[29] ibid, 659.

[30] ibid, see also Fikret Berkes, Johan Colding and Carl Folke, 'Rediscovery of Traditional Ecological Knowledge as Adaptive Management' (2000) 10(5) Ecological Applications, pp. 1251-1262 at page 1259.

[31] S B Brush, supra note 28 at page 659.

[32] A K Gupta, (2005), 'WIPO-UNEP Study on the Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge'; WIPO and UN Environmental Programme, at page 39.

[33] ibid, 26.

[34] ibid, 40.

[35] TRIPS Agreement, part two outline.

[36] Krishna Ravi Srinivas 'Traditional Knowledge and Intellectual Property Rights: A Note on Issues, Some Solutions and Some Suggestions'(2008) 3 Asian Journal of WTO and International Health Law and Policy, 81, [end note FN 17].

[37] Gavin Stenton 'Biopiracy within the Pharmaceutical Industry: A Stark Illustration of How Abusive, Manipulative and Perverse the Patenting Process Can Be towards Countries of the South' (2004) 26(1) *European Intellectual Property Review*, 17–26 at page 24.

[38] Darrell A Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (1996) International Development Research Centre, Ottawa, Canada K1G 3H9, at page 62.

through a patent is unusual. Nevertheless, obtaining patents for TMK has become contentious. So, what are the challenges posed in this regard?

A. Challenges Related to the Patentability of Traditional Herbal Medicine and Biodiversity Conservation

The first concern concerning protection of TK, including TMK, is related to the challenge that the existing IP regimes do not support. Conventional IP systems are designed to protect individual-based Western industrial knowledge instead of community-based traditional knowledge.[39] The opponents of patent protection for TMK strongly argue that this type of knowledge does not fit the current patent protection system, because it does not satisfy patentability requirements, especially novelty and inventive-step[40] elements.

Novelty refers to the newness of the invention and it could be either relative or absolute. Most jurisdictions, including the European Union and Japan, use absolute criteria, in which an invention published, described even orally or by any other means in public, or used publicly anywhere before the date of application for patent is considered as prior art.[41] But the United States and China apply a relative novelty standard, which only requires written publication to establish prior art for inventions in their jurisdiction. In addition, inventions in use, patented, or known in the jurisdiction of the concerned country is also prior art.[42]

Traditional medicinal knowledge is perceived as lacking novelty because it has been in use by the community for generations and hence is prior art under the current patent system. However, as Correa rightly argued, from the perspective of relative novelty, it is hard for TK—and TMK—to fail to meet the novelty criteria, because most of the knowledge is not published. Even from an absolute novelty standard, most of TMK has been confined to a local name known only to the community which would claim patent protection.[43] In addition, a certain portion of the knowledge is not even known by the whole members of the community concerned, rather it is limited to the family lineage only. For example, Chinese patent law does not consider the use of TMK as prior art, unless such use is widely known outside of the community concerned.[44]

Thus, precluding TMK from patent protection for lack of novelty is not sound. Rather, the element of inventive step is a more obvious challenge, as in many cases traditional herbal medicine is directly extracted from natural plants without undergoing any complicated inventive process. Here, though the medicinal property found in a plant may be unknown to anyone before and has substantial societal utility, contemporary IP laws exclude it as a simple discovery of a naturally existing product for lack of inventive step.[45] However, Western pharmaceutical companies are obtaining patent protection by making a slight structural change in natural products without materially altering the medicinal use of such products that was identified by local communities.[46]

In this regard, Stenton condemned the situation stating:

> The fact that discoveries are theoretically excluded from patentability is paradoxical in the sense that it licenses the exploitation of developing countries as they are deemed never to have invented anything and legitimizes the gratuitous expatriation of their TK and resources, which are subsequently, in a pharmaceutical context, afforded monopolistic patent protection following minor superficial modifications in Western laboratories.[47]

[39] S Swarna Latha 'Biopiracy and protection of traditional medicine in India', 31(9) European Intellectual Property Review (2009) 465-477 at page 470; see also O A Arihan and M G Özkan 'Traditional Medicine and Intellectual Property Rights', (2007) 36(2) J. Fac. Pharm, Ankara, 135–151 at pp. 139-140. [Accessed online on 26 November 2010], available at: <http://dergiler.ankara.edu.tr/dergiler/24/546/6744.pdf>

[40] Thomas Cottier and Marion Panizzon 'Legal Perspectives on Traditional Knowledge: the Case for Intellectual Property Protection' (2004) 7(2) Journal of International Economic Law 371-399 at pp. 381-382

[41] X Li 'Novelty and Inventive Step: Obstacles to Traditional Knowledge Protection under Patent Regimes: A Case study in China' (2007) 29(4) European Intellectual Property Review 134-139 at pp. 134-135.

[42] ibid, 135.

[43] ibid, see also Carlos M Correa (2002) *Protection and Promotion of Traditional Medicine: Implications for Public Health in Developing Countries*, 86-89 accessed online on 16 June 2010 21:30], available at: <http://apps.who.int/medicinedocs/pdf/s4917e/s4917e.pdf> at pp. 54–55.

[44] X Li Supra note 41, at pp. 135-136.

[45] Murat Kartal, 'Intellectual Property Protection in the Natural Product Drug Discovery, Traditional Herbal Medicine and Herbal Medicinal Products' (2006) 21 *Phytotherapy Research: Phytother. Res,* 113–119 at page 115, accessed online on 24 September 2012 20:03], available at: <www.interscience.wiley.com> DOI: 10.1002/ptr.2036.

[46] Shayana Kadidal, (1993) 'Plants, Poverty, and Pharmaceutical Patents', 103(1), The Yale Law Journal 223-258 at page 238, accessed online on 18 October 2012 04:20, available at <http://www.jstor.org/stable/797080>

[47] Gavin Stenton, supra note 37 at page 20.

Here, opponents of patent protection for TMK have undermined one reality; in most cases, indigenous communities do not discover the medicinal use of natural plants by accident. Instead, they obtain such medicinal use of plants after a long period of observation in the course of their biodiversity conservation and management efforts. Hence, they invest time, energy, and knowledge based on longstanding experience.[48]

It is in the face of this reality that TMK and biodiversity resources have been excluded from patent protection due to the lack of inventive step, while providing undeniable utility to the society. It in turn has opened a gate for biopiracy by Western multinational firms.[49] The point here is whether it is fair to snatch one's property and grant the exclusive rights to others who have never made significant changes on the former's finding except for translation into Western languages. This paper shares Correa's condemnation of Western legal regimes and patent examinations for their failure to consider the nature of TMK and examine patentability only from criteria set only by a Western perspective.[50]

Why has TMK failed to comply with the requirement of patentability? Is it because this type of knowledge is inconvenient to protect, in part because it is so freely exploited? Or is this because the contemporary IP regime does not want to incorporate it as valid knowledge? The latter is perceived as the right reason. Of course, the problem stems from the unfair global order, which has standardized policies and rules, including globalizing IPRs, in a manner to serve only the interest of the transnational capitalist world.[51] This seems a continuation of the colonial imperial dichotomization of Western epistemology and indigenous knowledge, placing the former at the top of the hierarchy and the latter at the bottom.[52]

In contrast, Gupta advocates that indigenous knowledge, which has made an immense contribution to biodiversity conservation and been an information pool of useful features of plants, will not stand long unless due respect and adequate protection, including IP protection[53], are provided soon. Hence, it seems appropriate to devise some form of *sui generis* system. In this regard, examining the experiences of some countries is important.

The Ethiopian legal regime, particularly the Access to Genetic Resources and Community Knowledge, and Community Rights (CR) Law enacted in 2006 constitutes features of access and benefit sharing (ABS), IPRs and CR, provisions compatible with customary laws and human right principles.[54]

In comparison to problems raised in Ethiopia, the legislative process of Peru, Costa Rica and the Philippines in their newly adopted laws have shown remarkable advancements in consulting and participating indigenous and LCs, regardless of the value given in practice to the interests of such groups.[55] Regarding the scope of protection, the Peruvian law addresses only IPR-type collective knowledge, while Costa Rican legislations, which also consider individual rights, provide protection to biodiversity associated with TK only. The Philippines Indigenous Peoples Rights Act (IPRA) 1997 in this regard has broad-based indigenous knowledge (IK) protection systems and practices encompassing both collective and individual right protection.[56]

The Act provides a broad range of protection and ownership, including intellectual rights on ancestral lands, resources, IK products and derivatives thereof.[57] This Act, like the Ethiopian one, also provides full recognition and protection to customary laws, whereas the Peruvian and Costa Rican regimes do not, at least not explicitly. The three regimes agree in requiring PIC for access and utilization of biodiversity and associated TK.[58] Section 34 of the Philippine IPRA explicitly embraced TM and health practices, medicinal plants, animals, and minerals together with related knowledge, as sole properties of cultural communities and indigenous peoples.

Of the three regimes, the Costa Rican is the only one which requires firms or researchers to present a certificate of origin as a requirement to apply for IPRs, while Peruvian law only requires a licence contract as a pre-requisite. The Philippines' IPRA

[48] F Berkes, J Colding and C Folke, supra note 30.
[49] Gavin Stenton, supra note 37 at pp.21-22.
[50] Carlos M Correa, supra note 43 at page 57.
[51] B S Chimni, 'International Institutions Today: An Imperial State in the Making' (2004) 15(1) European Journal of International Law, 1-37 at page 8 accessed online on 23 July 2010 11: 05, available at <http://www.ejil.org/pdfs/15/1/334.pdf>
[52] Atilio A Boron, 'Hegemony and Imperialism in the International System', *New Worldwide Hegemony: Alternatives for Change and Social Movements* at pp 134 and 139 accessed 7 August 2010 9:45, available at: <http://bibliotecavirtual.clacso.org.ar/ar/libros/hegeing/Boron>
[53] A K Gupta, supra note 32 at page 39.
[54] Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation (2006), The Ethiopian Federal Democratic Republic, Federal Negarit Gazeta, Proclamation No. 482/2006.
[55] Graham Dutfield, (2004) 'Developing and Implementing National Systems of Protecting Traditional Knowledge: Experiences in Selected Developing Countries'; in S Twarog and P Kapoor (eds.) *Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,* United Nations, New York and Geneva, at page 150.
[56] ibid.
[57] The Philippines Indigenous Peoples Rights Act (1997), Republic Act No. 8371, Sec. 34.
[58] Graham Dutfield, supra note 55.

does not refer to IPRs at all but only to intellectual rights and a right-based cultural approach of protection.[59]

The Costa Rican and Peruvian systems are *sui generis* types mainly based on biodiversity conservation and ABS. The Costa Rican law also involves community intellectual rights[60], while the Peruvian regime further incorporates right-based protection of collective indigenous knowledge.[61] The Philippines' IPRA has treated TK and related resources from the perspectives of indigenous rights which can be manifested in human rights, including the right to self-determination and customary rules and practices.[62]

We can infer from the experiences of these countries that there are a variety of ways to promote and protect TK/TMK and biodiversity, and that there is no one right way. Thus, various combinations of methods[63] appropriate to protect TMK and bio-resources can be applied.

However, national regimes alone cannot guarantee effective protection of TK and associated biodiversity through *sui generis* methods, unless such arrangements recognize and are enforced from the perspective of international minimum standards.[64]

B. Other Challenges

Challenges that less developed countries have been facing in securing patent protection for TMK and biodiversity conservation is not only limited to patent-intrinsic difficulties—meeting novelty and inventive-step criteria. There are other multidimensional challenges, including but not limited to the cost of obtaining patents and management, identifying actual inventors and treating a community as a legal entity, valuation of community contribution, and public health concerns.

The first point is that the process of patent acquisition is time-consuming and complex. According to Heath and Weidlich, obtaining all evidence to defend the validity of the claim for patents prosecution would be onerous for poor LCs who have no expertise in the area.[65] Studies also show that the cost of patent registration in most countries is between USD 5000 and 23000.[66] It is further established that the cost of legal remedies against possible infringements of the protection is another impediment unaffordable by LCs.[67] Dutfield has correctly asserted that current patent systems are designed to be accessible only to big firms who can afford all these costs. These firms can further abuse rights of those who cannot defend.[68]

Second, opponents of IP protection for TMK and biodiversity allege that the subject is inconvenient for IP protection. They argue that IP is given to individuals who have actually contributed something valuable and not to the community at large. What is more, Euro-centrism does not acknowledge communal innovations.[69] However, this argument does not take into consideration that biodiversity conservation requires active involvement of every member in the community and neglecting some in the benefits will have a destructive effect on the environment and related TMK.

Another challenge is that sometimes the same knowledge and biodiversity resources may be owned by different communities in different territorial boundaries. For instance, Glinus lotoides, Hagenia

[59] ibid.

[60] J A Medaglia Cabrera (2004) 'Access to Genetic Resources, Protection of Traditional Knowledge, and Intellectual Property Rights: The Costa Rican Experience'; in: S Twarog and P Kapoor (eds.) *Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,* United Nations, New York and Geneva, at page 200.

[61] The Peruvian Law Introducing a Protection Regime for the Collective Knowledge of Indigenous Peoples Derived from Biological Resources (2002), Law No. 27811 (published in the Official Journal 'El Peruano', Articles 11 and 12.

[62] Act No. 8371, supra note 126, see sections. 2, 5, 7, 13, 16, 17, 29, and 32-35.

[63] Mpazi Sinjela and Robin Ramcharan, (2005), 'Protecting Traditional Knowledge and Traditional Medicine of Indigenous Peoples through Intellectual Property Rights: Issues, Challenges and Strategies', 12 International Journal on Minority and Group Rights, pp. 1-24, at page 18.

[64] United Nations Conference on Trade and Development (2000), Expert Meeting on System and National Experience for Protecting Traditional Knowledge, Innovations and Practices; TD/B/COM.1/EM.13/L.1, 9 November 2000, at page 7, accessed online on 17 January 2011, available at: <http://www.unctad.org/en/docs/c1em13l1.en.pdf>; see also T Cottier and M Panizzon, supra note 40 at page 386.

[65] C Heath and S Weidlich (2003) 'Intellectual Property: Suitable for Protecting Traditional Medicine?', 1 *Intellectual Property Quarterly*, pp. 69–96 at page 84.

[66] D Milius (2009) 'Justifying Intellectual Property in Traditional Knowledge', 2 Intellectual Property Quarterly, pp. 185-216 at page 205.

[67] ibid, see also K Timmermans and T Hutadjulu, (2000) 'The TRIPS Agreement and Pharmaceuticals', Report of an ASEAN Workshop on the TRIPS Agreement and its Impact on Pharmaceuticals, 2-4 May 2000, Jakarta at page 47; see also G V Overwalle, (2005) 'Protecting and Sharing Biodiversity and Traditional Knowledge: Holder and User Tools', 53 Ecological Economics, 585– 607 at page 594.

[68] Graham Dutfield, 'Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries'; (2000) UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, 30 October–1 November 2000, Geneva, at page 9, accessed online 29 September 2010 9:55, available at: <http://www.unctad.org/trade_env/docs/dutfield.pdf>

[69] J Chen, 'Biodiversity and Biotechnology: A Misunderstood Relation' (2005) Michigan State Law Review, 51, at page 56; see also G V Overwalle, supra note 67.

abyssinica, Millettia ferruginea, and Ruta chalepensis are well known medicinal plants by some local communities in Ethiopia. However, the medicinal value of Glinus lotoides and Hagenia abyssinica are known to other African countries and communities, as well (Glinus lotoides—Egypt and Mali; Hagenia abyssinica—Tanzania and Kenya).[70] This creates difficulties as to who should be entitled to IP protection for such knowledge and resources. It has been further alleged that communities collectively have no legal status by which they can create a relationship with the state when most indigenous communities are neglected by their governments.[71] But this is not sound when a group of people can jointly own IPRs under the contemporary IP regime.[72]

Third, opponents also argue that evaluating the exact contribution of genetic resources is difficult and so the holders should not be compensated for their alleged contribution. For example, local communities may identify one medicinal property of plant X, but a pharmaceutical company (a licensee) may find additional medicinal properties in that plant. For instance, Rosy is a known medicinal plant by a local community in Madagascar with anti-diabetic use; however, Western pharmaceutical firms have used it for treating leukemia. Hence, how Rosy should be valued if the community in Madagascar has to license it becomes unclear.[73]

Fourth, studies show that between 70 and 90 per cent of the population in poor countries rely on TM, mainly due to its affordability.[74] However, there is concern that if traditional herbal medicine and associated biodiversity are protected, poor people may no longer have any access to it. In this regard, Correa argued that patenting TMK and biodiversity would compel consumers to pay the cost of a licence and royalty, which would be out of reach of the poor majority. A further concern is that unless people in less developed countries can commercialize products in which they have comparative advantage, they cannot develop; development requires investment of time and money, and it will not happen without economic compensation and motivation. Gupta shared the concern regarding the fear of public health affordability stating: 'It is also ignored many times that the concept of IP is not inconsistent with community-wide sharing of knowledge for self-use.'[75] Therefore, since IP protection of TMK and biodiversity does not preclude free exchange of such resources for personal use among LCs, the fear related to public health concern is not practical.

VI. CONCLUSION

Traditional herbal medicine is a plant component of TK. It is mainly developed in communities of the global South, whose main focus is on biodiversity resources related to TMK. According to various sources, the majority of the population in developing countries mainly rely on TMK for their health, socio-economic and cultural ends. It is an alternative therapeutic material for developed countries and also an important source for Western pharmaceutical companies in producing chemical drugs, for which they earn billions of dollars. However, the local communities, who are the owners of TMK and stewards of related biodiversity, have neither remained with their resources nor derived benefits from them.

There are three alternate theories which rely on three main justifications to provide IP protection to TMK and biodiversity conservation. These are the Lockean natural right-based theory, the personality-based theory and utilitarian justification. The first two are more justified based on natural rights and human rights on their own labour, including rights to obtain IP protection for community knowledge and resources. On the other hand, the utilitarian theory is justified—as is the contemporary IP regime—as an incentive to indigenous people and LCs for their contributions in conserving biodiversity and sharing the TMK they have acquired through long-lived experiences.

However, the contemporary IP regime has been intentionally designed to exclude TK/TMK from IP protection. Particularly, the patentability criteria of novelty and inventive step are unachievable for LCs in the current context. TMK is argued to lack novelty, because it has been in use by the LCs for generations and hence is prior art. But there are counter-arguments and experiences viewing the use of TMK by indigenous people and LCs that do not amount to prior art, unless such knowledge is published, known, or used out of communities holding such knowledge. The inventive step is far more challenging to establish for LCs seeking patents for TMK based in naturally occurring flora and fauna.

Hence, devising a *sui generis* system suitable for the protection of TK/TMK and biodiversity conservation is imperative. In this regard, this paper assessed the

[70] J McGown, *Out of Africa: Mysteries of Access and Benefit Sharing*, (2006), B Burrows (ed.), The Edmonds Institute, Washington, United States in cooperation with The African Centre for Biosafety, South Africa, at page 7.
[71] S B Brush, supra note 28 at page 664.
[72] G V Overwalle, supra note 67.
[73] S B Brush, supra note 28 at page 665.
[74] World Health Organization (2002), Traditional Medicine Strategy 2002–2005, WHO, Geneva.
[75] A K Gupta, supra note 32 at page 15.

experiences of some countries. National experiences show that the *sui generis* system envisaged should define its scope and be composed of the current IP regime, the new traditional IP (TIP) system, CR and customary laws, and ABS rules to be applied as appropriate. However, these national efforts are required to be supported by international regimes recognizing the proposed *sui generis* system.

BIBLIOGRAPHY

Books and book chapters

Dutfield G, (2004) 'Developing and Implementing National Systems of Protecting Traditional Knowledge: Experiences in Selected Developing Countries'; in *Twarog S and Kapoor P (eds.) Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,* United Nations, New York and Geneva

Gosseries A, (2008) 'How (Un)fair is Intellectual Property?, in A. Gosseries et al. (eds.) *Intellectual Property and Theories of Justice*. Basingstoke [England], Palgrave Macmillan, New York

McGown J, (2006), *Out of Africa: Mysteries of Access and Benefit Sharing*, Burrows B. (ed.), The Edmonds Institute, Washington, United States in cooperation with The African Centre for Biosafety, South Africa

Medaglia, Jorge A. Cabrera (2004) 'Access to Genetic Resources, Protection of Traditional Knowledge, and Intellectual Property Rights: The Costa Rican Experience'; in: Twarog S and Kapoor P (eds.) *Protecting and Promoting Traditional Knowledge: Systems, National Experiences and International Dimensions,* United Nations, New York and Geneva

Posey, D A and Dutfield G, *(*1996*), Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities*, International Development Research Centre Ottawa, Canada K1G 3H9

Shiffrin S V (2007) 'Intellectual Property', in Goodin R, Philip P and Pogge T (eds.) *A Companion to Contemporary Political Philosophy (*Blackwell)

UNCTAD and ICTSD (2003) 'Intellectual Property Rights and Sustainable Development', UNCTAD-ICTSD Project on Intellectual Property Rights and Sustainable Development

World Intellectual Property Organization (2004) *WIPO Intellectual Property Handbook: Policy, Law and Use*, WIPO Publication No. 489 (E), (2nd Ed.), Geneva

Journal articles

Arihan O A and Özkan M G (2007) 'Traditional Medicine and Intellectual Property Rights', *36(2)* J. Fac. Pharm, Ankara, 135-151.[accessed online 26 November 2010], available at: <http://dergiler.ankara.edu.tr/dergiler/24/546/6744.pdf>

Berkes, F, Colding, J, and Folke, C (2000) 'Rediscovery of Traditional Ecological Knowledge as Adaptive Management', 10(5) Ecological Applications, 1251-1262

Besen, S M and Raskind, LJ (1991) 'An Introduction to the Law and Economics of Intellectual Property', 5(1), The Journal of Economic Perspectives, 3-27 [accessed online on 19 November 2009 13:47, available at: <http://www.jstor.org/stable/1942699>

Boron, A A *Hegemony and Imperialism in the International System*, 'New Worldwide Hegemony: Alternatives for Change and Social Movements' (2004) accessed 7 August 2010 9:45], available at: <http://bibliotecavirtual.clacso.org.ar/ar/libros/hegeing/Boron>

Brush, S B 'Indigenous Knowledge of Biological Resources and Intellectual Property Rights: The Role of Anthropology', 95(3) American Anthropologist, New Series (1993) 653-671 accessed online 18 October 2010 05:18], available at: <http://www.jstor.org/stable/679655>

Chen, J 'Biodiversity and Biotechnology: A Misunderstood Relation', (2005) Michigan State Law Review*,* 51.

Chimni, B S, 'International Institutions Today: An Imperial State in the Making', 15(1) (2004) *European Journal of International Law*, 1-37 accessed online 23 July 2010 11: 05], available at: <http://www.ejil.org/pdfs/15/1/334.pdf>

Cottier T and Panizzon M 'Legal Perspectives on Traditional Knowledge: the Case for Intellectual Property Protection' (2004) 7(2*)* Journal of International Economic Law*,* 371-399.

Heath C and Weidlich S 'Intellectual Property: Suitable for Protecting Traditional Medicine?' (2003) Intellectual Property Quarterly pp. 69 – 96.

Hettinger, E C 'Justifying Intellectual Property', 18(1) *Philosophy and Public Affairs*, (1989) 31-52 accessed 19 November 2009 11:29], available at: <http://www.jstor.org/stable/2265190>

Kadidal, S 'Plants, Poverty, and Pharmaceutical Patents', 103(1), (1993) The Yale Law Journal, 223-258 accessed online 18 October 2012 04:20], available at: <http://www.jstor.org/stable/797080>

Kartal, M 'Intellectual Property Protection in the Natural Product Drug Discovery, Traditional Herbal Medicine and Herbal Medicinal Products', (2006) 21 Phytotherapy Research: *Phytother. Res,* 113–119 accessed online 24 Septenber 2012 20:03], available at: <www.interscience.wiley.com>DOI: 10.1002/ptr.2036

Latha S S 'Biopiracy and Protection of Traditional Medicine in India', (2009) 31(9) European Intellectual Property Review, 465-477.

Li X 'Novelty and Inventive Step: Obstacles to Traditional Knowledge Protection under Patent Regimes: a Case Study in China', (2007) 29(4) European Intellectual Property Review, pp. 134-139

Martin G and Vermeylen S, 'Intellectual Property, Indigenous Knowledge, and Biodiversity', 16(3) (2005) Capitalism Nature Socialism, 27—48 accessed online on 18 October 2010 14:35], available at: <http://dx.doi.org/10.1080/10455750500208748>

Milius D 'Justifying Intellectual Property in Traditional Knowledge', (2009) 2 Intellectual Property Quarterly, 185-216.

Overwalle, G V 'Protecting and Sharing Biodiversity and Traditional Knowledge: Holder and User tools', (2005b) 53 Ecological Economics, 585–607

Pierotti, R and Wildcat, D 'Traditional Ecological Knowledge: The Third Alternative (Commentary)', (2000) 10(5) Ecological Applications, 1333-1340 at p. 1336. [Accessed online on 28 November 2010 01:50] available at: <http://www.jstor.org/stable/2641289>

Schroeder D and Pogge T, 'Justice and the Convention on Biological Diversity' (2009) Ethics and International Affairs, pp. 267-280

Simon, B S 'Intellectual property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law', (2005) 20 Berkeley Technology Law Journal, 1613–1684 accessed online 12 October 2010 13:45], available at: http://www.btlj.org/data/articles/20_04_04.pdf>

Sinjela M and Ramcharan R, 'Protecting Traditional Knowledge and Traditional Medicine of Indigenous Peoples through Intellectual Property Rights: Issues, Challenges and Strategies', (2005) 12 International Journal on Minority and Group Rights, 1-24

Srinivas, K R, 'Traditional Knowledge and Intellectual Property Rights: A Note on Issues, Some Solutions and Some Suggestions', (2008) 3 Asian Journal of WTO and International Health Law and Policy, 81

Stenton G, 'Biopiracy within the Pharmaceutical Industry: a Stark Illustration of How Abusive, Manipulative and Perverse the Patenting Process Can Be towards Countries of the South', (2004) 26(1) European Intellectual Property Review 17-26.

Other published references

Correa C M,' Protection and Promotion of Traditional Medicine: Implications for Public Health in Developing Countries' (2002) 86-89 accessed online 16 June 2010 21:30], available at: <http://apps.who.int/medicinedocs/pdf/s4917e/s4917e.pdf>

Dutfield G, 'Developing and Implementing National Systems for Protecting Traditional Knowledge: A Review of Experiences in Selected Developing Countries' (2000) UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, 30 October–1 November 2000, Geneva accessed online 29 September 2010 9:55, available at: <http://www.unctad.org/trade_env/docs/dutfield.pdf>

Gupta A K, 'WIPO-UNEP Study on the Role of Intellectual Property Rights in the Sharing of Benefits Arising from the Use of Biological Resources and Associated Traditional Knowledge' (2005) WIPO and UN Environmental Programme

Jose R Martinez Cobo, (Special Rapporteur), (1986) 'Study of the Problem of Discrimination Against Indigenous Populations' UN Economic and Social Council: Commission on Human Rights and Sub-Commission on the Prevention of Discrimination and Protection of Minorities, (E/CN.4/SUB.2/1986/7/ADD.4)

Kari-Oca Declaration and the Indigenous Peoples' Earth Charter (1992), The World Conference of Indigenous Peoples on Territory, Environment and Development, 25-30-May 1992, Kari-Oca, Brazil accessed online 26 November 2010, available at: <http://www.idrc.ca/imfn/ev-30141-201-1-DO TOPIC.html>

Lawrence Jeff Johnson, Director, ILO Country Office for the Philippines (2010), Message on the Celebration of International Day of World's Indigenous Peoples 10 August 2010: 'Reaffirming the Indigenous Peoples Development Framework under the Indigenous Rights Act (IPRA) through Convergence'.

Recommendations from the Voices of the Earth Congress (1993), The Congress entitled 'Voices of the Earth: Indigenous Peoples, New Partners, the Right to Self-Determination in Practice,' held from 10 -11 November 1993 in Amsterdam, Netherlands accessed online 26 November 2010, available at: <http://www.idrc.ca/imfn/ev-30147-201-1-DO TOPIC.html>

Solomon, Maui (2000) 'Strengthening Traditional Knowledge Systems and Customary Law', A Paper presented to the United Nations Trade And Development Conference, Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovation and Practices, 30 October-November 2000, Geneva, Switzerland

The Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples (1993), First International Conference on the Cultural and Intellectual Property Rights of Indigenous Peoples, 12–18 June 1993, Whakatane, New Zealand accessed online 26 November 2010], available at: <http://www.idrc.ca/imfn/ev-30143-201-1-DO TOPIC.html>

Timmermans K and Hutadjulu T 'The TRIPS Agreement and Pharmaceuticals' (2000) Report of an ASEAN Workshop on the TRIPs Agreement and its Impact on Pharmaceuticals, 2-4 May 2000, Jakarta

UN Department of Economic and Social Affairs Division for Social Policy and Development Secretariat of the Permanent Forum on Indigenous Issues (2004) The Concept of Indigenous Peoples; Workshop on Data Collection and Disaggregation for Indigenous Peoples, PFII/2004/WS.1/3

United Nations Conference on Trade and Development (2000), Expert Meeting on System and National Experience for Protecting Traditional Knowledge, Innovations and Practices; TD/B/COM.1/EM.13/L.1, 9 November 2000; accessed online 17 January 2011, available at: <http://www.unctad.org/en/docs/c1em13l1.en.pdf>

World Health Organization (2002), *Traditional Medicine Strategy 2002–2005* (WHO, Geneva)

National and international legal instruments

Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation (2006), The Ethiopian Federal Democratic Republic, Federal Negarit Gazeta, Proclamation No. 482/2006

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

International Labour Organization 1989, Convention No. 169

The Peruvian Law Introducing a Protection Regime for the Collective Knowledge of Indigenous Peoples Derived from Biological Resources (2002), Law No. 27811 (published in the Official Journal 'El Peruano')

The Philippine Indigenous Peoples Rights Act (1997), Republic Act No. 8371

United Nations Declaration on the Rights of Indigenous Peoples (2007), The United Nations General Assembly Resolution 61/295 on 13 September 2007

5 THE INDIAN FILM INDUSTRY'S BATTLE AGAINST PIRACY: SOME REFLECTIONS

[*]Arpan Banerjee

ABSTRACT

This paper provides a brief introduction to the issue of film piracy in India. The paper discusses film piracy trends and laws governing piracy. The author examines some strategies adopted and proposed to be used, by the Indian film industry to counter piracy. The author argues that the industry must realign its strategies to combat piracy. The author suggests certain alternative measures, such as focusing more on piracy in high-income countries and promoting access to entertainment.

Keywords: *India, copyright, film, piracy*

I. INTRODUCTION

In 1896, the inventors of the cinematograph, Auguste and Louis Lumière, hit upon the idea of demonstrating their remarkable invention in India and Australia, two of Britain's most important colonies at the time. The Lumière Brothers entrusted the task to Marius Sestier, a chemist who had joined their employment. On 7 July 1896, Sestier exhibited a few short films at the Watson Hotel in Bombay, charging the princely sum of one rupee as an admission fee.[1] The films received an enthusiastic reception, and screenings of European and American films would go on to become popular across India. It was at one such screening in Bombay—of a film on Christ—that a revolution would germinate. Dhundiraj Phalke, an artist and photographer seated in the audience, experienced an epiphany, of which he later wrote:[2]

> I was gripped by a strange spell. I bought another ticket, and saw the film again. This time I felt my imagination taking shape on the screen. Could this really happen? Could we, the sons of India, ever be able to see Indian images on the screen? The whole night passed in this mental agony.

Phalke would eventually scrape together funds and direct India's first feature film, *Raja Harishchandra*, in 1913.[3] Not everyone in the country thought highly of the cinema. Mahatma Gandhi, for instance, condemned motion pictures as 'sinful'[4] and a 'sheer waste of time.'[5] Over time, however, the cinema would become an important and respectable part of Indian cultural life. Today, in its centennial year, the Indian film industry has grown to become the world's largest in terms of numbers of films made and tickets sold annually.[6] In terms of revenue, the Indian box office is presently the world's sixth largest.[7]

The phenomenon of film piracy in India is nearly as old as the industry itself. Remarkably, film piracy in India bore an international dimension even in the early years of the cinema. In 1928, the Indian Cinematograph Committee—primarily established to examine issues related to censorship—reported that 'valuable rights' of film exhibitors were being 'infringed by the free introduction of pirated copies of … films by other exhibitors.'[8] Chief amongst the aggrieved was Madan Theatres, which owned most film theatres in India and had acquired copies of films from American producers. Madan Theatres complained that some exhibitors in the United States, after lawfully buying copies of films from producers, had unlawfully sold copies of the same films to Madan Theatres' rivals at cheaper rates.[9] The Committee felt that existing copyright laws were inadequate to tackle this problem. The Committee recommended the institution of a central censorship bureau (in place of local censorship bureaus) where film exhibitors could register their right to screen films. The bureau could deny an exhibitor permission to screen a film if another exhibitor had previously registered the right to screen the same film.[10]

The Committee's recommendations were made at a time when films could only be viewed by the public in theatres, and the medium was tightly controlled by the state. Today, access to new technologies by both pirates and consumers has presented the film industry with challenges that are infinitely more complex. In recent years, the Indian film industry has become markedly assertive about enforcing its intellectual property rights. This paper examines some of the strategies that have been employed by

[*] **Mr Arpan Banerjee** (India) is Assistant Professor and Executive Director, Centre for Intellectual Property Rights Studies, at the Jindal Global Law School, India. Arpan holds a BA and LLB (Hons) degree from the National University of Juridical Sciences, India and an LL.M degree from King's College, University of London.

[1] See Tony Martin-Jones, 'Marius Sestier in India' (*Film History Notes*, 12 June 2011) <http://www.apex.net.au/~tmj/sestier-in-India.htm> accessed 18 September 2013.

[2] Tejaswini Ganti, *Bollywood: A Guidebook to Popular Hindi Cinema* (Routledge 2013) 8.

[3] ibid 8–9.

[4] Gautam Kaul, *Cinema and the Indian Freedom Struggle* (Sterling 1998) 44.

[5] Robin Jeffrey, 'The Mahatma Didn't Like the Movies and Why It Matters: Indian Broadcasting Policy, 1920s–1990s' [2006] 2 Global Media and Communication 204, 211.

[6] UNESCO, *Institute for Statistics, Analysis of the 2010 UIS International Survey on Feature Film Statistics* (2012) 8–10, 17–18. <http://www.uis.unesco.org/FactSheets/Documents/ib8-analysis-cinema-production-2012-en2.pdf> accessed 1 October 2013.

[7] Motion Picture Association of America, *Theatrical Market Statistics* (2012) 5 <http://www.mpaa.org/resources/3037b7a4-58a2-4109-8012-58fca3abdf1b.pdf> accessed 1 October 2013.

[8] Indian Cinematograph Committee, *Report of the Indian Cinematograph Committee* (1928) 85.

[9] ibid pp. 219–20.

[10] ibid 85.

the Indian film industry to counter piracy in the digital age. Part II of the paper will provide an overview of film piracy trends in India, while Part III will provide an overview of the laws governing piracy in India. In Part IV, the author will argue that the industry must realign its strategies to combat piracy.

II. FILM PIRACY TRENDS IN INDIA

Unlike in many developed countries, pirated films in India are mostly consumed through the sale of CDs and DVDs rather than through the Internet.[11] Another distinguishing feature of film piracy in India is that it is closely linked to music piracy, as most popular Indian films are musicals, and pirated albums are usually soundtracks of popular films. Statistics regarding the extent of piracy in India vary. Government estimates suggest that one fifth of all films sold in India are pirated.[12] Industry estimates attribute annual losses worth USD 4 billion due to piracy, coupled with annual job losses of over 500,000.[13] Even if one assumes that the industry estimates are highly exaggerated, and considers the real figures to be three-to-four times less, the extent of piracy would still be significantly high. Indeed, it is a common sight in Indian cities to see vendors sell pirated CDs and DVDs, which can cost as little as USD 1.[14] The brazenness with which Indian pirates operate can be illustrated by the rise of T-Series—one of India's leading entertainment labels. T-Series' founder, Gulshan Kumar, originally accumulated his fortune by selling unlicensed copies of popular Indian film soundtracks in the 1980s and 1990s. Kumar—who was shot dead in mysterious circumstances —refused to enter into a truce with India's leading music companies and chose to defend a lawsuit filed against him, knowing that the Indian legal system was slow and inefficient.[15] Arguably, piracy also enjoys a great degree of social acceptability. For example, when a group of Indian legislators organized a screening of the popular Indian film *Rajneeti*—a new release at the time–they blithely chose to screen a pirated copy of the film.[16] The film's director, Prakash Jha, lamented: 'This social evil has … become a normal phenomenon in everyday life.'[17]

In recent years, the consumption of pirated films through the Internet has increased in India.[18] Presently, only 1 per cent of the Indian population currently has access to broadband Internet, the major causes being unaffordability and an absence of optical fibre cables in many regions.[19] However, although modest when expressed as a percentage, the number of broadband users in India amounts to well over 10 million. There is evidence that much illegal downloading is taking place. For example, 350,000 copies of the popular film *Kaminey* were estimated to have been downloaded from file-sharing websites within a week of the film's release.[20] A number of Indian universities, which offer high-speed Internet connections to students, are hotbeds of illegal downloading. These universities include the campuses of the elite Indian Institute of Technology (IIT), where the author once taught and can claim to have witnessed the phenomenon first hand. Like physical piracy, Internet piracy is also generally viewed as socially acceptable. For example, a report on illegal downloading at IIT's Madras campus reveals that students do not think twice while downloading pirated content, and even quotes a professor who matter-of-factly states that his students use pirated books.[21]

The Indian Government has charted an ambitious plan to increase broadband penetration. The Government aims to provide optical fibre cables and cheaper computers throughout India, targeting 600 million broadband users in 2020.[22] In 2012, the Government took the first step in this direction by launching the Aakash tablet computer, which costs around USD 50 and is aimed at users who cannot afford more expensive computing devices.[23] The Indian film industry has thus expressed concerns

[11] Federation of Indian Chambers of Commerce and Industry and KPMG, *Indian Media and Entertainment Industry Report* (2011) 85.
[12] Committee on Piracy (Ministry of Information and Broadcasting), *Report of the Committee on Piracy* (2010) 11–12 (citing an estimate by the Indian Ministry of Human Resources Development).
[13] Ernst and Young, *The Effects of Counterfeiting and Piracy on India's Entertainment Industry* (2009) 3–4.
[14] See Lawrence Liang and Ravi Sundaram, 'India' in Joe Karganis (ed), *Media Piracy in Emerging Economies* (Social Science Research Council 2011) 339, pp. 349–50.
[15] See Lawrence Liang, 'Copyright, Cultural Production and Open-Content Licensing' (2005)1 Indian Journal of Law and Technology 96, 152-3.
[16] Prithwish Ganguly, '75 Politicians Watch Pirated Rajneeti DVD in Rajasthan' *DNA* (Bombay, 31 May 2010) <http://www.dnaindia.com/entertainment/1390219/report-75-politicians-watch-pirated-rajneeti-dvd-in-rajasthan> accessed 1 October 2013.
[17] ibid.
[18] Liang and Sundaram (n 14) 356–9.
[19] See Dilip Maitra, 'India's Broadband Base Touches 13 Million' *Deccan Herald* (Bangalore, 11 January 2012) <http://www.deccanherald.com/content/218464/indias-broadband-base-touches-13.html> accessed 1 October 2013.
[20] See Patrick Frater, 'Online Piracy in India a Global Problem' (*Hollywood Reporter*, 15 October 2009) http://www.hollywoodreporter.com/news/online-piracy-india-global-problem-92365> accessed 1 October 2013.
[21] See Raymond Joseph, 'Combating Piracy' (*Fifth Estate*, 1 November 2011) <http://t5e.iitm.ac.in/2011/11/combating-piracy> accessed 1 October 2013.
[22] See Ministry of Communications and Information Technology, *A Triad of Policies to Drive A National Agenda for ICTE* 11 (2011).
[23] See Jason Burke, 'Indian Computer Tablet Could Herald an Internet Revolution' *The Guardian* (London, 12 January 2012) <http://www.guardian.co.uk/technology/2012/jan/12/indian-computer-tablet-aakash-internet> accessed 1 November 2013.

that the increase in Internet penetration could lead to greater numbers of illegal downloads.[24]

For many years, the attitude of Indian law-makers towards piracy was blasé. For example, during the 1980s, when heads of Indian music companies complained to the then Finance Minister (and future Prime Minister) VP Singh about Gulshan Kumar's activities, he is alleged to have told them: 'Don't come to me with your hard luck stories. You've no marketing strategies … Gulshan has. And you want me to punish him for his entrepreneurial ability?'[25]

Today, however, law-makers have become far more sensitive to the needs of the film industry. A recent example is the reaction of the government of the state of West Bengal to the closure of Music World, a popular nationwide CD and DVD retail chain. Music World, which was headquartered in West Bengal and operated its flagship store from Calcutta, the state's capital, announced the closure of its operations in June 2013, citing declining sales due to piracy. This resulted in unprecedented protests by artists from the state, demanding stricter laws against piracy.[26] The West Bengal government gave in to these demands and enacted the West Bengal Prohibition of Audio and Video Piracy Ordinance 2013, which made it difficult for pirates to obtain bail and increased the maximum punishment for piracy to seven years' imprisonment.[27] This was a remarkable development because West Bengal's political establishment has historically been left-wing and populist. In Calcutta, unlicensed roadside vendors—many of whom sell pirated CDs and DVDs—number over 300,000 and form an important vote bank, enjoying the patronage of major political parties.[28] Furthermore, West Bengal's film industry has traditionally been dominated by niche, art-house filmmakers more concerned with critical acclaim than commercial revenues. The fact that a state, whose artists and politicians were not the most obvious candidates to rail against piracy suddenly did so, challenges the common notion that piracy is exclusively the concern of large entertainment companies and unabashedly capitalistic politicians who kowtow to them. But to think that piracy in India can be eradicated merely by enacting stringent laws would be naïve. This paper will accordingly argue that piracy in India must be seen as a multifaceted problem to be countered using a range of strategies, from the offensive to the accommodative.

III. LAWS GOVERNING PIRACY IN INDIA

India has signed three major international copyright agreements.[29] India's main copyright statute, the Copyright Act 1957 (Act), has 'borrowed heavily' from and 'adopted many principles and provisions' of United Kingdom law.[30] The Act has been amended six times, most recently in 2012. India ratified the Agreement on Trade- Related Aspects of Intellectual Property Rights (TRIPS) in 1994, and the Agreement came into force in India on 1 January 1995. India's decision to sign the TRIPS Agreement met with fierce political opposition from within the country[31], while the Delhi High Court had to hear a petition seeking to restrain the Indian Government from signing the Agreement.[32] However, the political opposition to the TRIPS Agreement mainly revolved around its patent-related provisions. Similarly, the petition filed before the Delhi High Court—which was dismissed due to the Court's reluctance to intervene in matters of economic policy—was directed towards issues concerning plant-variety protection and seeds, rather than copyright issues.[33]

The TRIPS Agreement's impact on Indian copyright law, while significant, has been less far-reaching when compared to its impact on Indian patent law, as Indian copyright law has largely 'developed independently of global influence.'[34] Moreover, the presence of a strong indigenous film industry in India has meant that copyright reform has been a less contentious issue than patent reform. In some instances, domestic interests have prompted the

[24] Committee on Piracy (n 12) 11.
[25] See 'Life in the Twilight Zone' (*Rediff*, 2 September 1991) <http://www.rediff.com/entertai/sep/02sup.htm> accessed 11 November 2013.
[26] See Shoma A Chatterji, 'Protest Against Piracy: Death Knell for Music?' (*India Together*, 27 July 2013) <http://www.indiatogether.org/2013/jul/eco-piracy.htm> accessed 11 November 2013; 'Bengal Music Industry to Protest Music World Closure' (CNN IBN, 14 June 2013) <http://ibnlive.in.com/news/bengal-music-industry-to-protest-music-world-closure/398825-45-75.html> accessed 11 November 2013.
[27] See 'Law Against Piracy' *The Telegraph* (Calcutta, 28 September 2013) <http://www.telegraphindia.com/1130928/jsp/calcutta/story_17399034.jsp> accessed 11 November 2013.
[28] See 'Hawker Raj is Here to Stay' *The Telegraph* (Calcutta, 4 January 2013) <http://www.telegraphindia.com/1120104/jsp/calcutta/story_14957183.jsp> accessed 11 November 2013.
[29] India signed the Convention for the Protection of Literary and Artistic Works in 1928, the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations in 1961, and the Geneva Phonograms Convention in 1975. India has not ratified the Rome Convention.
[30] P Narayanan, *Law of Copyright and Industrial Designs* (Eastern Law House 2007) pp. 7–9.
[31] See Hardev S Sanotra and Zafar Agha, 'Fighting with Ignorance' *India Today* (Delhi, 15 January 1994) <http://indiatoday.intoday.in/story/with-indian-govt-putting-up-a-weak-defence-political-opposition-gatt-rises-to-new-high/1/292621.html> accessed 11 November 2013.
[32] *Vandana Shiva v. Union of India* [1995] 32 DRJ 447 (Delhi High Court).
[33] ibid [1].
[34] Shubha Ghosh, 'A Roadmap for TRIPS: Copyright and Film in Colonial and Independent India' (2011) Queen Mary Journal of Intellectual Property 146, 162.

Indian Government to amend the Act and include TRIPS-Plus and Berne-Plus standards. For instance, in 1992, the Act was amended to increase the term of protection for authorial works by a further ten years than the Berne standard (which would later become the TRIPS standard). The primary reason for doing so was that the works of the famous Indian writer and composer, Rabindranath Tagore, were on the verge of falling in the public domain.[35] The copyright in Tagore's works vested with a public university in West Bengal, Tagore's home state. The then government of West Bengal—consisting, ironically, of a coalition of communist parties who would later lead the opposition to TRIPS—lobbied to increase the term of protection, overriding opposition from prominent artists in the state.[36] In a more recent example, the 2012 amendment to the Act saw the introduction of various TRIPS-plus standards recognized by the WIPO Internet Treaties, even though India has not signed these treaties.[37] Unsurprisingly, several influential industry associations had made representations before Indian law-makers when the bill was being drafted.[38]

In terms of civil procedure, there are two procedural advantages which plaintiffs in copyright infringement suits enjoy. First, Indian law normally requires a civil suit to be instituted in a court with jurisdiction over (a) the defendant's residence/place of business or (b) the place where the cause of action wholly or partly took place.[39] However, suits for copyright or trademark infringement may additionally be filed in a court which has jurisdiction over the plaintiff's residence/place of business.[40] Courts have noted this to be 'an obvious and significant departure' from civil procedure rules, enacted to spare plaintiffs the inconvenience of having 'to chase after' pirates.[41] Second, a copyright infringement suit is normally required to be filed in a District Court.[42] However, the High Courts in Delhi, Bombay, Madras, and Calcutta—India's four largest cities—can exercise first-instance jurisdiction in civil suits valued above a certain amount.[43] Plaintiffs are normally at liberty to fix a value to their suit, and it is not very common for courts to return intellectual property suits on the ground of being overvalued. Thus, plaintiffs in copyright infringement suits, who are wealthy enough to litigate in High Courts, can effectively approach one of the four major High Courts if they can show either (a) a place of business within the jurisdiction of the Court or (b) that some part of the cause of action arose within the jurisdiction of the Court. This has at least three practical advantages. First, bypassing District Courts saves plaintiffs a step. Second, High Courts are perceived as more efficient, and also more capable of handling commercial disputes than District Courts. Third, litigating in one of the major Indian cities has various logistical advantages.

In almost all intellectual property infringement suits filed by large companies, the preferred forum has been one of the four major High Courts, particularly the Delhi High Court. Each year, the Delhi High Court hears around 500 new intellectual property suits, and disposes of around the same number.[44] In *Microsoft v. Gopal*[45], the Delhi High Court strongly criticised this practice of forum shopping. The Court noted that, in 'almost every' intellectual property dispute, plaintiff companies were approaching the Delhi High Court in the first instance, rather than the relevant District Court.[46] The Court, however, accepted the suit in question, noting that 'judicial discipline' required it to do so.[47] Incredibly, the suit was filed by Microsoft against an alleged pirate based in the city of Bangalore, which is situated nearly 2,000 km from Delhi—more than the distance between London and Rome. This despite the fact that Microsoft has a large presence in Bangalore, and the city's District Court would clearly have been, in the Court's words, the 'most appropriate forum' for filing the suit.[48]

In terms of civil remedies, the Act allows 'all such remedies by way of injunction, damages, accounts *and otherwise as are or may be conferred by law for the infringement of a right*.'[49] Indian courts, in particular the Delhi High Court, have liberally

[35] See Bibek Debroy, Debashis Chakraborty and Arup Guha, 'Copyright Protection and Consumer Welfare: A Case Study of Rabindra Rachanabali' [2005] 6 Global Business Review 55.
[36] Lok Sabha Deb (Copyright (Amendment) Ordinance, 1991), 17 March 1992 (Girdhari Lal Bhargava) <http://parliamentofindia.nic.in/lsdeb/ls10/ses3/2217039203.htm> accessed 11 November 2013.
[37] See Zakir Thomas, 'Overview of Changes to the Indian Copyright Law', [2012] 17 Journal of Intellectual Property Rights 324, 326–7.
[38] See generally, Department-Related Parliamentary Standing Committee on Human Resource Development, *Report on the Copyright (Amendment) Bill, 2010* (No 227, 2010) <http://www.prsindia.org/uploads/media/Copyright%20Act/SCR%20Copyright%20Bill%202010.pdf> accessed 15 November 2013.
[39] Code of Civil Procedure (India) 1908 s 20.
[40] Copyright Act 1957 (India) s 62(2); Trade Marks Act 1999 (India) s 134.
[41] *Smithkline Beecham v Singhi* [2001] PTC 321 (Delhi High Court) [6]; *Caterpillar v. Kailash* [2002] 24 PTC 405 (Delhi High Court) [24].
[42] Copyright Act 1957 (India) s 62(1).
[43] See Law Commission of India, *Delays and Arrears in High Courts and Other Appellate Courts* (Law Com No 79, 1979) [2.1]–[2.5],[15.1]–[15.2] <http://lawcommissionofindia.nic.in/51-100/Report79.pdf> accessed 11 November 2013.
[44] See 'How India's Courts are Coping with the IP Boom' *Managing Intellectual Property* (1 September 2010) (remarks by Kaul J) <http://www.managingip.com/Article/2664957/How-Indias-courts-are-coping-with-the-IPboom.html?ArticleId=2664957&single=true> accessed 11 November 2013.
[45] *Microsoft v. Gopal* [2010] 42 PTC 1 (Delhi High Court).
[46] ibid [17]–[18].
[47] ibid [21].
[48] ibid.
[49] Copyright Act 1957 (India) s 55(1) (emphasis added).

granted Anton Piller orders[50] and John Doe orders[51] in copyright cases. In a significant development, High Courts have, of late, granted John Doe orders in a string of cases concerning online file sharing.[52] These orders have been wide in scope and loaded in favour of the plaintiffs, who have been large media companies. For instance, in one case, the Madras High Court prohibited 15 Internet service providers, along with 'other unknown persons', from, *inter alia*, 'making available … or uploading or downloading' the Tamil film *3 '* in any manner', including through the Internet, USB drives, 'or in any other like manner'.[53] Some Internet service providers have erred on the side of caution and blocked entire file-sharing websites, rather than the specific pages hosting the infringing content.[54]

In terms of criminal penalties, the Act provides for imprisonment for between six months to three years (along with a fine ranging from INR 50,000 to INR 200,000) in cases of intentional infringement or intentional abetment to infringement.[55] The Act provides for enhanced penalties for repeat offenders.[56] The Act also empowers police officials to conduct raids and seize infringing material without a warrant, and without permission from any judicial or administrative authority.[57] In this respect, the Act is more favourable toward rights owners than the Indian Trade Marks Act, which requires police officials to at least seek prior clearance from the Indian Trade Marks office.[58] In recent years, governments in certain states—where the film industry wields considerable political clout—have gone even further and arrested suspected pirates under preventive detention laws, called Goonda Acts.[59] One of the most significant arrests under these laws occurred in February 2013, when police in Madras detained an influential pirate and reportedly seized pirated discs worth INR 140 million.[60] The use of these laws, generally meant for criminals who pose a threat to public order, has been criticized as draconian and in violation of civil liberties.[61]

The foregoing shows that, substantively, Indian law does not pose many concerns for copyright owners. Indeed, copyright owners should consider themselves fortunate to receive certain special privileges. However, the practical enforcement of these laws has always been weak, effectively defeating the purpose of these privileges. This is one of the ostensible reasons why India features in the Priority Watch List of countries with weak intellectual property law systems, in a report prepared by the United States Trade Representative (USTR). The USTR's report has acknowledged that 'India boasts a vibrant domestic creative industry', and has seen 'judicial orders that have strengthened enforcement against pirated movies and music online.'[62] However, it has observed that India needs to 'address its judicial inefficiencies' and 'strengthen criminal enforcement efforts, including by imposing deterrent level sentences and giving intellectual property rights prosecutions greater priority.'[63] It should be mentioned that the USTR's report has been strongly criticised in India, and India's placement in the Priority Watch List has been seen as retribution for India's protecting the interests of its generic pharmaceutical companies in patent-related matters.[64] However, in the context of copyright law, even if the USTR's opinion is guided by the narrow interests of American media companies, the concerns expressed by the Indian film industry have not been much different.[65] These concerns led the Indian Government to establish a High-Level Committee on Piracy (the Committee), dominated by industry representatives. In the next section, the author will examine some of the strategies recommended by the Committee, and argue that

[50] See, for example, *IBM v. Kamal Dev* [1993] Entertainment Law Review E40 (Delhi High Court); *Autodesk v. Shankardass* AIR [2008] Del 167 (Delhi High Court).
[51] See, for example, *Taj Television v. Mandal* [2003] FSR 22 (Delhi High Court).
[52] See Juhi Gupta, 'John Doe Copyright Injunctions in India' [2013] 18 Journal of Intellectual Property Rights 351.
[53] *RK Productions v. BSNL* (Madras High Court, 29 March 2012).
[54] See Javed Anwer, 'Blocking Website in India: Reliance Communications Shows It Is Very Easy' *Times of India* (New Delhi, 24 December 2011) <http://articles.timesofindia.indiatimes.com/2011-12-24/internet/30554592_1_block-websites-reliance-communications-reliance-entertainment> accessed 11 November 2013.
[55] Copyright Act 1957 (India) s 63.
[56] Copyright Act 1957 (India) s 63A.
[57] Copyright Act 1957 (India) s 64.
[58] Trade Marks Act 1999 (India) s 115.
[59] See Liang and Ravi Sundaram (n 14) 348, 387.
[60] 'Piracy Racket Kingpin Held Under Goondas Act After Top Cop's Order' *Times of India* (Madras, 19 February 2013) <http://articles.timesofindia.indiatimes.com/2013-02-19/chennai/37178970_1_vcds-dvds-video-piracy-cell> accessed 11 November 2013.
[61] See Prashant Reddy, 'Video Pirates, Preventive Detention and the Constitution of India' (*Spicy IP*, 28 September 2009) <http://spicyip.com/2009/09/video-pirates-preventive-detention-and.html> accessed 11 Nov 2013.
[62] Office of the United States Trade Representative, *Special 301 Report* (2013) 39 <http://www.ustr.gov/sites/default/files/05012013%202013%20Special%20301%20Report.pdf> accessed 11 November 2013.
[63] ibid.
[64] See Swaraj Paul Barooah, 'USTR's Special 301 Process 2013 – India on Priority Watchlist' (*Spicy IP*, 4 May 2013) <http://spicyip.com/2013/05/ustrs-special-301-process-2013-india-on.html> accessed 11 November 2013; Amiti Sen, 'India Protests against Being Put in US Priority Watch List with Insufficient IP Protection' *Times of India* (New Delhi, 8 May 2012) <http://articles.economictimes.indiatimes.com/2012-05-08/news/31626695_1_ipr-protection-patents-india-protests> accessed 11 November 2013.
[65] 'Music and Video Piracy Up, Cops Blame Lax Law' *Times of India* (Calcutta, 12 July2010) <http://articles.timesofindia.indiatimes.com/2010-07-12/kolkata/28318043_1_piracy-cases-indian-music-industry-imi> accessed 11 November 2013.

these strategies should be reconsidered in favour of certain alternative strategies.

IV. RETHINKING STRATEGIES

The general view expressed by the Indian film industry has been that the solution to curb piracy is to have stricter laws and enforcement measures. In this regard, the Committee recommended three noteworthy measures[66]: (a) that an obligation be placed on theatre owners to bar viewers from bringing camcording devices into theatres; (b) that more states in India apply preventive detention laws against pirates; and (c) that the Government enact 'three-strikes' laws requiring Internet service providers to gradually initiate action against users downloading pirated content. However, arguably, all three recommendations are inadequate or problematic.

With reference to the first recommendation, it will be nearly impossible to diligently implement such a measure in a large country like India. In the age of digital piracy, lax monitoring in even a couple of theatres could lead to pirated prints going viral on the Internet. Moreover, the quality of mobile phone cameras has improved rapidly, and will soon be at par with camcorders. It will be hard for theatres to monitor pirates who bring mobile phones into theatres and discreetly record films. It also needs to be pointed out that, increasingly, pirated copies of films in circulation are not copies of prints recorded in theatres but high-quality copies of master prints leaked even before the film is released, sometimes by employees of film companies themselves.[67]

With reference to the second recommendation, even in the unlikely event that every single state in India applies preventive detention laws to pirates, it will be impossible to expect stringent enforcement of these laws throughout India, especially in smaller towns and villages. Most police forces in Indian states are understaffed and underfunded, and their limited resources surely must be devoted to more pressing law and order problems. If the primary objective of having these laws is simply to carry out a few symbolic arrests and deter other pirates, this objective appears to have failed. In Tami Nadu—one of the first states to implement preventive laws—piracy is still rampant, as most pirates are released within a few days of being arrested via habeas corpus petitions, while such laws have failed to prevent online piracy.[68] Furthermore, there are serious questions regarding the moral and legal propriety of using such draconian laws, which are open to serious misuse, in the first place.

With reference to the third recommendation, the suggestion to adopt a three-strikes model was made to the Committee in a submission by the Motion Picture Association (MPA), the international counterpart of the Motion Pictures Association of America. The Committee's report contains no mention of the feasibility of implementing such a model in India, and no wide-ranging discussions appear to have taken place before the Committee chose to adopt the MPA's views.[69]

Legally, a three-strikes policy would pose challenges related to privacy and civil liberties. A graver problem would be the likelihood of innocent users being disconnected, since most Internet connections are shared connections, often used through cybercafés. From a policy perspective, implementing three-strikes laws could result in Internet service providers passing on costs to consumers, thus hindering the Indian Government's plans to increase Internet penetration. Even from a business perspective, a three-strikes policy might not have long-term benefits for the Indian film industry. It would make sense for the American film industry to lobby for three-strikes laws in India, as their target audience would mostly be confined to wealthy and upper-middle class English-speaking Indians. This segment dominates the 1 per cent of the Indian population that has access to broadband Internet, and can easily access pirated content online.

However, the Indian film industry's target audience includes not just this privileged segment, but a much larger rural and lower middle-class segment that constitutes the vast majority of India's population. As members of the latter segment gradually rise up the economic ladder, they are likely to invest in home Internet connections, if affordable. The availability of free online entertainment on the Internet might even encourage such spending. Thus, if the Indian film companies aid in keeping Internet costs low by not insisting on three-strikes laws, and even upload some content for free online, they might gain access to an enormous, untapped segment of the Indian population. Even if this segment occasionally watches pirated films online, the benefits of gaining access to this segment would outweigh the losses due to piracy within this segment.

[66] Committee on Piracy (n 12) 5–8.

[67] See, for example, 'Editing Assistant Nabbed for Leak of *Attarintiki Daredi*' *DNA* (Bombay, 25 September 2013) <http://www.dnaindia.com/entertainment/report-editing-assistant-nabbed-for-leak-of-attarintiki-daredi-1893643> accessed 11 November 2013.

[68] See Manish Raj, 'Police Helpless as Video Piracy Thrives in City' *Times of India* (Madras, 18 April 2013) 5; K Praveen Kumar, 'Goondas Act Fails to Curb Thriving Video Piracy in TN' *Times of India* (Madras, 20 November 2009) 2.

[69] Committee on Piracy (n 12) 5–8.

Hence, arguably, it is time for the Indian film industry to think beyond the demand for stricter copyright laws and contemplate some alternative strategies to combat piracy. The author would like to propose three such strategies.

First, the industry should devote more resources to fighting piracy in developing countries. The Indian cinema audience is characterized by a sharp demographic divide. A crucial segment of the Indian film audience consists of South Asian communities in developed nations like the United States, the United Kingdom, Canada, and Australia. Since ticket prices in these countries are much higher than in India, a film that is even moderately successful in these countries yields more revenues than a box-office hit in India. Thus, despite being outnumbered by audiences in India, Indian communities abroad form the primary target audience for most large Indian film producers.[70] Just as theatre audiences in developed nations are more profitable to the Indian film industry, downloaders of pirate content in such countries conversely cause more losses to the industry. For example, even in the most expensive theatres in urban India, the ticket price of an Indian film would be around INR 250. In cheaper theatres and in rural areas, a ticket could cost one-tenth that amount. In comparison, a ticket in a British theatre would cost between GBP 10 and GBP 15 (roughly between INR 900 and INR 1,250).

Thus, if a person in London skips a plan to pay GBP 15 to watch an Indian film at a Leicester Square theatre because he or she found the film on a torrent sharing website, the economic loss resulting from this lost viewer will be far more than that caused by a lost viewer in India. There is no doubt that such losses are already taking place. For instance, in the case of *Kaminey*, mentioned above, a third of the illegal downloads originated from outside India. Curiously, the Indian film industry's copyrights have been 'largely unenforced' outside India, due to a reluctance to litigate and lack of industry influence.[71] One of the few exceptions—a suit filed in Canada against alleged pirates of the hugely successful film *3 Idiots*—resulted in a rolling Anton Piller order granted to the producer being set aside due to 'insufficient evidence as to "serious damage" and no proper proof that the defendants would be likely to hide or destroy relevant documents or things.'[72]

Rather than be dissuaded by this example, the Indian film industry should frame better litigation strategies and sue pirates abroad with greater diligence. The fact that courts in developed nations usually award high damages, and that enforcement of copyright laws in developed nations is strong would seemingly promise Indian copyright owners greater rewards than litigating in India. At the very least, the industry should try and mull strategies such as sending warning letters to home users, entering into private agreements with Internet service providers, and investing in lobbying efforts.

Second, the industry should strive to provide consumers in India with cheaper ways of accessing content. The Committee itself suggested that businesses should try to develop an 'innovative business model' and make CDs and DVDs more affordable for consumers.[73] One Indian company, the optical disc manufacture Moser Baer, has led the way. Moser Baer sells licensed copies of films for low prices, and is credited with triggering 'a small revolution in price and accessibility.'[74] In recent times, some leading Indian film studios have made films available online on YouTube for free, or for rental.[75] Sceptics would argue that consumers would prefer to access pirated content for free than pay for lawful content online, even if the latter is cheaply priced. This argument could be bolstered by citing the example of Flyte, an Indian music download website which recently closed operations due to inadequate sales.[76] However, a point often missed is that India is predominantly a cash-based economy. If companies could devise a model through which consumers rent films online by paying in cash rather than through credit cards, such a model is likely to be more successful, just as Moser Baer's business model, which relies on cash-based transactions, has been. Indeed, even executives from Flyte have acknowledged that one of the reasons the website failed was because India lacks a system of 'easy micro-payments.'[77]

Third, the industry should do its bit to address the issue of access to entertainment. The industry should try to promote the establishment of more

[70] See Arpan Banerjee, 'A Case for Economic Incentives to Promote "Parallel" Cinema in India' [2011] 16 Media and Arts Law Review 21, 24.
[71] Liang and Sundaram (n 14) 387.
[72] *Vinod Chopra Films v Doe* [2010] FC 387 (Federal Court of Toronto).
[73] Committee on Piracy (n 12) 29.
[74] Liang and Sundaram (n 14) 370–3.
[75] See Sita Wadhwani, 'Shemaroo's YouTube Bollywood Movie Channel' (*CNN*, 9 May 2011) <http://travel.cnn.com/mumbai/life/shemaroos-bollywood-youtube-channel-973612> accessed 11 November 2013; Nikhil Pahwa, 'Bollywood Movie Dabangg Released On YouTube; Need To Improve Discovery' (*Medianama*, 3 December 2011) <http://www.medianama.com/2011/01/223-youtube-dabangg> accessed 11 November 2013.
[76] See Javed Anwer, 'Flyte Fails to Take Off, Flipkart to Shut Down Music Store' *Times of India* (New Delhi, 29 May 2013) <http://articles.timesofindia.indiatimes.com/2013-05-29/internet/39600700_1_flipkart-itunes-store-music-store> accessed 11 November 2013.
[77] ibid.

theatres in India, along with a culture of watching cinema on the big screen where none such exists. India has a very low screens-per-capita ratio, the industry's excuse being high taxes on theatres and an absence of incentives to invest.[78] Yet, lack of access to legitimate content will only encourage piracy, and it is tempting to argue that it even justifies piracy. For instance, the noted director Anurag Kashyap has observed:

> I am what I am today simply because of piracy … it was because of piracy that people saw my work. Not all films are legally available in every city. Even Hollywood films that you may want to see aren't available in your city and, therefore, often we take the help of piracy because there are no legal alternatives.'[79]

It is thus imperative for the industry to make efforts to open theatres in areas where there are few. If necessary, the industry should lobby with the Government for incentives to make such investments. Even without the presence of large theatres, the industry can explore other monetization options. For example, there is no copyright-collecting society for films in India such as the Motion Picture Licensing Corporation. If the industry works to establish such an organization, it can license films to smaller venues in both urban and rural areas.

V. CONCLUSION

India is often perceived as a country with weak copyright laws. In truth, Indian laws are more than adequate to tackle copyright infringement. It is really the enforcement of these laws, particularly criminal laws, that has been inadequate. In the age of digital piracy, the smallest chink in the enforcement mechanism could lead to pirated films going viral. This is precisely the reason why enacting more stringent laws would do little to curb piracy. There are two facts that the Indian film industry must ponder over: (a) the discouraging fact that India is too large, too poor, and too complex a country to have an enforcement mechanism similar to that in developed countries; and (b) the encouraging fact that a large segment of the Indian population, which lacks access to the Internet and other avenues for entertainment, could grow to become a lucrative market if and when it gains access to these amenities. Thus, the industry should explore alternative strategies to combat piracy, keeping in mind these realities.

[78] See Banerjee (n 70) 8–11.

[79] Prathna Tiwari, 'It Was Because of Piracy that People Saw My Work' – Anurag Kashyap' (*Bolly Spice*, 5 August 2012) <http://bollyspice.com/47518/it-was-because-of-piracy-that-people-saw-my-work-anurag-kashyap> accessed 11 November 2013.

BIBLIOGRAPHY

Anwer J, 'Blocking Website in India: Reliance Communications Shows It Is Very Easy' *Times of India* (New Delhi, 24 December 2011) <http://articles.timesofindia.indiatimes.com/2011-12-24/internet/30554592_1_block-websites-reliance-communications-reliance-entertainment> accessed 11 November 2013

Banerjee A, 'A Case for Economic Incentives to Promote 'Parallel' Cinema in India', (2011) 16 Media and Arts Law Review 21

Barooah S, 'USTR's Special 301 Process 2013 – India on Priority Watchlist' (*Spicy IP*, 4 May 2013) <http://spicyip.com/2013/05/ustrs-special-301-process-2013-india-on.html> accessed 11 November 2013

Burke J, 'Indian Computer Tablet Could Herald an Internet Revolution' *The Guardian* (London, 12 January 2012) <http://www.guardian.co.uk/technology/2012/jan/12/indian-computer-tablet-aakash-internet> accessed 1 November 2013

Chatterji S, 'Protest Against Piracy: Death Knell for Music?' (*India Together*, 27 July 2013) <http://www.indiatogether.org/2013/jul/eco-piracy.htm> accessed 11 November 2013

Committee on Piracy, Report of the Committee on Piracy (2010)

Debroy B, Chakraborty D, and Guha A, 'Copyright Protection and Consumer Welfare: A Case Study of Rabindra Rachanabali' [2005] 6 Global Business Review 55

Ernst and Young, The Effects of Counterfeiting and Piracy on India's Entertainment Industry (2009)

Federation of Indian Chambers of Commerce and Industry and KPMG, *Indian Media and Entertainment Industry Report* (2011)

Frater P, 'Online Piracy in India a Global Problem' (Hollywood Reporter, 15 October 2009) <http://www.hollywoodreporter.com/news/online-piracy-india-global-problem-92365> accessed 1 October 2013

Ganti T, Bollywood: A Guidebook to Popular Hindi Cinema (Routledge 2013)

Ganguly P, '75 Politicians Watch Pirated Rajneeti DVD in Rajasthan' DNA (Bombay, 31 May 2010) <http://www.dnaindia.com/entertainment/1390219/report-75-politicians-watch-pirated-rajneeti-dvd-in-rajasthan> accessed 1 October 2013

Ghosh S, 'A Roadmap for TRIPS: Copyright and Film in Colonial and Independent India' (2011) Queen Mary Journal of Intellectual Property 146, 162.

Gupta J, 'John Doe Copyright Injunctions in India' [2013] 18 Journal of Intellectual Property Rights 351

Indian Cinematograph Committee, *Report of the Indian Cinematograph Committee* (1928)

Jeffrey R, 'The Mahatma Didn't Like the Movies and Why It Matters: Indian Broadcasting Policy, 1920s–1990s' [2006] 2 Global Media and Communication 204

Joseph R, 'Combating Piracy' (Fifth Estate,1 November 2011) <http://t5e.iitm.ac.in/2011/11/combating-piracy> accessed 1 October 2013

Kaul G, *Cinema and the Indian Freedom Struggle* (Sterling 1998)

Kumar PK, 'Goondas Act Fails to Curb Thriving Video Piracy in TN' *Times of India* (Madras, 20 November 2009) 2

Law Commission of India, *Delays and Arrears in High Courts and Other Appellate Courts* (Law Com No. 79, 1979) [2.1]–[2.5],[15.1]–[15.2] <http://lawcommissionofindia.nic.in/51-100/Report79.pdf> accessed 11 November 2013

Liang L and Sundaram R, 'India' in Joe Karganis (ed), *Media Piracy in Emerging Economies* (Social Science Research Council 2011)

Maitra D, 'India's Broadband Base Touches 13 Million' *Deccan Herald* (Bangalore, 11 January 2012) <http://www.deccanherald.com/content/218464/indias-broadband-base-touches-13.html> accessed 1 October 2013

Martin-Jones T, 'Marius Sestier in India' (*Film HistoryNotes*, 12 June 2011) <http://www.apex.net.au/~tmj/sestier-in-India.htm> accessed 18 September 2013.

Ministry of Communications and Information Technology, *A Triad of Policies to Drive A National Agenda for ICTE* (2011)

Motion Picture Association of America, *Theatrical Market Statistics* (2012) 5 <http://www.mpaa.org/resources/3037b7a4-58a2-4109-8012-58fca3abdf1b.pdf> accessed 1 October 2013

Narayanan P, *Law of Copyright and Industrial Designs* (Eastern Law House 2007) 7–9

Office of the United States Trade Representative, *Special 301 Report* (2013).

Pahwa N, 'Bollywood Movie Dabangg Released On YouTube; Need To Improve Discovery' (*Medianama*, 3 December 2011) <http://www.medianama.com/2011/01/223-youtube-dabangg> accessed 11 November 2013

Prashant Reddy, 'Video Pirates, Preventive Detention and the Constitution of India' (*Spicy IP*, 28 September 2009) <http://spicyip.com/2009/09/video-pirates-preventive-detention-and.html> accessed 11 November 2013

Raj M, 'Police Helpless as Video Piracy Thrives in City' *Times of India* (Madras , 18 April 2013) 5

Sen A, 'India Protests Against Being Put in US Priority Watch List With Insufficient IP Protection' *Times of India* (New Delhi, 8 May 2012) <http://articles.economictimes.indiatimes.com/2012-05-08/news/31626695_1_ipr-protection-patents-india-protests> accessed 11 November 2013

Thomas Z, 'Overview of Changes to the Indian Copyright Law' [2012] 17 Journal of Intellectual Property Rights 324, 326–7.

Tiwari P, 'It Was Because of Piracy that People Saw My Work' – Anurag Kashyap' (*Bolly Spice*, 5 August 2012) <http://bollyspice.com/47518/it-was-because-of-piracy-that-people-saw-my-work-anurag-kashyap> accessed 11 November 2013

UNESCO, *Institute for Statistics, Analysis of the 2010 UIS International Survey on Feature Film Statistics* (2012) 8–10, 17–18 http://www.uis.unesco.org/FactSheets/Documents/ib8-analysis-cinema-production-2012-en2.pdf> accessed 1 October 2013

Wadhwani S, 'Shemaroo's YouTube Bollywood Movie Channel' (*CNN*, 9 May 2011) <http://travel.cnn.com/mumbai/life/shemaroos-bollywood-youtube-channel-973612> accessed 11 November 2013

6 THE ECONOMIC IMPACT OF THE TRIPS-PLUS PROVISION IN THE JORDAN-UNITED STATES FREE TRADE AGREEMENT

*Dr Taleb Awad Warrad

ABSTRACT

Despite the extensiveness of the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), the increase in the international standards of intellectual property (IP) protection resumed following TRIPS through bilateral means. Developed countries that export a great deal of IP, in particular the United States and European Union, pursue a policy of negotiating bilateral free-trade agreements (FTAs) that require IP protection far beyond TRIPS-mandated standards, termed 'TRIPS-Plus' FTAs. Such agreements, which include more extensive IP obligations than TRIPS (TRIPS-Plus), have an impact on public health and access to medicines, particularly upon developing countries.

The main objective of this paper is to investigate the macroeconomic impacts of TRIPS-Plus sub-agreements included in the FTAs Jordan has signed and applied. The paper explores TRIPS-Plus requirements in those FTAs and analyses the relationship between intellectual property rights (IPRs) and technology transfer. Furthermore, it examines the development of IPRs in Jordan and provides an assessment of the economic impact of TRIPS-Plus provisions.

I. INTRODUCTION

The Uruguay Round of Trade Negotiations in 1994 resulted in the birth of the WTO, TRIPS, and the international recognition of IP's impact on public health. The 1994 TRIPS Agreement established obligations of WTO Member States to comply with certain international rules protecting the rights of owners of patents and copyrights. By construction, the TRIPS Agreement was flexible and allowed governments to violate patent rights under some conditions. For example, TRIPS permits countries to seize patents and issue compulsory licences—authorizing a domestic firm to produce and sell generic equivalents of a brand name drug without permission from the foreign inventor—under 'a national emergency or other circumstances of extreme urgency' and for certain other uses. In addition, TRIPS provisions such as Article 73(b) establish a general exception for any measures a Member feels are necessary for its security interests.[1] However, despite the extensiveness of TRIPS, the increase in the international standards of IP protection resumed following TRIPS through bilateral means. Developed countries that export a great deal of IP, in particular the United States and European Union pursue a policy of negotiating bilateral FTAs that require IP protection far in excess of TRIPS-mandated standards, termed 'TRIPS-Plus' FTAs. Such agreements, which include more extensive IP obligations than TRIPS (TRIPS-Plus), have an impact on public health and access to medicines, particularly upon developing countries.

The main objective of this paper is to investigate the macroeconomic impacts of TRIPS-Plus sub-agreements included in the FTAs Jordan has signed and applied. Although patents are a crucial factor in spurring development of new technologies and therefore must be protected, granting protection can prevent access by those who need the technology most. For example, many scholars believe that IP protection should not be a barrier to the distribution of pharmaceuticals in areas facing a human-health crisis. The TRIPS Agreement tries to mitigate this tension, offering flexibilities in IP protection, when necessary, to safeguard human health. Section II reviews briefly the TRIPS Agreement; section III analyses the economics of TRIPS; TRIPS-Plus is discussed in section IV, followed by an analysis in section V of the relationship between IPRs and technology transfer. Section VI explores the development of IPRs in Jordan, along with an assessment of the impact of TRIPS-Plus provisions on economic growth; sections VII and VIII contain concluding thoughts and remarks.

II. THE TRIPS AGREEMENT

The preparation of new, binding international norms began in two forums within GATT, in the framework of the Uruguay Round negotiations, and at the World Intellectual Property Organization (WIPO). After the end of the Uruguay Round and the birth of the WTO, the TRIPS Agreement was adopted in 1995. TRIPS is the most comprehensive agreement in the field of IPRs. Consisting of seven parts and 73 articles, TRIPS contains provisions which provide minimum standards of protection for each branch of IP, including the protection of copyrights, patents, trademarks, geographical indications, lay-out designs, and trade secrets, as well as unfair competition. Under TRIPS, each of these branches is defined by three characteristics: the subject matter to be protected, the rights to be conferred and

* **Dr Taleb Awad Warrad** (Jordan) is Professor of International Economics, Faculty of Business, Department of Business Economics, at the University of Jordan: t.awad@ju.edu.jo. A first draft of this paper was presented at the 10th WIPO-WTO Colloquium for Teachers of Intellectual Property held in Geneva from 16 to 28 June 2013. The author wishes to thank all those who provided valuable inputs, comments and observations on the first draft and particularly to participants and experts from both WIPO and WTO.

[1] TRIPS Agreement: <http://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm>

permissible exceptions to those rights, and the minimum duration of protection periods.[2]

One of TRIPS's strengths lies in its enhanced enforcement provisions and its incorporation of the WTO dispute-settlement procedure. All pre-TRIPS IP agreements lacked detailed rules on transparency and enforcement of IPRs before both national and international judicial and administrative authorities.[3] TRIPS built upon some of the existing international agreements in the IP field, including the Paris and Berne Conventions.[4]

However, despite the comprehensive coverage of TRIPS, the Agreement did not put an end to the global regulation of IP. Efforts by WIPO continued to deal with problems not addressed by the TRIPS Agreement. To this end, in 1996 the WIPO Diplomatic Conference on Certain Copyright and Related Rights Questions adopted two treaties: the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT).[5] In addition, efforts by developed countries, who traditionally were in favour of raising the levels and standards of IP protection, continued after the conclusion of the Agreement. In particular, the European Union and the United States intensified their efforts through various unilateral and bilateral initiatives to raise the levels of IP protection beyond those prescribed under TRIPS, hence resulting in the so-called 'TRIPS-Plus effect.'[6] This paper will focus on TRIPS-Plus development that comes within the framework of US and EU FTA agreements.

III. ECONOMICS OF TRIPS

Economists usually prefer the free working of markets with minimum government intervention so long as no market failures exist. However, more frequently, especially in the case of developing countries, multiple market distortions exist. One such common failure is the existence of public goods. In particular, the spread of knowledge is non-rivalrous and non-excludable, which means such spread can be enjoyed by anyone through file-sharing technology. In such cases, it is difficult to prevent people from obtaining the benefit of public goods or services. In the absence of government subsidies or IPR enforcement, such goods or services will be under produced and under supplied relative to a socially optimal level. This is due to the fact that potential producers will not be able to realize a profit (since the good can be obtained for free) sufficient enough to justify the costs of production. To reach the optimal level of knowledge crucial for development, knowledge producers must be either financially compensated or protected by IPR law enforcement.

On the other hand, the enforcement of IPR law increases social costs, because it limits competition and introduces monopoly pricing, thereby raising the cost of research and development for follow-on inventors. Therefore, it is crucial for a country to be able to choose the proper strength of IPR protection, in order to maximize innovations and technological progress, economic growth and ultimately its social welfare.

Furthermore, since economies differ in their stage of development, economists believe that the optimal strength of IPRs will be different between developing and developed countries.[7] As shown in Figure 6.1, to maximize social welfare, developing countries require much weaker IPRs compared to developed countries. This implies the existence of interest conflicts between the two groups of countries in terms of the desired strength of IPRs.

[2] ibid.

[3] For example, the Paris and Berne Conventions allowed recourse only to the International Court of Justice (ICJ), which was non-binding on member states.

[4] TRIPS standards concerning the availability, scope and use of intellectual property refer to and reproduce Articles 1–12 and 19 of the Paris Convention, Articles 1–21 of the Berne Convention and Articles 2–7 and 16 of the Washington Convention. TRIPS also refers to the above-mentioned conventions with regard to the enforcement of intellectual property as well as the acquisition and maintenance of these rights.

[5] Details of these agreement can be found online: <http://www.wipo.int/meetings/en/topic.jsp?group_id=23>

[6] Pete Drahos, 'BITS and BIPS: Bilateralism in Intellectual Property' [2001] Journal of World Intellectual Property (4), pp. 791–808.

[7] Grossman and Lai [2004]; Kim, Lee, Park, and Choo [2012].

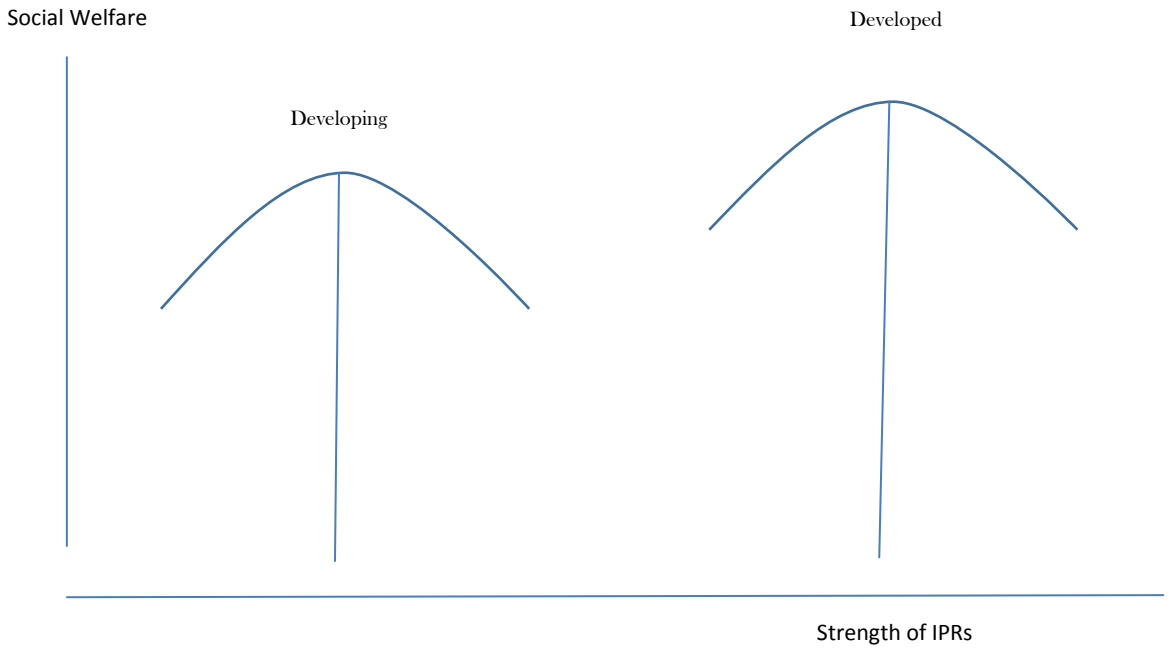


Figure 6.1 Relationship between the strength of IPRs and level of development

Indeed, many of the developed countries have used bilateral FTAs to achieve higher levels of IPR protection, or what has become known as TRIPS-Plus FTAs, at the expense of developing countries.

Furthermore, since developed countries are the main exporters of knowledge-intensive products, their potential gains from stronger IPRs increase in cases of demand for inelastic goods such as medicine. To illustrate this point, Figure 6.2 depicts the market equilibrium for certain medical goods which are characterized by an inelastic demand curve. As higher levels of IPRs are expected to cut down the production and supply of that good, it will induce sharp price increases—due to inelastic demand—and will greatly benefit the exporting developed country at the expense of the importing developing country.

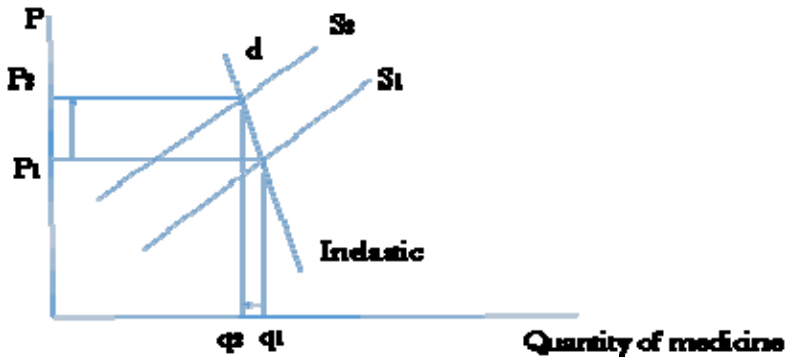


Figure 6.2 Market equilibrium of demand-inelastic good (medicine)

The above analysis provides one explanation for the underlying drivers behind developed countries' push for TRIPS-Plus FTAs. Another explanation for the push for TRIPS-Plus is what has become known in regulation theory as regulatory capture or revolving door. According to this explanation, IP is a highly complex subject: it involves interests of policymakers, courts, and attorneys and agents of IP owners' associations. According to Stigler, regulations tend to be acquired, designed and operated for the benefit of large industries and with collusion of the relevant state agencies.[8] According to this approach, TRIPS-Plus provisions maximize private welfare, not social welfare.

IV. FREE TRADE AGREEMENTS AND TRIPS-PLUS

Jordan has followed a consistent and active strategy of trade liberalization. It has promoted policies of both regional and bilateral trade agreements during the last two decades, based mainly on economic considerations. Its trade-opening policy has not been limited to the Arab region, but has expanded to major partners in Europe, the United States, and most recently to Turkey and Canada.

These FTAs are unprecedented in many aspects, particularly with respect to TRIPS, by actually building on the international architecture of IPRs. They establish, as a major principle, that nothing in the Agreements derogates from the obligations and rights of the parties by virtue of TRIPS or other multilateral IP agreements administered by WIPO.

They enshrine the national treatment principle of non-discrimination between nationals of the two countries and, as a consequence of the most-favoured-nation principle in TRIPS, the advantages, benefits and privileges granted by the FTA are automatically accorded to the nationals of all other WTO Members. Because of the principle of non-derogation, the FTAs do not deal with all IPR-related subject matters. They focus on few but important ones. The FTAs contain detailed provisions on issues not dealt with at all in TRIPS, such as domain names on the Internet, related rights of performers and producers of phonograms, remedies against the circumvention of effective technological measures, effective legal remedies to protect rights-management information, and protection of encrypted program-carrying satellite signals. In traditional areas already covered by TRIPS, they expand the coverage of trademarks and the protection of pharmaceutical products.

On copyright, these FTAs make a distinctive difference between copyright and related rights, reflecting the different legal systems prevailing in the two countries. Most notably, for pharmaceutical products, such FTAs expand protection by different means, including[9]:

- The reinforcement of the provisions on marketing and sanitary approval;
- the adjustment of the patent term to compensate for unreasonable delays in its granting;

[8] George J Stigler, 'The Theory of Economic Regulation' 2 The Bell Journal of Economics and Management Science 1 (1971).

[9] The Australia–United States Free Trade Agreement (AUSFTA) <http://en.wikipedia.org/wiki/Australia%E2%80%93United_States_Free_Trade_Agreement>

- the prohibition of the use of undisclosed information about the safety and efficacy of pharmaceutical products for five years from the date of its marketing or sanitary approval;

- the extension of the patent term to compensate for unreasonable curtailment of the patent term as a result of marketing approval; and

- the granting of marketing approval to third parties requiring the consent or acquiescence of the patent owner.

By raising the strength of IPRs in developing countries, TRIPS-Plus FTAs became controversial among economists, particularly regarding whether they pushed IP strength beyond the 'optimal' level and hence negatively affected the overall economic performance of developing countries. The final impact depends on whether the resulting market power would then dominate any market expansion effects of IPRs on inward technology diffusion. The final net effect depends on the particular country's economy and can only be resolved empirically.

V. INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY TRANSFER

A crucial question arises when discussing technology transfer from developed to developing countries: will stronger IPRs enhance the diffusion of technology? Economic analysis suggests that IPR protection can encourage technology transfer through a number of channels such as access to new products and processes via exports, foreign direct investment (FDI), and licensing by developed countries. However, the net impact is not clear-cut. It depends on the market-expansion effect compared to the resulting market-power effect of IPRs. Again, the relationship between IPRs and technology transfer is complex and non-linear. The net effect (i.e. market expansion versus market-power effect) depends on the size of market and imitative capacities of the host country.

On the one hand, stronger IPR protection could hamper the diffusion of technology, with patents preventing others from using proprietary knowledge and the increased market power of IPR holders potentially reducing the dissemination of knowledge due to lower output and higher prices. On the other hand, IPRs could play a positive role in knowledge diffusion, since the information available in patent claims is available to other potential inventors. Moreover, strong IPR protection may encourage technology transfer through increased trade in goods and services, FDI, technology licensing and joint ventures. Though, once again, the impact of strong IPR protection has been found to depend upon other factors related to a country's imitative ability and level of development.[10]

Empirically, the effects of stronger IPR protection vary by industry and level of economic development of the host country. They also depend on other factors such as human capital, wages, market size, taxes, governance, and technological level. For most high-income countries, strengthening IPRs may affect growth positively due to increased innovation and technology diffusion. For middle-income countries, the evidence suggests that strengthening IPRs has little effect on growth. On one hand, a stronger IPR regime encourages both domestic innovation and technology diffusion through foreign patenting and international trade and hence may positively affect growth. On the other hand, the beneficial impact of stronger IPR protection on domestic innovation and technology diffusion is, to a certain extent, offsetting the growth-enhancing benefits otherwise obtained from imitation and now precluded by the stronger IPR regime. The IPR regimes in these countries will need to be strengthened in order to meet TRIPS standards. The policy focus of these countries should be to encourage domestic firms to shift from imitation to innovation and to facilitate other activities with growth-enhancing technology spillovers.[11]

VI. DEVELOPMENT OF INTELLECTUAL PROPERTY RIGHTS IN JORDAN

Intellectual property standards in Jordan have been steadily developed and strengthened through various international agreements. Initially the accession to the WTO raised IP standards in Jordan to meet the WTO's TRIPS standards. Later on the Jordan-United States Free Trade Agreement (JUSFTA) followed by the Jordan-European Union Association Agreement (JEUAA) added more requirements. The following will briefly review the additional commitments (including TRIPS-Plus FTAs) resulting from these FTA agreements.

A. JUSFTA

JUSFTA, which was signed on 24 October 2000 and became effective on 17 December 2001, states that its IP requirements are merely the minimum required, and that each State is free—indeed encouraged—to continue to seek higher and more stringent protections. The current minimal

[10] Leverhulme Falvey, Neil Foster and Olga Memedovic, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (UNIDO working papers 2006).
[11] ibid.

requirements, include obliging both parties to adopt articles from the Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks (1999), the International Convention for the Protection of New Varieties of Plants (1991) (UPOV Convention), the WIPO Copyright Treaty (WCT) (1996), and the WIPO Performance and Phonograms Treaty (WPPT) (1996). Additionally, each party is required to use its best efforts to ratify the Patent Cooperation Treaty (PCT) (1984) and the Madrid Protocol Concerning the International Registration of Marks (1989).[12]

The following is a brief description of the new requirements imposed on some of the main IP areas under the JUSFTA, all of which exceed those required under TRIPS. In particular, the agreement contains several TRIPS-Plus provisions that directly impact public health and access to medicines within the countries. These may be summarized as follows[13]:

(a) Data exclusivity protection. JUSFTA obliges Jordan to provide legal protection for data exclusivity for a period which may be extended up to eight years.

(b) 'New use' legal protection for chemical entities. Although the TRIPS Agreement does not oblige Member States to provide legal protection for new use, JUSFTA references to this type of protection.

(c) Patent term extension. Article 33 of the TRIPS Agreement provides that legal protection shall be granted to patents for a period of 20 years from the date of filing. JUSFTA further extends this period in order to compensate the applicant for the time spent during the examination of the application and/or marketing authorization.

(d) Restrictions on compulsory licensing. The TRIPS Agreement on compulsory licensing gives the government the authority to use a patent without the patent holder's authorization in return for just compensation. However, the Agreement does not list or specify the grounds whereby such licences may be granted, but instead awards Member States the discretion to define such grounds. On the other hand, JUSFTA lists the grounds where such licences may be granted, hence limiting the policy space available to Jordan by broadly defining these grounds.

(e) Trademarks and geographical indications. JUSFTA removed the previously existing requirement that a trademark must be registered in Jordan, in order for the trademark holder to assert any rights under the trademark and raised the maximum criminal fine for an IP violation to JOD 6000.

(f) Copyrights and Related Rights. The JUSFTA added significant requirements, and thus higher standards, for copyright protection including:

(i) Giving performers and producers of phonograms the right to prohibit unauthorized broadcasting of their works;

(ii) giving right holders control over allowing or denying the importation of protected work(s), whether the work is pirated or an authorized version;

(iii) asking the signatories to combat technology that is intended to circumvent the effective technological measures that are used by performers or producers in connection with the exercise of their rights in accordance with Article 11 of WCT and Article 18 of WPPT;

(iv) asking governmental agencies to use only computer software authorized for intended use. Both parties must actively regulate the acquisition and management of software for government use;

(v) requiring 'that statutory maximum fines are sufficiently high to deter future acts of infringement with a policy of removing the monetary incentive to the infringer.'

The criminal fines were increased to a maximum of JD 6000, and provisions were added to protect performers.

(g) Patents. A new Patent Law was enacted in 1999 to comply with TRIPS obligations. In 2001, new patent regulations were introduced to help facilitate the process of filing for a patent. While the 1999 law is in compliance with the TRIPS Agreement obligations, JUSFTA introduced several TRIPS-Plus requirements in the field of patents and regulated products. The main new obligations are:

(i) Jordan must make available an extension of the patent term to compensate the patent owner for unreasonable curtailment of the patent term as a result of the marketing approval process. Jordan has yet to meet that requirement;

[12] F K Nesheiwat (2010).
[13] ibid.

(ii) Jordan must commit to joining the PCT. Jordan has yet to meet that requirement; and

(iii) Jordan must clarify that the exclusion from patent protection of 'mathematical methods' in Article 4(b) of Jordan's Patent Law does not include such 'methods' as business methods or computer-related inventions. The Jordan Patent Office is now accepting business methods patents applications in light of the above commitment.

B. JORDAN-EUROPEAN UNION ASSOCIATION AGREEMENT (JEUAA)

The European Union signed an Association Agreement with Jordan on 24 November 1997; it was ratified by the Jordanian Parliament in September 1999 and came into force on 1 May 2002. While the IP components of JEUAA were not as detailed as those of TRIPS or Article 4 of the JUSFTA, they are nonetheless the most constraining. Initially, the JEUAA presents several requirements for Jordan to fulfil in the area of IP, including compliance with[14]:

- The Berne Convention for the Protection of Literary and Artistic Works (Paris Act 1971);
- The Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome 1961);
- The Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks (Geneva Act 1977 and amended in 1979);
- The Madrid Agreement Concerning the International Registration of Marks (Stockholm Act 1967, amended 1979);
- The Protocol Relating to the Madrid Agreement concerning the International Registration of Marks (Madrid 1989);
- The Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977, modified 1980); and
- The International Convention for the Protection of New Varieties of Plants (UPOV) (Geneva Act 1991).

[14] ibid.

Furthermore, the JEUAA requires Jordan to join the PCT within seven years of the ratification of the association agreement, echoing a similar request in the JUSFTA. It requires Jordan to adopt the highest standards and places a requirement in perpetuity to upgrade and amend its IP regulations to meet that requirement. Also, the Association Council can make Jordan accede to the new agreements or legislatively approve the new standards if Jordan is a party to the modified treaty already.

In sum, the composite of standards imposed through JUSFTA and JEUAA have significantly increased the level of protection over the baseline standards defined in TRIPS.

VII. IMPACT OF TRIPS-PLUS PROVISIONS ON ECONOMIC GROWTH

Little evidence exists that strong IPRs encourage greater research and development (R&D) in developing countries. The experience of Switzerland is a good example of a country which had no patent law during the late 19th century, but was the most innovative in that period. H. El-Said and M. El-Said (2007), analysed the TRIPS-plus provisions of the JUSFTA and found no evidence to support claims that the FTA has enhanced availability and accessibility of medicines in Jordan, attracted foreign investment, improved R&D capacity of local manufacturers, or led to more collaboration between national and multinational pharmaceutical companies. R. Malpani from Oxfam (2007), reported that medicine prices have increased significantly in Jordan since the FTA, partly as a result of TRIPS-plus rules. Stronger IP protections have produced minimal benefits to FDI, domestic R&D, or the introduction of new medicines. The report predicted that medicine prices will continue to rise in Jordan and that the country would be unable to use certain TRIPS flexibilities.

Nesheiwat (2010) examined, through the pharmaceutical sector, the claims about the positive impact of IP standards on FDI influx. He found no evidence in support of these claims.

Ryan B. Abbott and others (2012) reported that the delayed market entry of generics due to enhanced IP protection had increased total annual expenditure for medicines in Jordan by 17 per cent during the period of 1999–2004. They estimated these delays to have cost Jordanian private consumers approximately USD 18 million in 2004.

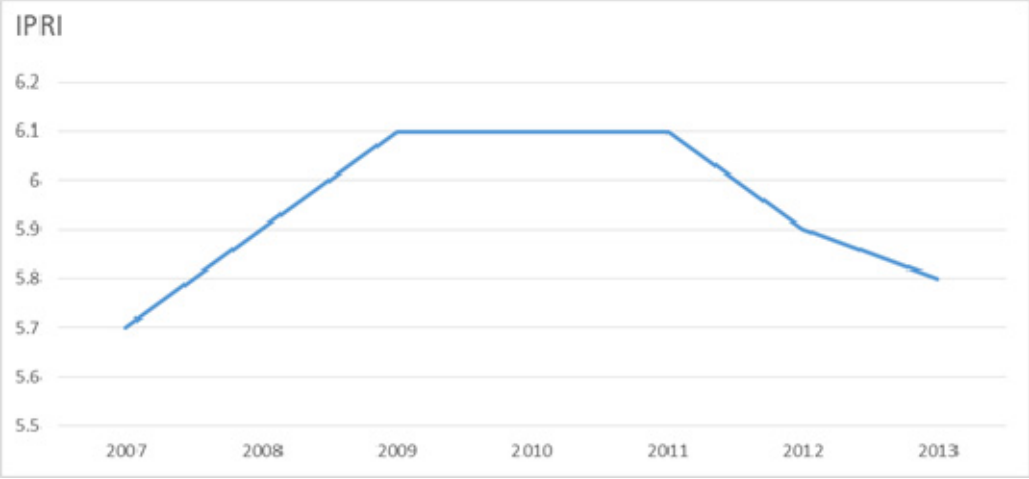
According to the 2013 IPR report, Jordan scored well above average, achieving a score of 5.8 on the 2013 intellectual property right index (IPRI). That score

ranked 45th out of 130 globally and 7th out of 21 within the Middle East and North Africa (MENA) region. The highest IPRI sub-score in this measure is for patent protection (6.9) followed by protection of IPRs (6.4) (Table 6.1). The weakest score was for copyright piracy which implies that Jordan can improve its performance on IPRI by simply tightening copyright protection.

Table 6.1 International Property Rights, Jordan, 2013

Category	Score	Global Rank	Regional Rank (MENA)
Intellectual Property Rights	5.8	45 of 130	7 of 21
Protection of Intellectual Property Rights	6.4	39 of 130	10 of 21
Patent Protection	6.9	45 of 130	7 of 21
Copyright Piracy	4.2	52 of 130	7 of 21

Source: The Property Rights Alliance (PRA), International Property Rights Index 2013.



Source: based on International Property Rights Index 2007-2013

Figure 6.3 Development of International Property Rights Index, Jordan, 2007 – 2011

Figure 6.3 shows that Jordan's performance according to IPRI improved steadily up to 2009, stabilized after that point until 2011, and worsened thereafter.

A. Measuring the Impact of TRIPS-plus on Economic Growth: Methods and Analysis

Different empirical growth models are available depending on what economic growth theory one uses. Similar to the methodology used by Lim Gee, Abdul Ghani Azmi, and Rokiah Kulliyyah (2008), Han Young, Jang Kwang-Chul (2009), and S.K. Verma and N.V. Muralidhar Rao (2009), this paper utilizes the neoclassical growth theory in which total output (measured by GDP) is determined mainly by factors of production and technology. We assume a general form production function, in which production is a function of inputs: capital, labour, and technology. The coefficients in this general specification need not sum to one (no CRS technology is assumed). The general form of production function can be expressed at time period t as follows:

(i) $Y_t=A_tF(\text{capital, labour})$

(ii) Taking total differential of (1) and rearranging yields: dlog Yt=dA/A+b1 dlog(capital)+b2 dlog(labour)

All variables are transferred in difference logs of original variables. B1 and B2 are the partial unknown growth coefficients.

Hence, the technological change variable can be viewed as the sum of two effects: first the effect of policy variables mentioned above, and second, random disturbances (e_t) resulting from unobserved shocks like sudden changes in weather or resource availability and other unexplained changes. As explained earlier, other policy variables that may affect economic growth through the term dA/A may include trade openness and IPR policy.

Hence the econometric model to be estimated can be written as:

(iii) dlog Yt=b0+b1 dlog(capital)+b2 dlog(labour)+b3 dlog(IPR)+b4 (policy)+ e_t

The coefficient of the policy variable added to the production function in equation (3) measures the impact of trade openness and/or other policy variables on technological changes. After controlling for the impact of factors of production, the variable IPRs are added to capture the impact of Jordan's IPR policy on real growth measured by the IPRI. Furthermore, to account for human capital effect on growth, a measure for education level (educ) is added to the equation. The variable educ is measured by secondary-school enrolment. However, since data on IPRI is available only for the period 2007–2013, it is dropped from the estimated equation. In a single country analysis, the only feasible way to measure the impact of TRIP-Plus requirements introduced by the two free-trade areas Jordan has signed with (the United States and the European Union) is to use a proxy variable—a binary dummy variable that takes the value of one for all years after the agreements became effective, and the value of zero otherwise.

The rate of growth in output is calculated as the log-difference of annual real GDP values; all other variables are similarly calculated with the exception of policy variables. A sample of annual data collected by the Central Bank of Jordan and the World Bank covering the period of 1980–2010 has been utilized. The estimated equation included the annual growth rate of the following variables: real GDP (ld_rgdp), gross fixed capital formation at constant prices (ld_capf), education level (ld_educ), labour force (ld_labour), and the policy dummy variable (JEUAA).

A necessary first step before turning to the model estimation: all model variables must be checked for unit root to make sure that they are stationary. The result of applying the Augmented Dickey-Fuller (ADF) Unit root test is shown in Table (6.2):

Table 6.2 ADF Unit root test

Variable	Tau- statistic with constant	p-value
ld_rgdp	-3.76682	0.003
ld_capf	-3.36	0.01
ld_labour	-2.54	0.11
ld_educ	-5.4278	0.00

The results of the ADF test show that all variables are statistically significant at 0.05 or better, with an exception for labour, which is significant at only 11 per cent. Hence, the result indicates that all variables used in OLS are stationary and assures non-spurious regression results. All included variables were transformed into log differences of the original variables except the policy variable introduced to capture the TRIPS-Plus effect. The constant was dropped from the estimated equation consistent with the specification of the growth model.

The growth equation was estimated first by ordinary least squares and tested for both autocorrelation and hetroscadasticity. To account for heteroskedasticity the model was re-estimated with correcting for heteroskedasticity and both results are shown in Table 6.3:

Table 6.3 OLS and heteroskedasticity-corrected estimates

	OLS Coefficient	Corrected OLS Coefficient	OLS t-ratio	Corrected OLS t-ratio
ld_labour	0.56714	0.524511	3.6507	10.0016
ld_capf	0.0951643	0.115668	2.1588	7.0840
ld_edu	0.180684	0.166082	1.9471	9.3817
EUFTA	0.0415095	0.0549994	2.5287	10.8891
Adj. R-squared	0.533200	0.816846	**F-statistics** 9.031274	33.08419

The overall model fit is quite good as shown by a relatively high adjusted R-squared (53 per cent in OLS and 82 per cent in the corrected method) and highly significant Fisher F-tests. All estimated coefficients carry the correct expected positive sign in both methods. Although the size of coefficients are close in the two estimation methods, the model and parameter significance are much stronger in the heteroskedasticity corrected method. All other estimated coefficients are statically significant at 5 per cent or better level. The largest coefficient size is for labour (0.52), followed by education or schooling (0.17) and capital (0.12). The dummy variable coefficient is small (0.04) but highly significant at better than 1 per cent. This may be taken as an indicator of limited positive effect of TRIPS-Plus associated with both JUSFTA and JEUAA. However, this last result should be taken cautiously since the proxy variable used may reflect the net impact of trade liberalization policy taken by Jordan rather than solely TRIPS-Plus. In addition, the findings of this study do not exclude the possibility of negative impacts of TRIPS-Plus rules on public health and access to medicines.

VIII. CONCLUSIONS

Economic analysis suggests that developed countries can be expected to seek stronger levels of IPRs compared to developing countries. Therefore, many of the developed countries have used bilateral FTAs to achieve higher levels of IPR protection or what has become known as TRIPS-Plus FTAs, at the expense of developing countries. Furthermore, as developed countries are the main exporters of knowledge-intensive products, their potential gains from stronger IPRs increase in cases of demand for inelastic goods such as medicine. Jordan scored well above average on the 2013 IPRI, achieving a score of 5.8, which ranked 45th out of 130 globally and 7th out of 21 within the MENA region. The performance of Jordan, according to the IPRI, improved steadily up to 2009, stabilized after that until 2011, and worsened thereafter. The regression analysis showed that real economic growth in Jordan is significantly influenced by classical production factors such as, labour, capital, and educational level. Furthermore, contrary to findings of other studies reviewed above, this analysis provides evidence of a positive—although limited—effect of TRIPS-Plus requirements built into both JUSFTA and JEUAA on the real economic growth of Jordan.

BIBLIOGRAPHY

Akaleephan C, Wibulpolprasert S, Sakulbumrungsil R et al., 'Extension of Market Exclusivity and its Impact on the Accessibility to Essential Medicines, and Drug Expense in Thailand: Analysis of the Effect of TRIPs-Plus Proposal' (2009) Health Pol 91(2)

Abbott FM, Cottier T and Gurry F, *International Intellectual Property in an Integrated World Economy* (Aspen Publishers 2007)

Abbott RB, 'Treating the Health Care Crisis: Complementary and Alternative Medicine for PPACA' [2012] 14.1 DePaul J. Health Care L. 14(1)

Abbott FM, Abbott RB, Bannenberg W, et al., 'Regional Assessment of Patent and Related Issues and Access to Medicines: CARICOM (Caribbean Community) member states and the Dominican Republic' (2009) <http://pancap.org/docs/CARICOM_IP_Volume_I_Final_Report.pdf> accessed 27 April 2012

Alavi R, Heng Gee L and Azmi I, 'Does IPRs Protection Influence Economic Growth and FDI Inflows in Malaysia?' [2008] Journal of World Investment and Trade 9(4)

Bader R, Mawajdeh S, Otoum S, et al., 'Medicine Prices, Availability and Affordability in Jordan: Report of a Survey Conducted in 2004 in Amman, Irbid, Zarqa and Karak using the WHO/HAI Price Measurement Methodology' (2007) <www.haiweb.org/medicineprices/surveys/200405JO/survey_report.pdf> accessed 27 April 2012)

Borrell JR, 'Pricing and Patents of HIV/AIDS Drugs in Developing Countries' [2007] Appl Econ 39

Carsten F, 'How Stronger Patent Protection in India Might Affect the Behavior of Transnational Pharmaceutical Industries. Policy Research Working' (2000) The World Bank Development Research Group

Central Bank of Jordan. Statistical database <http://statisticaldb.cbj.gov.jo/index> (2011) accessed 27 April 2012

Correa C, 'Protection of Data Submitted for the Registration of Pharmaceuticals: Implementing the Standards of the TRIPS Agreement' (2002) Geneva: South Centre/WHO

El-Said H and El-Said M, 'TRIPS-Plus Implications for Access to Medicines in Developing Countries: Lessons from Jordan–United States Free Trade Agreement' [2007] J World Intellect Property10(6)

El Said M, 'The Morning After: TRIPS-Plus, FTAs and Wikileaks – Fresh Insights on the Implementation and Enforcement of IP Protection in Developing Countries' [2012] <http://digitalcommons.wcl.american.edu/research/25/>

Falvey L, Foster N and Memedovic O, 'The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence' (2006) UNIDO working paper series.

Han J and Jang K, 'Impact of the Intellectual Property System on Economic Growth' (2008) WIPO -UNU Joint Research Project Country Report – Korea

Jayashree W, 'Pharmaceutical Patents, Prices and Welfare Losses: a Simulation Study of Policy Options for India under the WTO TRIPS Agreement' [2000] World Econ 23(5)

Malpani R, 'All costs, No Benefits: How TRIPS-Plus Intellectual Property Rules in the United States-Jordan FTA Affect Access to Medicines' (2007) Report 102 Oxford: Oxfam International

Médecins Sans Frontières, 'Access to Medicines at Risk across the Globe: What to Watch out for in Free Trade Agreements with the United States' (2004) <http://www.doctorswithoutborders.org/article/access-medicines-risk-across-globe-what-watch-out-free-trade-agreements-united-states> accessed 27 April 2012

Mohammed E, 'The European TRIPS-Plus Model and the Arab World: From Cooperation to Association—A New Era in the Global IPRs Regime' [2007] Liverpool Law Review 28 (1)

Musungu S, Villanueva S and Blasetti R, 'Utilizing TRIPS Flexibilities for Public Health Protection through South-South Regional Frameworks' (2004) Geneva: South Center

Musungu S and Oh C, 'The Use of Flexibilities in TRIPS by Developing Countries: Can they Promote Access to Medicines?' (2006) Geneva: South Center/WHO

Nesheiwat F, 'The Adoption of Intellectual Property Standards Beyond TRIPS – A Misguided Legal and Economic Obsession by Developing Countries?' [2010] Loyola of Los Angeles International and Comparative Law Review 32

Ryan MP and Shanebrook J, 'Establishing Globally Competitive Pharmaceutical and Bio-Medical Technology Industries in Jordan: Assessment of Business Strategies and the Enabling Environment' <http://pdf.usaid.gov/pdf_docs/PNADA539.pdf> accessed 27 April 2012

Verma S. K. and Muralidhar R, 'Impact of the Intellectual Property System on Economic Growth. Fact-Finding Surveys and Analysis in the Asian Region.' (2008) Country Report – India

World Trade Organization, 'Member Information: Jordan and the WTO' (2011) <http://www.wto.org/english/thewto_e/countries_e/jordan_e.htm> accessed 27 April 2012

7 PUBLIC HEALTH AND INTELLECTUAL PROPERTY RIGHTS IN THE PROMOTION OF INNOVATION: A MONGOLIAN PERSPECTIVE

*Dambadarjaa Purevdorj

ABSTRACT

This paper aims to address the issues at the interface of public health and intellectual property rights (IPRs) in the Mongolian innovation landscape. It also looks at innovation and entrepreneur initiatives of Mongolian universities and research institutions in solving public health issues in ways responsive to the market economy. At present, the country is paying considerable attention to the intellectual property (IP) potential of national academic institutions as new IP players who promote creativeness and innovation—the necessities of economic competitiveness.

Keywords: *intellectual property, public health, innovation, entrepreneurship, university-industry collaboration, pharmaceutical patents, commercializing intellectual property rights*

'[T]he TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all.' Paragraph 4, the Doha Declaration on TRIPS and Public Health.[1]

I. INTRODUCTION

Mongolia has succeeded, within a short period of time, in becoming an active member of the World Trade Organization (WTO)[2] and a signatory to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), as well as treaties adopted by the World Intellectual Property Organization (WIPO). This accession is expected to open opportunities for mutually beneficial and equal-standing trading conditions for Mongolia, leading to economic and social progress. Mongolia belongs to a group of developing countries with limited ability to manufacture the needed amount of lifesaving essential medicines to meet its public health needs; therefore, Mongolia must rely heavily on the importation of the necessary medicines from other countries, creating inherent concerns of high-price effects. In fact, this is a problem that not only affects Mongolia but also impacts many other countries throughout the world, including other WTO Member States.

Mongolia's National Constitution (1992)[3] grants an important civil right of social welfare—health protection and medical services—to its entire population. In addition, the principles of national public-health policy[4] promote quality of human life and better social standards as an essential part of a sustainable social and economic-development programme.[5] Therefore, the provision of affordable medicines and medical services to citizens can be regarded as a priority of the Mongolian Government with maintaining the national public-health system as its chief duty.

Making essential medicines and medical services accessible is an expensive social expenditure and many barriers exist due to the nature of international trade and commerce. However, the increasing integration of global trade, commerce, and bilateral and international trade agreements—with the flexibilities confirmed in TRIPS by the Doha Declaration—have greatly eroded these barriers. In the face of globalization, existing national and international IP regimes, and national innovation—particularly regarding the patent system—are expected to play an important role in creating competitive advantages and valuable assets for innovative pharmaceutical business entities within Mongolia.

In recent years, evolving public-health policy debates that shape the landscape for innovation and access to essential medicine and essential human rights have been hot issues in many international forums. Mongolia is no exception. Innovation may lead to the advancement of medical technology that is vital for survival and enhance the quality and effectiveness of many existing medicines. But innovation also brings about the discussion of stronger patent protection. Moreover, personal

* **Mr Dambadarjaa Purevdorj** (Mongolia) Dipl.-Eng, Medical and Microbiological Engineering, Moscow Technological Institute, Moscow, Russia; Master of Bioprocess Engineering, Asian Institute of Technology, Bangkok, Thailand; Ph.D., Biological Sciences and Biotechnology, Kyushu University, Fukuoka, Japan; Postdoctoral Associate, Microbial genomics, Kansai University, Osaka, Japan; Visiting Researcher, Metagenomics, Korean Research Institute of Bioscience and Biotechnology, Daejon, South Korea; LL.M in IP, MIPLC, Munchen, Germany; Professor of Biotechnology and Pharmaceutical Patent Law, Mongolia University of Science and Technology, Ulaanbaatar, Mongolia; Founder, Purevdorj & Partners IP Legal Firm.

[1] Doha Declaration on the TRIPS Agreement and Public Health [2001] (WT/MIN(01)/DEC/2).

[2] WTO, Mongolia and the WTO, available online at: <http://www.wto.org/english/thewto_e/countries_e/mongolia_e.htm> accessed 5 May 2013.

[3] Constitution of Mongolia (MGL) 1996, Ch 2, Article 16-6.

[4] National Public Health Policy (MGL) 2001 <http://www.legalinfo.mn/annex/details/3330?lawid=6389> accessed 20 May 2013.

[5] Government of Mongolia (MGL), 'The Action Plan 2012-2016' <http://www.moj.gov.mn/index.php?option=com_content&view=article&id=204%3Aaction-plan&catid=87%3Acontentnews&Itemid=191> accessed 10 October 2013.

aspirations and infrastructural supports for IP culture can be a crucial factor at different social levels for innovative success. Without IPRs, innovative and creative entrepreneurs, including the academic ones, have little incentive to invest in the development of new and innovative medical technologies that could bring the much needed benefits to adopt, adapt and create innovative health products and services.

At present, Mongolia faces increasingly complex questions when managing IPRs in regard to academic entrepreneurship, that is to say, how the public sector collaborates with private companies to utilize knowledge within university walls in order to generate innovation. Indeed, we are facing the prospect of favouring IPRs over human-capital resources. This evolution has already started, and we seek to know where it leads and how the international and national IPR regimes would safely guide the evolution. This paper aims to address the issues at the interface of public health and IPRs in the innovation landscape of Mongolia. It also looks at current innovative and entrepreneurial initiatives of Mongolian universities and research institutions in collaboration with the business sector to solve public-health issues arising from participation in an increasingly global market economy.

II. PUBLIC HEALTH ISSUES IN MONGOLIA

The National Council of Public Health[6], chaired by the Prime Minister of Mongolia, is responsible for formulating national public-health policy to improve the health of Mongolia's population. In addition, the National Public Health Centre (formerly National Public Health Institute) under the Ministry of Health plays an important role in the country's efforts to promote public health and monitor the implementation of national public health policy. The main objective of the current policy is to ensure access to health services for the entire population by targeting and mobilizing the economic, industrial and academic potential of Mongolia. A number of new legislative efforts addressed public health issues in the country, including health insurance, public health infrastructure development and promotion of innovation and research.

The National Health Law (1998) provides the right of equitable access to health services and the Health Insurance Law (1993) denotes the Ministry of Health as the main government institution responsible for establishing requirements relating to benefit packages and tariffs. The Health Sector Development Programme (1988), financially supported by the Asian Development Bank, has played an important role in public health promotion in Mongolia by focusing on public health financial sustainability, infrastructure development, and available potential resources.

The current insufficiently addressed public-health problems include (1) the rising rates of respiratory and cardiovascular chronic diseases; and (2) the widening longevity gap between rich and poor, leading to an unequal access to essential medicines, medical technologies and health care services. Additionally, onlookers are noting the human health effects of a number of environmental factors—including global warming's impact on desert growth and intensive commercial mining started in the mid-to-late 1990s.[7] Environmental issues raised by commercial mining include air and water pollution and the release of potentially hazardous chemicals into human food chains.

Developing universal, plausible public-health initiatives is challenging for Mongolian public health authorities. Policymakers are only now beginning to rectify the low quality care and pervasive inefficiencies in the existing public-health system—an unsustainable situation that exists despite[8] enormous financial resources spent over the years and administrative changes.

Despite the issues outlined above, governmental policies and action remain critical in fostering an environment in which innovation thrives. Accordingly, policymakers should consult and consider the roles of active agents in the public-health realm: health providers, academic and research institutions, customers, and the private medical sector as a whole.[9]

Key here is the fact that the bilateral and multilateral agreements outlined above do not prevent Member States from taking the necessary measures to protect public health and provide access to essential medicines. Therefore, approaches for effectively applying and magnifying IP-related public-health

[6] Ministry of Health, 'Health Situation, Statistical and Policy Report' *(MGL)* (2005) <http://moh.mn/moh%20db/HealthReports.nsf/0/e9e9375a137a3f9dc82571dc0024404f?OpenDocument> accessed 10 September 2013.

[7] WHO Country Cooperation Strategy for Mongolia 2010-2015 <http://www.un-mongolia.mn/publication/CCS_en.pdf> accessed 20 September 2013.

[8] Health Sector Strategic Master Plan (MGL) 2006-2015 <http://moh.mn/moh%20db/healthreports.nsf/32fe9f3e7452a6f3c8256d1b0013e24e/8904815ac1fe3327c8257066000b22eb/$FILE/Health%20Sector%20Strategic%20Master%20Plan%20Volume1.pdf> accessed 11 June 2013.

[9] A Government Regulation on Innovative Medical Technology (2011) (MGL) <http://www.moh.mn/downloads/draft.pdf> accessed 10 September 2013.

measures can be an effective solution for Mongolia in solving its public-health issues.

III. PROMOTION OF INNOVATION IN MONGOLIA

It is generally accepted that creativeness and innovation are necessary factors for social and economic development. Innovation brings new products, new services and new knowledge that improves life and creates new jobs. Therefore, to speed up social change and turn innovative ideas into cost-effective new businesses, Mongolian universities need to be prepared to push innovation forward.

The international IPR regime has a highly dynamic, evolving background. Since IPRs are granted to an inventor by governments as a territorial right, protection and enforcement of IPRs vary significantly among countries. In addition, the territorial nature of IPRs allows for restrictions on the pharmaceutical market in which protection may be offered. The main objective of the TRIPS Agreement is to bring IP issues of international trade and commerce under common international rules and regulations. TRIPS requires at least a minimum level of IPRs, including pharmaceutical patents, from a WTO Member country. Since becoming a signatory to TRIPS, Mongolia has collaborated with the international community, participated in a range of various international, regional and bilateral trade negotiations, and is set to develop a plan to further create, utilize, manage, and protect IPRs.[10] In addition, the accession to TRIPS has led to the harmonization of national IP legislation, including the IPRs mentioned therein[11], and harmonization with the corresponding institutions dealing with IP matters[12] in Mongolia.

As noted above, the TRIPS Agreement and the flexibilities confirmed by the Doha Declaration provide possible solutions for increasing access to essential medicines: compulsory licensing and parallel imports.[13] The Decision on the Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, adopted by the WTO General Council in 2003, has created conditions under which Member States may issue compulsory licences to produce and export generic versions of patented medicines to countries with limited or nonexistent pharmaceutical manufacturing capacity.[14] This flexibility is seen in Mongolia's patent law.[15]

Compulsory licensing may offer an option to create access to vital essential medicine in developing countries. For the time being, Mongolia has not issued sufficient compulsory licences to meet the needs of the public health sector. Moreover, numerous commercial dealers of pharmaceutical products from Russia, China, Japan, the European Union, and South Korea compete for the demands of the pharmaceutical market, while providing most necessary medicines to the country. In fact, parallel imports may be a more viable solution in Mongolia for increasing access to essential medicines than compulsory licensing. Theoretically, parallel imports allow pharmaceutical companies to profit by differentiating prices in different markets. In the TRIPS Agreement, parallel importation is justified by the exhaustion of IPRs.[16] Yet, finding a cheap source of essential medicine may also present numerous challenges and concerns.

From a national development-policy perspective, the Health Sector Strategic Master Plan 2002-2015, the Science and Technology Master Plan[17] 2007-2020, and the National Innovation Development Programme 2008-2015 highlight the importance of promoting innovation initiatives in national universities and research institutions.[18] These legal documents underscore the commitment of the Mongolian Government to set up a national innovation system based on encouraging creativeness. Moreover, Mongolian development policies were consolidated by the Law on Science and Technology, introduced in 2006. The Law shows the Mongolian Government's interest in building and

[10] Science and Technology Master Plan of Mongolia (MGL) 2007-2020. Goal 3, Improve the legal and institutional system of protecting and utilizing the results of R&D Strategy and 3.1, Improve the system of protecting and utilizing the intellectual property rights, available online at: <http://www.mecs.gov.mn/data/lavlah/master_paln/science/SCIENCE_MP_eng.pdf> accessed 20 May 2013.

[11] WHO, 'Medicines, WTO and the TRIPS Agreement' <http://www.who.int/medicines/areas/policy/wto_trips/en/index.html> accessed 13 May 2013.

[12] Intellectual Property Office of Mongolia (MGL) <http://ipom.mn/> accessed 13 May 2013; Mongolian National Chamber of Commerce and Industry, Mongolian National Arbitration Centre (MGL) <http://en.mongolchamber.mn/index.php/departments-divisions/126-2011-12-21-114136> accessed 21 May 2013.

[13] Declaration on the TRIPS Agreement and Public Health, available online at: <http://www.wto.org/english/tratop_e/trips_e/ta_docs_e/3_wtmin01dec2_e.pdf> accessed 8 June 2013.

[14] Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, available online at: <http://www.wto.org/english/tratop_e/trips_e/ta_docs_e/3_wtl540_e.pdf >accessed 31 May 2013.

[15] Patent Law (MGL) (2006) Article 20. Compulsory Licence: patent rights can be exploited for the purpose in public interests such as health care. ibid.

[16] Articles 6 of the TRIPS Agreement.

[17] Government of Mongolia, 'Science and Technology Master Plan of Mongolia 2007-2020 (MGL)' <http://unesdoc.unesco.org/images/0015/001514/151490e.pdf>accessed 10 June 2013.

[18] Government of Mongolia, 'Millennium Development Goals-Based Comprehensive National Development Strategy of Mongolia' <http://mofa.gov.mn/coordination/images/stories/resource_docs/nds_approved_eng.pdf> accessed 10 June 2013.

strengthening new business and supporting innovative product strategies.

Additionally, important initiatives were implemented for changes in higher educational curricula aimed at providing students with an understanding of different scientific and technical skills. The goal is for university and industry cooperation to form an entrepreneurial partnership, strengthened by IPRs, that will generate a sustainable rise in productivity and higher economic growth with a strong emphasis on social benefits.

In addition, several laws, including the Patent Law and Copyright Law, are expected to be revised in the near future. The Innovation Law of Mongolia (2012) is Bayh-Dole Act-like. According to the Innovation Law, research findings of government-funded research projects can claim IP protection by inventors or legal entities. With the emergence of a knowledge-based economy and Mongolia's increasing integration into global trade and commerce, an increased understanding of the need to enhance IPRs has arisen. The domestic and international changes require constant improvements to medical products and services in the Mongolian health sector, requiring companies to stay innovative, competitive and confident within IP and the entire framework of law. While it may appear as though Mongolia now has a legal basis for innovation, it is important to realize that the Mongolian Innovation Law is not static, but rather, a living legal document that must be continually evaluated and changed to reflect the needs of society.

IV. ACADEMIC ENTREPRENEURS ARE THE NEW PLAYERS OF INTELLECTUAL PROPERTY RIGHTS

Mongolia has pushed national development policies to improve the quality of higher education in the country, in order to make Mongolia more creative and effective in the light of existing international practices and models. It is well known that, if innovation and entrepreneur initiatives in universities are properly encouraged, both research capabilities and the possibility of great financial returns increase. In this regard, it is important to note, again, that since 2007, the Government of Mongolia has implemented a development-oriented science and technology master plan with long-term policies for national economic development.

National universities and research institutions can be new IP players in Mongolian society. Intellectual property rights are worth little for solving public-health issues in the country, unless they are well-defined and legally enforced in a consistent, certain and predictable manner. Therefore, Mongolia needs a corresponding innovation infrastructure that supports entrepreneurial spirit in the country's national research institutions and universities at a socially optimal level.[19] Innovation is a complex research and development process that entails risks associated with many unpredictable financial and social factors.[20] Therefore, the extent of protection provided to IPRs is related to economic performance and crucial for innovation in national universities, research institutions, and the country's business environment. Equally important, Mongolia needs an active customs service and a consistent court-system response to enforcing IPRs.[21]

V. THE CHALLENGES OF AN 'ENTREPRENEUR UNIVERSITY' IN MONGOLIA

The Mongolian University of Science and Technology (MUST) is one of the best universities in Mongolia with a profound academic and technical background in different fields of engineering science and technology. At the core of MUST and central to our future is a commitment to innovation: to create new, important ideas for the well-being of Mongolian society. MUST is the leading public university in the nation, and its emphasis on teaching, research and service has had a transformative effect on higher education. Recently, a Strategic Roadmap that leads to an 'Entrepreneur University' has been developed to accelerate innovation at MUST.[22]

MUST has declared in its university development policy statement to undertake all the necessary measures to become an 'Entrepreneur University'. In order to achieve this goal, there is a strong need to understand how knowledge-transfer processes and their interaction with IPRs, can be managed to ensure that the university-developed innovations are successfully transferred into the Mongolian economy.

MUST has outlined the following in order to realize the goal of becoming an 'Entrepreneur University':

- Setting up and implementing an appropriate IPR policy to attain university IPRs for purposes of commercializing university-developed IP;

[19] Ministry of Education and Science and Technology, 'Action Plan (MGL)' (2007) <http://www.meds.gov.mn/director-content-140-328.mw> accessed 5 October 2013.
[20] Law on Employee's Invention (MGL) 2012.
[21] Law on Specialized IP and Competition Courts 2012.
[22] Mongolia University of Science and Technology, 'Road Map 2012-2012,' <http://www.must.edu.mn/beta3/modules.php?name=Rectorat&select=result&IDD=157> accessed 10 November 2013.

- establishing and organizing a university IP or technology-transfer office that manages university-developed IP by setting up start-up and spin-off companies and negotiating business deals with related industries and companies; and

- evaluating university-owned intangible assets and attracting investors by the means of fair shareholder structure and profit sharing with university IPR holders.

As with any plan pursued in a dynamic environment, modifications in both objectives and action plans may be necessary to ensure that MUST continues to move toward these goals. To that end, it will be essential to make the MUST-2012 roadmap a dynamic document, reflecting modifications to the trajectory of the university as conditions around and within the university change. After all, the MUST-2012 roadmap is only a tool for advancing the university's mission of engineering higher education service and research. Its ultimate value lies in providing a roadmap for the future that will enable MUST to continue to fulfil its quest for excellence in innovation and higher education.

VI. CONCLUSION

Mongolia faces increasingly complex questions and decisions regarding managing IPRs in such a way so as to promote innovation. At present, Mongolia pays considerable attention to universities and research institutions as new IP players, which can establish an IP and entrepreneur culture in the society. These groups can promote technology transfer by licensing IPRs, investing in IPRs, and taking advantage of these burgeoning sources of innovation.

The TRIPS Agreement does not prevent Member States from protecting public health or promoting access to affordable essential medicines. The TRIPS Agreement and the flexibilities confirmed in TRIPS by the Doha Declaration recognize that technology transfer is also a public-health issue; they both also endorse the use of certain provisions of the Agreement in favour of solving public health issues in Member countries.[23] Mongolia belongs to a group of countries with limited ability to manufacture life-saving essential medicines; these countries must rely heavily on the importation of necessary medicines from other countries with inherent concerns of high-price effects. For the time being, Mongolia has not issued sufficient compulsory licences to meet the needs of its public-health sector. Parallel imports may be considered an effective solution in Mongolia for increasing the access to essential medicines, rather than compulsory licensing.

To meet the actual social and economic needs of Mongolia, university-based entrepreneur promotion should be incorporated into curriculum design. Technology commercialization from universities is a relatively new social responsibility for Mongolian universities, including MUST; however, the growing need is clear and the legal framework is in place to achieve this necessary goal.

[23] *Promoting Access to Medical Technologies and Innovation. Interactions between Public Health, Intellectual Property and Trade*. <http://www.wto.org/english/res_e/booksp_e/pamtiwhowipowto web13_e.pdf> accessed 10 September 2013.

8 INTELLECTUAL PROPERTY ISSUES IN PREFERENTIAL TRADE AGREEMENTS: THE OPTIMAL MODEL OF COORDINATION

*Dr Tatiana Isachenko

ABSTRACT

In 2012, Russia successfully completed the WTO accession process, one of the most remarkable events in Russian foreign relations over the past decades. At the same time, during the last three years, Russia has been actively developing another important area of its trade policy – Euro-Asian Economic integration. Currently, one of Russia's main strategic problems is finding the optimal balance between multilateral and regional commitments. The problem becomes even more complicated when we take into consideration that among the three members of the Eurasian Economic Community (EurAzEC), only Russia is a WTO Member, meaning that it has rights and obligations defined by the Working Party Report and Accession Protocol.

The basic document that determines the relevance of the EurAzEC, as a Common Economic Area, to the WTO system is the International Treaty on the Functioning of the Customs Union in the Multilateral Trading System. Nevertheless, intellectual property rights (IPRs) are not completely covered by the document and there is no conformity between EurAzEC members in terms of intellectual property (IP) national legislation provisions and their enforcement. The forthcoming expansion of the EurAzEC would bring new problems that demand very accurate and detailed study of IP policy coordination between members of the regional and preferential trade blocks.

Keywords: intellectual property rights, preferential trade agreements, EurAzEC

In modern economies, IP protection provisions serv as a background and prerequisite for technological innovation and artistic creativity that provide the main competitive advantages of these economies. As mentioned by Zegelman, more and more businesses each day rely on intangible sources such as patent rights, trademarks and copyrights.[1] Intellectual property rights and their proper protection are the basis for the operation of the majority of the world's major industries. For example, according to analysts at PricewaterhouseCoopers (PwC), more than a quarter of the US GNP comes from IP-based activity. The media and entertainment sectors— prime examples of IP-driven industries—were worth USD 1.8 trillion worldwide in 2009 and accounted for 5 per cent of global GDP.[2] According to another source, nearly 76 per cent of Fortune 100's total market capitalization is represented by intangible assets such as patents, copyrights and trademarks.[3]

By 2000, IPRs became an integral, but at the same time independent sphere of international economic relations. According to Richard Baldwin, most technologies are firm-specific, so internationalizing the value and supply chains often involves the transfer of know-how. While technology transfer is an ancient story, ICT facilitated control that reduced the costs and risks of combining developed countries' economy and technologies with developing nations' labour.[4] The simple exchange of scientific and engineering achievements has transformed into deep collaboration and competition between R&D companies and corporate units. Furthermore, for the sake of the management of intangible assets, protection of brands appeared to be one of the key elements of a company's success and market share, as well as geographical indicators and trademarks.

The formation and development of a patent system that achieved great progress during the 20th century was not enough to cover and protect competitive advantages and their fair use. The first key international agreements for the protection of IPRs, such as the Berne Convention for the Protection of Literary and Artistic Works (1886), and the Paris Convention for the Protection of Industrial Property (1883)—as revised in Brussels (1900), Washington (1911), The Hague (1925), London (1934), Lisbon (1958), and Stockholm (1967), and in later venues—are not completely relevant to the current stage of development and do not fully provide the necessary degree of protection to IPR holders. These international conventions do not provide means to

* **Dr Tatiana M. Isachenko** (Russia) is Associate Professor in the Department of International Economic Relations at the Moscow State Institute of International Relations (MGIMO University). She holds a Ph.D in International Economics from the Russian Academy of Sciences and a Doctoral Degree in the same field from MGIMO University. Her areas of expertise and teaching are Trade Policy, Regional and Preferential Trade Agreements, and the Multilateral Trading System. She also works as an expert for several working groups and committees on Russian accession and participation in the WTO. She has participated in a trade policy course at the Harvard Kennedy School of Government (United States) and Carlton University (Canada), and conducted research at the World Bank Institute and European Commission.

[1] Julian Zegelman (2009) Researching Intellectual Property Law in the Russian Federation (2009). WIPO <http://www.llrx.com/node/687/print>

[2] Global Entertainment and Media Outlook 2010-2015. Events and Trends.PWC. <http://www.pwc.tw/en_TW/tw/.../events.../e250.pdf>

[3] Subash K Bijlani (2003) 'Developing an IP Strategy and Integrating IP in Your Business Plans. Training Course for Asia and The Pacific Region on Doing Business with Intellectual Property <http://www.wipo.int/export/sites/www/sme/en/activities/meetings/singapore_03/singapore_bijlani_9.pdf>

[4] Richard Baldwin, Global Supply Chains: Why They Emerged, Why They Matter, and Where They Are going. (CTEI Working Papers, Geneva Graduate Institute. CTEI-2012-13).

protect IP assets against possible misappropriation and unlawful uses either. However, all these 'gaps' are successfully filled by the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) that became an integral part of the Multilateral Trading System (MTS).

As mentioned before, the development of global supply chains (GSC) and global value chains (GVC) increased the urgency of adequate protection of IP and marked out new challenges in this area. Analysing recent studies by R. Baldwin and research by J. Gonzales-Lopes on global value chains and their influence on world trade[5], one could make a justified conclusion that the level of IP development is a key factor which determines what a country will produce at what level of technological sophistication. Under the GSC and the GVC, cross-border transfer of know-how and IP, as well as more tacit forms such as managerial and marketing know-how, together with consideration for the appropriate level of their protection, became the decisive factors for a country's integration into the world economy.

Another factor that influences the urgency and importance of the IPR protection system is the proliferation of regional trade agreements (RTAs) and preferential trade agreements (PTAs). The proliferation of regionalism continues to evoke challenges for international trade and its regulation system. Analysing the development of regional cooperation in the last decade allows us to make some conclusions:

- There is a strong shift from non-reciprocal agreements to reciprocal ones, and the industrial countries—mainly those of the European Union—have turned to RTAs on the basis of reciprocity of preferences in trade, even with developing partners;

- the majority of the FTAs concluded during the past decade (for example, European Union-MERCOSUR, European Union-Thailand, European Union-South Korea, United States-Singapore etc.) and under negotiation (for example, European Union-United States FTA, TPP) can hardly be called 'regional,' but are rather 'cross-regional,' since they establish free trade between countries of different regions and continents.

This allows us to call all these agreements 'preferential,' having in mind that the scope and coverage of preferences go far beyond tariff instruments and sometimes involve more sophisticated issues, including technology and knowledge transfer. The intensive development of world knowledge markets, as influenced by various factors, creates a background for the new developments in trade policy. These trade developments provoke new debates about how the transfer of IP in PTAs should be organized and how IP rights should be protected if they are country and/or company specific.

Provisions of adequate IPR protection have been a condition for integrating Russia into the international trading system. For that purpose, the improvement of the national system of legal protection and transfer of intellectual property must be supported and updated in compliance with multilateral, national and regional rules.

During the past ten years, Russia was rapidly catching up with countries in terms of economic growth. Furthermore, Russian enterprises and the Russian State have been in desperate need of investment in advanced technologies for their further development. That means that the country could and should pay royalties for the IP products they wish to use. After 1991, though improvements in IP laws have been made corresponding to the country's political evolution, the most serious challenge remains the enforcement of IPRs.

In 2012, Russia successfully completed the WTO accession process, which was considered to be a remarkable achievement in Russian foreign relations. During the accession process, IPRs were one of the major concerns for WTO members of the Russian Accession Working Party— namely, the United States and the European Union. The starting point for negotiations was an issue that the legal provisions for the enforcement of IPRs in Russia do not precisely fit into the framework of the TRIPS Agreement. In the Working Party Report, these issues are covered by paragraphs 1202-1354.

The first checklist on TRIPS enforcement measures was circulated among Working Party members in 2007. Since that time, it has been revised several times, and the final statement was presented in 2011 in the document 'Membership of International Intellectual Property Conventions and of Regional or Bilateral Agreements.'[6] The part of the Working

[5] Richard Baldwin and Javier Lopez-Gonzalez, 'Supply-Chain Trade: A Portrait of Global Patterns and Several Testable Hypotheses' (NBER Working Papers' 2013).

[6] 'List of Treaties Concerning Intellectual Property Issues to which the Russian Federation Is a Party' (as of 4 October 2007) 7 November 2007, JOB(07)/171; Membership of International

Party Reports that deals with the trade-related IP regime is one of the most detailed sections of the report and contains all the necessary provisions such as:

- General provisions (outlook of Russian legislation on IPRs, including essential provisions on enforcement of thereof—in particular, remedies that are available through civil actions);
- participation in international treaties;
- standards concerning the availability, scope and use of IPRs; and
- enforcement (both judicial and administrative procedures).

The latest version of the commitments considered that during the last three years Russia has been actively developing another important area of its trade policy – Euro-Asian Economic integration. From the very beginning of the Euro-Asian integration process, IP issues have been identified as important aspects of the integration of development. However, as in any field, the work should be based on experience of countries that have attained a similar stage of development. Let us take, for example, the situation with border measures for IPR enforcement.

The section of the Working Party report that deals with border measures includes all provisions which have to be realized under conditions prevalent in the Customs Union (CU). Since 1 July 2010, the Russian Federation has applied border measures pursuant to Chapter 46 of the CU Customs Code. Several adjustments were made accordingly and consequently, consistent with the procedures set out in Chapter 46, the customs authorities of the Russian Federation (the Federal Customs Service of the Russian Federation (FCS)) were authorized to take action to protect IPRs, as prescribed in a customs register maintained by the FCS and in the unified customs register of IPRs of the CU Parties. However, under the CU Customs Code, only goods containing IP were included in the customs register of the Russian Federation and the unified CU register of IP.

At the same time, some members of the Working Party expressed a concern that, considering the risk posed by the growing number of IPR infringements other than copyright and trademark, the coverage of protection should be extended to other types thereof such as infringements of designs, patents and patented plant varieties. In spite of the fact that Article 51 of the WTO TRIPS Agreement did not require application of border measures in respect to enforcement of IPRs other than copyright and trademarks, more should therefore be done to improve the regional rules and bring them into compliance with international regimes. This inevitably leads to the conclusion that the experience of countries that have attained a similar stage of development and integration should be studied properly. Currently, however, there are a variety of draft documents in all spheres of IP protection, which causes further confusion; hence, it is not completely clear whether there is any optimal well-prepared model of coordination.

Empirical evidence provides examples of IPR regulation under two types of agreements. One example concerns IP provisions in European Union FTAs and the implications for developing countries. The recent paper by Maximiliano Santa Cruz addresses the scope, content and potential impact of proposed IP provisions in Economic Partnership Agreements (EPAs) with the European Union.[7] Another interesting study by Raymundo Valdés and Runyowa Tavengwa, 'Intellectual Property Provisions in Regional Trade Agreements', documents the number of RTAs in which IP protection provisions are included.[8]

However, there is another issue that has not received detailed analysis yet, namely, that IPR protection is not in the FTA frame, but in the integration block. But all these studies do not examine the situation where current members of the integration block and/or RTA/PTA were once part of a single economic and legal system, and where therefore current legislation and practice are based on common principles as variously interpreted over the past 20 years. The problem becomes further complicated if we take into account that among three members of the economic block, only Russia is a WTO Member, which means that Russia has rights and obligations defined by the Working Party report and Accession Protocol. Therefore, at the current stage of development, the most urgent problem of Russian economic strategy is to find the optimal balance between multilateral and regional commitments.

The 'designers' of Euro-Asian integration argued that the exemplar for block creation is the European

Intellectual Property Conventions and of Regional or Bilateral Agreements, 17 January 2011, JOB/ACC/16.

[7] Maximiliano Santa Cruz S. 'Intellectual Property Provisions in European Union Trade Agreements (ICTSD Intellectual Property and Sustainable Development Series'. (ICTSD Programme on IPRs and Sustainable Development ICTSD Issue Paper).

[8] Raymundo Valdés and Runyowa Tavengwa, 'Intellectual Property Provisions in Regional Trade Agreements' (WTO 2012).

Union. In order to understand the problem, let us then turn to the EU experience. The fragmentation of IPRs in EU member countries had serious implications for growth, job creation and competitiveness. Licensing transactions have always been impaired by high costs, complexity of administrative procedures, and legal uncertainty for the creators, users, and consumers of IP. Innovative SMEs face the most serious implications derived from the lack of IP strategy coordination and unification.

The most updated information on the European Union's IP policy coordination was received from communication with the Commission of the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, which was about 'A Single Market for Intellectual Property Rights.'[9] According to that information, the IP strategy aims at modern, integrated European IPR regimes that will make major contributions to growth, sustainable job creation, and competitiveness of the economy. Those are key objectives of the EU 2020 agenda and the Annual Growth Survey which are considered essential for sustaining the European Union's recovery from economic and financial crisis.

From the EU experience, we notice that they are principally focused on the creation of the European patent system, since patent protection is essential for many core industries, including life and citizens protection. Another important issue is brand protection, because 'the protection of brand equity stimulates investment in the quality of products and services by helping the customer identify the relevant producer of goods or services, particularly in sectors which rely heavily on brands and customers' brand loyalty.'[10] However, the enforcement of IPRs even within Europe still remains imperfect. The reform of the patent system will require intensive work. Experts believe that the current European patent system is complex, fragmented and costly: obtaining a European patent effective in only 13 member states can cost up to ten times more than a US patent. For this very reason, work is underway in the European Union to create unitary patent protection for all member states. [11]

The effectiveness of the EU IP system involves a lot of efforts towards the unification of the national trademark registration in EU member states. The system has now been harmonized for almost 20 years, and the Community trademark was established 15 years ago. In the near future, special attention will be paid to the creation of a comprehensive framework for copyright in the digital single market and European copyright governance and management. An important outcome from the study of EU experience is the implementation of the Berne 'Three-Step Test'.

Currently, a two-level system of protection for IPRs exists in the EurAzEC: protection is provided for IP identified by: (1) customs registers of state-members of the Customs Union (national registries of Belarus, Kazakhstan and the Russian Federation); and (2) the unified customs register of IPRs of state-members of the Customs Union. Measures for the protection of IPRs apply to goods containing objects of copyright and related rights and to trademarks and services marks, which are included in the unified customs register of IP.

As far as the specific features of the CU IP area are concerned, they could be divided into two blocks. The first block involves problems of a practical nature, especially counterfeit products; the second block encompasses problems related to the harmonization of legislation. The largest complexities arise in connection with the regulation of so-called 'Soviet' brands. Besides, the issue of IP protection has 'internal' and 'external' aspects.

Among 'internal' aspects, we could emphasize the following. The creation of the Customs Union between Russia, Belarus and Kazakhstan has provoked a lot of debate about the IP rights protection system. With the opening of borders these three countries are faced with such important problems as the 'duplication' of trademarks, the history of which has its roots back in the USSR period. Besides, in the Soviet Union there were only about 1,500 trademarks; for other cases, it was more a question of technology or recipe. As a result, there are situations when in different countries similar trademarks were registered. Customs could not complete customs clearance for a product or require consent from the owner of rights in their country.

[9] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, 'A Single Market for Intellectual Property Rights,' Brussels, 24.5.2011COM(2011) 287 final.

[10] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, 'A Single Market for Intellectual Property Rights' Brussels, 24.5.2011COM(2011) 287 final.

[11] Council Decision 2011/167/EU of 10 March 2011 authorizing enhanced cooperation in the area of the creation of unitary patent protection, OJ L 76, 22.3.2011, p.53.

After the creation of the CU and the abolition of customs clearance a new problem appeared: the state continues to provide legal protection for their trademarks. However, products bearing the same trademark originating from a neighbor country still appear on the markets. Above all, this situation occurred with food and tobacco products. There has been consequent competition between 'Soviet brands.' It is therefore critical to introduce the concept of one trademark in a single economic space. The improvement of the situation could benefit significantly from the participation of Russia in the Madrid and Lisbon Unions.

To solve these problems, the Eurasian Economic Commission, as the main supranational CU regulatory body, has adopted several documents and created the Advisory Committee on Intellectual Property. The Advisory Committee was created by the Board of the Eurasian Economic Commission and is the main institution responsible for the elaboration of proposals on the safety and protection of IP, as well as being responsible for consultations with the state-members of the CU and the EurAzEC Common Economic Area. The activity of the Committee is aimed at the harmonization and improvement of legislation on protection and enforcement of IPRs, including the definition of the principle of exhaustion of exclusive rights to trademarks, reconciling the use of identical trademarks—including trademarks registered by different owners in the former USSR—and coordination of the work of organizations for the collective management of copyright and related rights. EurAzEC members also agreed to draft a unified customs register of IP objects.

Another problem concerns the Soviet origins of the patent system creation. During the Soviet period, the country developed its industrial base and registered a significant number of patents.

Among CU members, Russia has been the main producer and borne the main responsibility for the regional (CU) IPR protection system in its role and status as the most interested country. Besides, taking into consideration the scale of the Russian market and Russian WTO membership, it is clear that the main focus must be concentrated on Russian legislation and its possible application in the regional rules and practices.

The 'external' aspects are concentrated on two issues: (1) compliance of internal rules with WTO principles and commitments; and (2) protection of foreign IP rights. The basic document that determines the relevance of the EurAzEC as a Common Economic Area for the WTO system is the International Treaty on the Functioning of the Customs Union in the Multilateral Trading System. Nevertheless, IPRs are not completely covered by this document and there is no conformity between EurAzEC members in terms of IP national legislation provisions and their enforcement. The forthcoming expansion of the EurAzEC will bring new problems which will demand very accurate and detailed study of IP policy coordination between members of the regional and preferential trade blocks.

Thus another set of problems deals with protection of foreign IP on the CU market. All the CU members became USSR successor-states in terms of obligations under international IP conventions. There are still areas, however, that can be clarified and improved. For example, the activity of foreign investors could be greatly facilitated by the introduction of a unified customs register and unification of national rules. Today, to have protection throughout CU territory, a company must be registered in the patent offices of the three countries and then apply to their customs registers—that is, six separate actions must be completed.

Another relatively new issue arises from the so-called 'parallel import'. Currently there is a regional principle of exhaustion of rights: that is, what has entered into circulation on the territory of one of the three countries could be freely sold on the regional market. Take the case of Mercedes-Benz, for example; currently, in order to introduce its products, permission is required from the CU. If parallel imports are allowed, no permission is required. On the one hand, it means more competition and may result in a decrease in prices. On the other, there is a risk of decreasing quality. Besides, the prohibition of parallel imports provides more protection for foreign investors.

One example is the BMW plant in Kaliningrad. The German company would like its products to be protected from imported goods from foreign countries bearing a similar brand. In this case, the European approach could be applied: there is indeed the regional principle of exhaustion of rights, but for some non-high-tech consumer goods, parallel imports are allowed. Custom Union members agreed to create a working group to discuss this issue and find an appropriate solution.

The future of the CU IP protection system depends significantly on the realization of the Agreement on Common Regulatory Principles for the Protection and Enforcement of Intellectual Property, signed in 2010. As stipulated in the Agreement, it is aimed at the unification of national legislation on IPR protection and enforcement (Article 1) of the legislation and the coordination of the activity in

WIPO and other international organizations and conventions (Articles 2 and 3).

The above analysis provides evidence that a lot still should be done in order to make the system effective, and that best world practices should be analysed and applied with a clear understanding of nation-specific, institutional and organizational adjustments. The creation of a Euro-Asian Common Economic Space and deeper integration between countries would provide a more solid basis for that purpose. In case of the further expansion of the regional block, some new problems, mainly in terms of control and coordination, may arise. We must not forget that at the heart of everything is knowledge. Thus, the problem of deeper understanding and expertise in the field of IP regulation remains to be resolved in all CU countries. Since the beginning of the 1990s, Russia has evolved an excellent school for education and training of managers, taking into account existing international experience and the specifics of Russian enterprises. At the same time, Russian education is lacking experts for government and business in the development and implementation of trade policies, and also WTO and WIPO regulation. It means that special training and educational programmes should be developed in the region.

BIBLIOGRAPHY

Baldwin R, (2012) 'Global Supply Chains: Why They Emerged, Why They Matter, and Where They Are going'. CTEI Working Papers, Geneva Graduate Institute. CTEI-2012-13

Baldwin R and Lopez-Gonzalez J, 'Supply-Chain Trade: A Portrait of Global Patterns and Several Testable Hypotheses,' NBER Working Papers' (2013)

Bijlani SK, Developing an IP Strategy and Integrating IP in Your Business Plans. Training course for Asia and The Pacific Region On Doing Business with Intellectual Property.(IP) (2003) <http://www.wipo.int/export/sites/www/sme/en/activities/meetings/singapore_03/singapore_bijlani_9.pdf>

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions 'A Single Market for Intellectual Property Rights' Brussels, 24.5.2011COM(2011) 287 final

Council Decision 2011/167/EU of 10 March 2011 authorizing enhanced cooperation in the area of the creation of unitary patent protection, OJ L 76, 22.3.2011, p. 53.

Global Entertainment and Media Outlook 2010-2015. Events and Trends. PWC <http://www.pwc.tw/en_TW/tw/.../events.../e250.pdf>

List of Treaties Concerning Intellectual Property Issues to which the Russian Federation is a Party (as of 4 October 2007) 7 November 2007, JOB(07)/171; Membership of International Intellectual Property Conventions and of Regional or Bilateral Agreements, 17 January 2011, JOB/ACC/16

Researching Intellectual Property Law in the Russian Federation (2009) by Julian Zegelman, WIPO, (Published 14 February 2009 <http://www.llrx.com/node/687/print>

Santa Cruz MS, 'Intellectual Property Provisions in European Union Trade Agreements. ICTSD Intellectual Property and Sustainable Development

Series' (2007) ICTSD Programme on IPRs and Sustainable Development ICTSD Issue Paper.

Valdés R and Tavengwa R, 'Intellectual Property Provisions in Regional Trade Agreements', WTO (2012)

Кирильченко А.Противодействие параллельному импорту.// Корпоративный юрист, январь 2012 г. Режим доступа: <http://www.gblplaw.ru/news/articles/70795/>

<http://tsouz.ru/db/ip/Pages/default.aspx>

9 INTELLECTUAL PROPERTY, COMPETITION LAW AND ACCESS TO PHARMACEUTICALS: THE RELEVANCE OF A 'MARKET APPROACH' TO THE EXERCISE OF INTELLECTUAL PROPERTY RIGHTS

*Dr Mor Bakhoum

ABSTRACT

This contribution wrestles with an intensely debated topic: intellectual property (IP) and its interface with access to pharmaceuticals.[1] Since the entry into force of the TRIPS Agreement, advocates for enhanced access to medicine have been pushing for a reading of TRIPS that focuses more on the users of IP-embodied product needs to have improved access to pharmaceuticals. In addition to the 'built-in' flexibilities within the IP system such as the compulsory licensing mechanism, efforts have been made to support a reading of the agreement that enhances access to pharmaceuticals, especially in developing countries. The developments in the framework of Doha, with the Doha Declaration on Intellectual Property and Public Health[2] and the subsequent Article 31*bis* that allows Member States to issue licences for export, are in line with that dynamic. Despite those efforts, access to pharmaceuticals is still an issue.

In addition, and complementary to the access mechanisms within the IP system, competition law, as a market regulatory tool, is another legal instrument with huge potential to correct abuses of intellectual property rights (IPRs). Competition law thereby fosters access to pharmaceuticals. Of course, the TRIPS Agreement recognizes the relevance of competition law as a balancing tool to the exercise of IPRs and allows its Members to use their competition laws as a correcting tool against potential abuses of IPRs.[3] However, in the absence of a binding agreement, the effectiveness of this approach depends on the strength of each country's competition institutions. The prospects of an international agreement on competition that potentially addresses IP-related abuses are at best uncertain.[4]

I. INTRODUCTION

Two important developments with regard to IP and access to pharmaceuticals have taken place over the past years. First, in the United States and the European Union, competition authorities are taking a more active stand by using competition law as a regulatory instrument to foster access to pharmaceuticals. The EU Commission's 2009 Sector Inquiry Report[5] showcases various strategies patent owners use to limit competition, which has had the effect of hindering access to pharmaceuticals. Those strategies include reverse payment settlements between originators' companies and generics manufacturers. These developments demonstrate that in the United States and the European Union, a market-oriented approach that subjects the owners of IPRs to the rules of an open and competitive market seems to be more relevant to the issue of access to pharmaceuticals. It is well accepted that IP does not grant monopoly power. It only provides 'market power'[6] that should be exercised in accordance with competition law rules. The second relevant development is the spread of competition laws, especially in developing jurisdictions.[7] This placed at the forefront of the debate the issue of how developing jurisdictions approach the delicate interface between IPRs and competition law.

---

* **Dr Mor Bakhoum, LL.M** ((Senegal) is a senior research fellow at the Max Planck Institute for Innovation and Competition in Munich, Germany. He is also a faculty member at the Munich Intellectual Property Law Centre (MIPLC). In addition, he lectures as part of the Master II Programme jointly organized by WIPO, OAPI and the University of Yaoundé II in Cameroon. His research and teaching focus on Competition Law, with an emphasis on developing and emerging economies. He holds a master's degree in Economic and Business Law from the University of Saint-Louis (Senegal), which he completed top of the class with honors, and a LL M in European and International Economic Law from the University of Lausanne (Switzerland), as well as a Certificate in International Comparative Arbitration (2003). In 2006, he successfully defended his Ph.D at the University of Lausanne with the distinction *summa cum laude*. He was awarded the 2008 prize of the city of Lausanne for the best Ph.D in human sciences. Dr Mor Bakhoum also holds an LL M. in International Intellectual Property Law from the Chicago-Kent College of Law, which he completed in 2008 with high honors and ranked top of the class. He received the Cali award for the best anti-trust paper as well as the Cali award for the best LL M. thesis. While at Chicago-Kent, he worked as a research assistant.

[1] Mor Bakhoum, 'TRIPS, Patent Rights and Right to Health: "Price" or "Prize" for Better Access to Medicine?' Max Planck Institute for Intellectual Property, Competition and Tax Law Research Paper Series No. 10-07, available at: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1619215&download=yes>

[2] ibid, for discussions on the developments in the framework of Doha.

[3] In particular Article 40 of the TRIPS Agreement., Article 8(2), Article 31 TRIPS competition related provisions

[4] For discussion, see, Josef Drexl, 'International Competition Policy after Cancún: Placing a Singapore Issue on the WTO Development Agenda' World Competition 27 (3), 419-457, 2004.

[5] Commission, Pharmaceutical Sector Inquiry Final Report, Part I <http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/staff_working_paper_part1.pdf> see also Communication from the Commission Executive Summary of the Pharmaceutical Sector Inquiry Report , available at: <http://ec.europa.eu/competition/sectors/pharmaceuticals/inquiry/communication_en.pdf>. See for comments, Josef Drexl, 'AstraZeneca and the EU Sector Inquiry: When Do Patent Filings Violate Competition Law?', Max Planck Institute for Intellectual Property, Competition and Tax Law Research Paper Series No. 12-02.

[6] Josef Drexl, 'The Relationship Between the Legal Exclusivity and Economic Market Power: Links and Limits, in *Intellectual Property, Market Power and the Public Interest* (Inge Govaere and Hanns Ullrich eds 2008) 16–18

[7] In sub-Saharan Africa an increased number of countries have adopted competition law over the last 20 years. For an overview, See ACF. Also, Singh, Competition and Competition Policy in Emerging Markets, G-24 Discussion Paper No. 18 (2002), p. 6; *Mehta/Agarwal/Singh*, Politics Trumps Economics, 2007, p. I; Stewart/Clarke/Joekes, Competition Law in Action, 2007, p. iv.

This paper discusses the interface between IP, competition law and access to pharmaceuticals, with a focus on the situation in sub-Saharan Africa. The focus of this contribution is not on TRIPS flexibilities *stricto sensu*. It looks at the potential of using competition law as a market regulatory instrument, in order to provide improved access to pharmaceuticals, especially in developing countries. Although competition laws have been enacted in many jurisdictions, case-law dealing with these laws remains very scarce. Only in South Africa have cases been decided that are relevant to the issue of access to pharmaceuticals. COMESA´s Competition Commission has recently approved a merger without imposing conditions that involved two pharmaceuticals companies. Those cases will be discussed, in order to show the potential of using competition law as an access tool following the developments in the European Union.

When it comes to pharmaceuticals, the debate often focuses on the regulations (balancing tool) embodied in the IP system such as compulsory licensing. This paper argues that competition law as a market regulatory tool is a more relevant instrument that should be used to supplement the flexibilities of the IP system. This is evidenced by the EU approach to the Sector Inquiry Report and the subsequent cases, which have had a direct impact on access to pharmaceuticals.

This paper is divided as follows: section II provides general remarks on the 'market-oriented approach' to access to pharmaceuticals. Section III briefly discusses TRIPS-related flexibilities with a focus on competition-related provisions. Their limits as flexibility tools will be highlighted. Section IV is devoted to the developments in sub-Saharan Africa with two cases in South Africa and a merger case cleared by the COMESA Competition Commission. Section V concludes by showcasing the relevance of competition law to accessing pharmaceuticals, with a special emphasis on the perspective of developing countries.

II. A MARKET-ORIENTED APPROACH TO ACCESS TO PHARMACEUTICALS

The application of competition law to IP-related restrictions of competition seems to be well established. Intellectual property owners are not immune from competition law liability when exercising their rights in the marketplace. The IP system rewards IP owners for their innovation or creativity with the possibility to enter the market.[8] Markets are not without rules. Competition law provides the rules for the marketing of IP rights. Even if IP protection provides IP owners with the right to enter the market, IP owners are required to exercise their rights while respecting the need to keep the market open and competitive. Competition law intervention is going as far as questioning the mere acquisition of an IPR as being potentially anti-competitive. From an institutional point of view, it has been argued that competition law intervention is only acceptable when IP owners exercise their rights in the market. However, some commentators go as far as arguing that, in the framework of discussions triggered by the *AstraZeneca*[9] judgment of the General Court, 'patent law does not insulate filing strategies from competition-law liability'.[10] This far-reaching conclusion showcases how competition authorities are becoming more and more active in monitoring the behaviors of pharmaceutical companies. In the absence of sound competition-law control, pharmaceutical companies could easily undermine certain flexibilities within the IP system, such as compulsory licensing, limited durations of patent protection, and parallel trade. For instance, patent protection gives a limited protection of 20 years to a patent owner, which allows for price-based competition by generic producers once the term of the patent has expired. If originators and generic companies settle, by agreement, for the generic company to delay its entry into the market, there will be a de facto continuation of a monopoly situation with the consequence of monopoly prices paid by the consumers. Given their detrimental effect on access to affordable pharmaceuticals, in the United States and the European Union, the issue of pay-for-delay may constitute a competition law offence.

In addition to the pay-for-delays agreement, the 2009 EU Commission Sector Inquiry Report has identified various strategies that pharmaceutical companies use that have the effect of limiting competition and charging monopoly prices. Amongst such practices are patent filing strategies[11] that intend to delay or block the entry of generic products into the market. Such strategies may be a legitimate exercise and use of the patent system. The question therefore arises as to 'under which

[8] Josef Drexl, 'The Relationship Between the Legal Exclusivity and Economic Market Power: Links and Limits', in *Intellectual Property, Market Power and the Public Interest* 16–18 (Inge Govaere and Hanns Ullrich eds. 2008).
[9] Case T-321/05 *AstraZeneca v. Commission* [2010] ECR II-0000.
[10] Josef Drexl, 'AstraZeneca and the EU Sector Inquiry: When do Patent Filings Violate Competition Law?', Max Planck Institute for Intellectual Property, Competition and Tax Law Research Paper Series No. 12-02.
[11] ibid, at page 17 *et seq*.

conditions such patent filings are no longer to be considered legitimate and enter the ambit of competition law liability'.[12] Filing strategies that target actual or potential competing originators' companies have also been uncovered by the Commission's report.

The increased focus on competition law as a market regulatory tool in order to identify and sanction anti-competitive practices initiated by pharmaceutical companies reveals the potential of the competition law dimension when dealing with IP-related matters. The bottom line of all the developments taking place in the European Union with regard to the behaviors of pharmaceutical companies is that, when it comes to access to medicine, there is a shift from an IP-centered approach (with a mere focus on IP flexibilities) to a 'market-oriented approach' that focuses on opening the competition channels and preventing foreclosure in order to allow improved access to pharmaceuticals.

The developments taking place in the European Union are relevant from an international perspective. Given the fact that sub-Saharan African countries, and IP-importing countries in general, rely heavily on the importation of pharmaceuticals, recent developments in the European Union and the United States could have a substantial impact on public health from an international perspective. Reliance on generic competition is part of the strategies that aim at improving access to pharmaceuticals in developing countries. Since patent settlement strategies aim at delaying the entry of generic substitutes to the patented products market, markets in which competition authorities are not well suited to address such strategies will have to pay monopolistic prices even after the expiration of the patent.[13] For instance, if two pharmaceutical companies operating in the European Union and doing business in sub-Saharan Africa agree to settle in order to avoid competition by generics, it is very likely that competition authorities would not address such practices. Given the effect doctrine, such practices would not be prohibited for the absence of an effect on the EU market. This raises the issue of international cooperation in competition law enforcement.

The focus when discussing those issues is on the EU or the US markets, which reflects the territorial nature of competition law enforcement. However, such practices have international ramifications and could potentially impact global public health, especially for medicines distributed across markets.

This hypothesis showcases how related the goals of competition law and the goals of IP law are. Anti-competitive practices, if not addressed, could undermine the built-in flexibilities within the IP system. From the perspective of developing countries, it is important to have a broad view when dealing with policy issues such as access to pharmaceuticals. A narrow focus on the IP-related mechanisms is not enough.

The systemic approach of the use of competition law as a market regulatory mechanism, which goes beyond the technology transfer approach of the TRIPS competition-related provisions[14], may turn out to be an effective tool for fighting anti-competitive practices in the pharmaceutical industry. Competition law, as a public policy instrument, offers diversified intervention tools that go beyond the mere exercise of the right. Merger control, for instance, offers the possibility to block or to authorize with conditions an operation that could potentially limit competition or research and development efforts. Merger control has the potential to oversee the functioning of the market for pharmaceuticals and to prevent operations that could lead to market foreclosure. As we shall see, the newly functional COMESA Competition Commission has recently authorized without conditions a merger involving two pharmaceutical companies. Competition law vests public authorities (a Competition Commission) with the power to initiate proceedings and to impose fines in case of cartels or abuse of dominance that involve IPRs. Individuals do not necessarily trigger enforcement initiatives, although private enforcement is becoming more and more important.

If competition law has the potential to curve anti-competitive practices initiated by pharmaceutical companies, how does TRIPS address the issue? We are now turning to a brief discussion of the issue.

III. TRIPS AND THE RIGHT TO USE COMPETITION LAW AS A FLEXIBILITY TOOL: POTENTIAL AND LIMITS

TRIPS does not create a binding international framework that obliges signatory members to apply competition law to IP-related restrictions of competition. From a TRIPS perspective, using competition law as a balancing tool to the exercise of IPRs is only optional. TRIPS competition-related

[12] ibid

[13] See generally the structural disadvantage of developing countries with regard to abuse of dominant position in the IP field, Joseph Drexl, 'Intellectual Property and Competition: Sketching a Competition-Oriented Reform of TRIPS', in Festskrift till Marianne Levin, 2008, p. 261, 267.

[14] Joseph Drexl, 'Intellectual Property and Competition: Sketching a Competition-Oriented Reform of TRIPS', in Festskrift till Marianne Levin, 2008, p. 261.

provisions give a leeway to signatory Members to define their own policies when it comes to applying their competition laws to IP-related restrictions. Therefore, the effectiveness of competition law as a balancing tool depends on the enforcement institutions of each Member's competition law. This situation creates an unbalance from an international perspective. On the one hand, there is a harmonization, from the top, of the protection of IP. On the other hand, the use of competition law is 'deregulated' and left to the choice of each Member to define its own policy.

The development of competition laws in developing countries is a positive sign of the use of competition law as a balancing tool. However, the treatment of IP in competition legislation in developing countries is very diverse. Whereas some countries apply competition law to IP-related restrictions, others go as far as exempting IP from the application of competition law. This shows that developed jurisdictions that have strong competition law institutions and sophisticated enforcement records are more likely to be able to use competition law as a balancing tool, as permitted by the TRIPS Agreement.

But signs of positive developments in sub-Saharan Africa, especially in South Africa, have been noticed.

The limited remedies provided by the IP system justify a broader intervention of competition law whose scope and objective are more general than the IP system *stricto sensu*.

Competition law is a public policy tool that can be triggered by public authorities when the functioning of the market is affected by anti-competitive practices, even those resulting from the exercise of IPRs. Public authorities enforce remedies under competition law issued after juridical adjudication, whereas private parties enforce some IP-related flexibilities.

IV. DEVELOPMENTS IN SUB-SAHARAN AFRICA RELATED TO INTELLECTUAL PROPERTY, COMPETITION LAW AND PUBLIC HEALTH

This part discusses the developments in sub-Saharan Africa with regard to the issue of access to pharmaceuticals, with an emphasis on how competition authorities have dealt with the issue so far. Although an unprecedented development has taken place over the past years in competition law in sub-Saharan Africa, the creation and effective functioning of competition authorities are still lagging behind.[15] Efforts have been made at the national, as well as at the regional level, to enact and enforce sound competition laws. COMESA, WAEMU, SADC and possibly ECOWAS are regional integration groups that deal with competition matters.[16] At the national level, South Africa is by far the most advanced country with sound competition institutions and enforcement authorities. Other countries such as Mauritius, Zambia and Seychelles are catching up and are developing their institutions. When it comes to the interface between IP and competition law, some competition laws directly address the issue, whereas others exempt IP from competition law application.

From a practical point of view, cases have been rare. Only the South African Competition Commission dealt with a case, which was eventually settled. This case relates to the issue of IP, competition law and access to medicine. Another merger case that was eventually authorized with conditions is also of relevance for the discussion. Finally, the newly functioning COMESA Competition Commission has recently cleared a merger that involved two pharmaceutical companies. Those cases will be discussed subsequently. They are referred to as a pretext to demonstrate the relevance of competition law as a public policy instrument for access to pharmaceuticals.

A complaint was lodged before the South African Competition Commission against GlaxoSmithKline South Africa (Pty) Ltd ('GSK') & Boehringer Ingelheim (Pty) ('BI')[17], (hereinafter *GSK/BI* case), initially for high pricing but later extended to include an alleged violation of Sections 8(b) and (c) of the Competition Act, which deal respectively with the essential facilities doctrine and exclusionary conduct.[18] The case was eventually settled. In particular, GSK and BI were accused of the following anticompetitive conduct:

[15] According to a need assessment conducted by the African Competition Forum, no fewer than 24 countries have competition laws at all, Mor Bakhoum, 'Balancing Incentive to Innovate and Freedom to Compete: an African Perspective on IPRs and Competition Law, p. 16, p. 15.

[16] Generally on competition law and policy in regional integration, see 'Competition Policy and Regional Integration in Developing Countries', Joseph Drexl/Mor Bakhoum/Eleanor Fox/Michal Gal/David Gerber (Eds.) Edward Elgar, Northhampton 2012.

[17] The case was settled. See the Commission´s comments on the case at South African Competition Commission, Newsletter, edition 15, March 2004, at pp. 1-2, available at: <http://www.compcom.co.za/assets/Uploads/AttachedFiles/MyDocuments/March-04-Newsletter.pdf>

[18] For a discussion of the case, see Mfundo Ngobese and Liberty Mncube, Competition Policy in South Africa's Pharmaceutical Sector: Balancing Competition and Innovation (2011) on file with the author).

- GSK abused its dominant position in the market for anti-retroviral drugs (ARVs) by charging excessive prices on the product;
- making the product inaccessible to the general public;
- refusing to supply a competitor access to an essential facility;
- dramatic difference in the price of ARVs sold in South Africa and generic alternatives sold outside South Africa;
- the existence of patents prevented sale of generic substitutes in South Africa;
- patent protection did not entail a firm to charge high prices.

The Competition Commission concluded its investigation with a finding that GSK and BI abused their dominant position by charging excessive prices, refusing to grant access to essential facilities to a competitor, and engaging in exclusionary conduct. The matter did not come before the Competition Tribunal, as GSK and BI accepted a settlement, which resulted in a drastic reduction in the prices of pharmaceuticals in South Africa.

As part of the settlement, GSK and BI agreed to:

- Grant licences to generic manufacturers;
- permit the licensees to export the relevant ARV medicines to sub-Saharan African countries;
- where the licensee did not have manufacturing capability in South Africa, permit the importation of the ARV medicines for distribution in South Africa only, provided all the regulatory approvals were obtained;
- permit licensees to combine the relevant ARVs with other ARV medicines; and
- not require royalties in excess of 5 per cent of the net sales of the relevant ARVs.

Two aspects are worth highlighting in this case. First, the competition law offences that GSK and BI are accused of would have been difficult to tackle using only the IP flexibilities such as compulsory licensing. Charging high prices, refusing to grant access to essential facilities, or engaging in exclusionary conduct would be difficult to use as grounds for compulsory licensing under the TRIPS Agreement.

The second interesting aspect of this case are the conditions of the settlements and the commitments accepted by GSK. The different commitments mirror the developments in the framework of Doha with regard to pharmaceuticals with the introduction of the mechanism of licensing for export for countries without sufficient manufacturing capacities. In Doha, in addition to the Declaration on Intellectual Property and Public Health, a new mechanism allowing countries without sufficient manufacturing capacities to issue compulsory licences for imports was introduced. Although in theory the mechanism would enhance access to pharmaceuticals, in practice it proved difficult to render operational, as the only instance in which it was tested displays.[19]

It is interesting to note in the GSK case in South Africa that the Doha mechanism set up for countries without manufacturing capacities, which allows countries to issue compulsory licences for exportation, was achieved through competition law. Hence, in its commitments, GSK agreed to permit licences to export the relevant ARV medicines to sub-Saharan African countries. In addition, GSK agreed that where the licensee did not have manufacturing capacity in South Africa, it would permit the importation of the ARV medicine for distribution in South Africa only, provided the regulatory approval was obtained. Those commitments, which constitute the essence of Article 31*bis* of the TRIPS Agreement, were obtained not through importing mechanisms, which turned out to be of difficult use, but by using competition law.

Moreover, a price cap of 5 per cent of the net sales of the relevant ARVs allows GSK to control the prices it charges licensees. The terms of the commitments go beyond what was agreed upon in the framework of Doha. In addition, enforcing the Doha measures involves a heavy administrative burden, whereas the Competition Commission can easily monitor that GSK actually respects its commitment.

This case displays the efficiency gains of using competition law in addition to IP flexibilities. Competition law control can turn out to be more effective and easier to enforce than IP *stricto sensu* flexibilities.

The *Aspen/GSK*[20] merger case dealt with by the South African Competition Commission is another example of the relevance of competition law intervention in order to keep the market open and

[19] Only Rwanda has so far used the system.

[20] For comments on the merger see South African Competition Commission Newsletter, Edition 34, March 2010, available at: <http://www.compcom.co.za/assets/Uploads/AttachedFiles/MyDocuments/FINALfor-Web.pdf>

competitive. Aspen was a large generic pharmaceutical company that wanted to acquire the pharmaceutical component of GSK. During the merger, GSK announced its intention to license ARV to Aspen. The Competition Commission raised concerns about whether or not GSK would allow access of the ARV to other competing firms on the same conditions it had granted Aspen. In order to achieve a more competitive price the Competition Commission finally approved the merger on the condition that GSK granted licences to other competing firms on a non-exclusionary basis. The condition to grant licences to other competing firms allows price competition in the market that will eventually decrease the prices of pharmaceuticals. Price competition from an access point of view is very relevant for the consumer.[21] However, one has to bear in mind that research and development (R&D) is very costly in the pharmaceutical industry. Mergers between competing firms can constitute a way to fund R&D. Therefore, when analysing the actual or potential effects of a merger in the pharmaceutical industry, the need to allow access to pharmaceuticals must be balanced with the need to ensure that future innovation will not be hindered.

Recently, the newly operative Competition Commission of COMESA approved unconditionally a merger between two pharmaceutical companies: Cipla India and Cipla Medpro South Africa Limited.[22] Cipla India is a generic pharmaceutical manufacturing company that does business in various therapy areas. Cipla does not have manufacturing plants in the COMESA market. Cipla India supplies the Common Market primarily through distributors. As to Cipla Medpro, it manufactures and distributes various pharmaceutical products and provides health care solutions as well. After defining the relevant market as the supply of generic pharmaceutical products in the Common market, the COMESA Competition Commission determined that: (1) the same market concentration would remain post-merger as the parties did not compete in the common market before the merger';[23] (2) import competition was very rife in this market as most of the drugs sold in this market were imported. This would therefore give competitive discipline to the merging parties and restrain them from behaving in an anticompetitive manner.[24]

The Competition Commission added that 'the transaction would not result in the removal of any competitor from the relevant market as generally the parties were not competing pre-merger'.[25] Despite the absence of competition between the two firms and the openness of the relevant market to competition, the Commission reveals the existence of structural and regulatory barriers. Those relate to the cost of establishing a distribution network and the various registration processes the pharmaceutical companies need to take before they have the authorization to supply in the Common market. Regulatory barriers are common in the pharmaceutical industry business.

The Competition Commission:

> concluded that the acquisition of Cipla Medpro by Cipla India was not likely to substantially prevent or lessen competition and it will not be contrary to public interest in accordance with Article 26 (1) and 26 (3) of the Regulations respectively. Further, the assessment of the merger revealed that it was compatible with Article 55 of the COMESA Treaty in that it did not negate the objectives of free and liberalized trade.[26]

The merger did not raise competition-related issues that would have been detrimental to access to pharmaceuticals in the common market as importing competition was stifled and the merging firms were not competitors in the relevant market pre-merger. The analysis would have certainly been different if the merging companies were competing in the relevant market and held a dominant position in the distribution. This would have raised competition concerns.

The COMESA Commission hints to the issue of public interest, which is one criteria put forward by the COMESA Regulations when analysing a merger. This aspect goes beyond the scope of this paper, but it would be interesting to see how access to pharmaceuticals relates to the concept of public interest as defined in the COMESA Regulations.

[21] Mor Bakhoum, 'Balancing Incentive to Innovate and Freedom to Compete: An African Perspective on IPRs and Competition Law', Max Planck Institute for Intellectual Property and Competition Law Research Paper No. 13-11, 2013.

[22] Notification of a Merger under Article 24 of the COMESA Competition Regulations, available at: <http://www.comesacompetition.org/images/Documents/merger%20notice%20no%202.pdf>

[23] Press release on African Anti-Trust and Competition Law News and Analysis, available at: <http://africanantitrust.com/2013/08/07/comesa-publishes-explanation-of-first-two-merger-approvals-receives-4th-deal-filing/comment-page-1/>

[24] ibid.

[25] ibid.

[26] ibid.

V. CONCLUDING REMARKS

In line with the TRIPs Agreement, so far the focus has been limited to the use of the flexibilities within the IP system, including compulsory licensing. The developments in the framework of Doha, with the Doha Declaration and the subsequent scheme of exports, seem to be of limited effectiveness. So far only Rwanda has attempted to use the system, which turned out to be ineffective.

It is of course important to use the flexibilities within the IP system by carefully defining the patentability criteria or having an enhanced control over the requirements of patentability. This has been done in India with the Novartis case decided by the Supreme Court, which prevented ever-greening. Using the IP system should be the first layer of protection against strategic patenting that has a detrimental effect on access to medicine.

10 SPAIN'S APPROACHES TO THE ANGLO-AMERICAN FAIR USE DOCTRINE: DO WE NEED TO REFORM THE EUROPEAN SYSTEM OF COPYRIGHT LIMITATIONS AND EXCEPTIONS?

[*]José Juan Castelló-Pastor

ABSTRACT

Interpretation of copyright limitations and exceptions is restrictive under the EU law system. Likewise, it is restrictive in Spain. Nevertheless, several Member States' decisions concerning online infringements have been ruled to be sheltering the use of a copyrighted work—without the owner's authorization—by limitations other than those referred to by statute. Hence, a flexible interpretation of limitations has been to the detriment of the present European copyright legal system.

***Keywords**: copyright, limitations and exceptions, Spain, EU Directives, fair use doctrine, three-step test, Google.*

I. INTRODUCTION

At present, search engines have become 'essential' tools. In search engines, users have an excellent ally in finding any kind of information on broad or particular topics and in looking at images on a specific topic.[1] These create regular situations in which right holders see their protected work online without their authorization. Hence, exclusive rights may be infringed unless this use, done by the search engine, is subject to a limitation or exception in the statute.

National laws create a copyright legal system of limitations and exceptions. Indeed, most of these legal systems are directly influenced by international standards, in particular, the 1967 Berne Convention[2], the TRIPS Agreement in 1994[3], the WIPO Copyright Treaty (WCT) in 1996, the WIPO Performances and Phonograms Treaty (WPPT) in 1996[4], the Beijing Treaty on Audiovisual Performances (BTAP) in 2012[5], and finally, the most recent, the Marrakesh Treaty to Facilitate Access to Published Works for Persons who are Blind, Visually Impaired, or Otherwise Print Disabled, in 2013.[6]

Furthermore, at a regional level member States of the European Union are bound by the 2001/29/EC Directive on the harmonization of certain aspects of copyright and related rights in the information society (InfoSoc Directive, hereinafter).[7]

Indeed, across the world, different systems of limits must coexist. On one hand, there might exist a closed system, based on a fixed list of limitations and exceptions created by statute, for which interpretation is restricted and the 'Three-step Test' rule is adopted as a hermeneutical criterion of these limits. For instance, Spain and most of the Continental European countries have adopted this standard rule bound by the InfoSoc Directive. On the other hand, several countries have chosen an open system of limitations and exceptions based on their judicial interpretation: the clearest example of this model is the United States of America with its 'fair use doctrine'.

Taking into account this entirely different approach (open/narrow system of limitations/exceptions), several Member State court decisions on search engine copyright infringement are allowing, at present, the unauthorized use of a copyrighted work on grounds other than those referred to in Member State statutes. Spanish, German and French national courts are leading these decisions. To that end, an important question is whether a reconsideration of the foundations of the continental system of limitations and exceptions is necessary in order to increase flexibility. That is, are courts' decisions leading an approach from the narrow (European/Spanish) system to an (Anglo-American)

[*] **Mr José Juan Castelló-Pastor** (Spain) worked as associate professor of Private International Law at the University of Valencia (Spain). He holds a LL.M from Queen Mary College (University of London) in Computer and Communications Law´. At present, he is visiting fellow at Fordham University (New York, United States) finishing his doctoral Ph.D studies on 'Search engines: a comparison of US/EU-Spanish legal systems on copyright online infringements and ISP liability, especially on "information locations tools" safe harbour'. He is admitted to the Bar in Valencia and works as freelance in a law firm in Valencia (Spain).
Email: <josejcastello@gmail.com>

[1] According to the Oxford dictionary definition, a search engine is 'a program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the Internet'. Oxford Dictionary: <www.oxforddictionaries.com/definition/english/search-engine> accessed 18 October 2013. Google, Yahoo! or Bing are known examples of these tools. Nevertheless, in this paper, it should also be borne in mind that, for instance, most websites nowadays have a small box to facilitate users finding information inside their site or to redirect them to another page of results, such as eBay, which also has a box-tool-engine to find products, newspapers to find old news etc.

[2] <http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html> accessed 18 October 2013.

[3] <http://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm> accessed 18 October 2013.

[4] <http://www.wipo.int/treaties/en/text.jsp?file_id=295166>;<http://www.wipo.int/treaties/en/text.jsp?file_id=295578> both accessed 18 October 2013.

[5] <http://www.wipo.int/treaties/en/ip/beijing/> accessed 18 October 2013.

[6] <http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=241683> accessed 18 October 2013.

[7] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:167:0010:0019:EN:PDF> accessed 18 October 2013.

open system? If so, in my opinion, Article 5.5 of the InfoSoc Directive should be 'modified.'

II. SPANISH COPYRIGHT LEGAL SYSTEM OF LIMITATIONS AND EXCEPTIONS

Spanish Copyright Law is currently governed by a consolidated Text of the Intellectual Property Law (hereinafter, TRLPI), which was approved by Royal Legislative Decree No. 1/1996, of 12 April 1996, amended several times, and recognizes moral and economic rights to authors over their work.[8]

Chapter II of the TRLPI, entitled 'limits', encompasses Articles 31 to 40*bis*. This chapter deals with limitations and exceptions on exclusive rights of the author/right holder[9], most of which were the result of a *de minimis* implementation of the InfoSoc Directive. According to these limits, a copyrighted work could be used by anyone, without a right holder´s authorization, due to constitutional principles[10] that prevail over the owner´s protected work.

Nevertheless, the use of a copyrighted work granted under any of the former *ex legem limitations* cannot be understood as a full licence insofar as it may not hold up under Article 40*bis* of the TRLPI. In short, Spanish legal doctrine states: 'this article represents a limit to limits.'[11] Likewise, in regard to the 'Three-Step Test' rule, international scholars affirmed that 'the test is often portrayed as imposing a "limit to limitations".' This is indeed what the language suggests.'[12]

Indeed, Article 40*bis* of the TRLPI declares that: '[S]ections of this chapter shall not be interpreted in such a way as to allow its application to cause an unjustified prejudice to the author´s legitimate interests or be contrary to the normal exploitation of the works'. This section accommodates the international renowned 'Three-Step Test' rule.

III. THE ROLE OF THE 'THREE-STEP TEST'

The origin of this rule is, as mentioned above, international. In 1967, during the Stockholm revision conference[13], the 'Three-Step Test' was envisioned in the Berne Convention in Article 9.2. This Article, referring only to the right of reproduction, stated that:

> It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.

Henceforth, the test was incorporated into different international agreements, all to which Spain was a contracting party. In 1994, Article 13 of the TRIPS Agreement extended the test to all exceptions and limitations of economic rights under copyright. In 1996, a similar approach known as Copyright Treaties was followed in Article 10 of the WCT and Article 16 of the WPPT, respectively. In both WIPO Treaties, the 'Three-Step Test' was extended to all exceptions and limitations. More than a decade later, in Article 13, the Beijing Treaty on Audiovisual Performances adopted in Article 13 a *copy* of Article 16 of the WPPT. Finally, Article 11 and 12 of the Marrakesh Treaty directly refer to the Berne Convention and WCT Treaty.

At the regional level, this rule was eventually included in the European Union in several Directives in the nineties of the past century. However, the InfoSoc Directive sets forth the international 'Three-Step Test' in Article 5.5, which declares:

> The exceptions and limitations provided for in paragraphs 1, 2, 3 and 4 shall only

[8] <http://www.wipo.int/wipolex/en/text.jsp?file_id=244508> accessed 18 October 2013.

[9] These limits refer to different exploitation rights within the Spanish legal system: i.e. right of reproduction, right of distribution, communication to the public, and right of transformation. Each of these exclusive rights has a number of limitations or exceptions related to discrete uses, for example: temporary copies (Section 31.1 TRLPI); public security and official use (Section 31 bis (1)); use by disabled persons (Section 31 bis (2)); quotation (32.1 TRLPI); illustration for teaching (Section 32.2); information and reporting on current events (Section 33.2 TRLPI); limitations for databases (Section 34 TRLPI), works located in public places (35.2 TRLPI); limitations in favour of libraries and educational institutions (Section 37 TRLPI); broadcast-related purposes (Section 36 TRLPI); uses on official and religious ceremonies (38 TRLPI); and parody (Section 39 TRPLI).

[10] Such as the right to education, the right to have access to culture, the right of information or freedom of expression etc.

[11] M Sol Muntañola, (Mod.) J Marin Lopez, JC Erdozin, A González, 'Copyright y derecho de autor: ¿convergencia internacional en un mundo digital? Mesa redonda: El test de las tres etapas y la comunicación pública' (FUOC, 2005) 31 <http://www.uoc.edu/idp/1/dt/esp/mesaredonda01.pdf> accessed 18 October 2013; R. Bercovitz Rodriguez-Cano et al., *Manual de Propiedad Intelectual* (Tirant Lo Blanc, Valencia, 2009) 102.

[12] PB Hugenholtz and R Okedijii, 'Conceiving an International Instrument on Limitations and Exceptions to Copyright' (Final Report, 6 March 2008) 18 <http://www.ivir.nl/publications/hugenholtz/limitations_exceptions_copyright.pdf> accessed 18 October 2013.

[13] Indeed, it was recognized before with regards to the 'doctrine of minor reservations' in the Final Report of the Brussels Conference of 1948 of the Berne Convention.

> be applied in certain special cases which do not conflict with a normal exploitation of the work or other subject-matter and do not unreasonably prejudice the legitimate interests of the right holder.

European policymakers specified an exhaustive list[14] of limitations and exceptions in Article 5 of the InfoSoc Directive. This 'legislative technique' favoured, at the time of implementing the InfoSoc Directive into national law, certain degrees of harmonization between EU Member States' national laws by preventing national legislators from introducing more limits—or creating other limits—than those referred to on the list. However, the unique mandatory limit listed in Article 5 to be implemented by national laws was an (Internet) temporary reproductions exception (Article 5, Paragraph 1), whereas the reminder limits were elective, including the relevant 'Three-Step Test.'

Notwithstanding, the imperative implementation of the 'famous' rule caused no objection in Spain because (1) such a rule was already implemented in 1993 as part of the Directive on computer programs; and (2) the 1996 Database Directive modified the 'Three-Step Test' under Article 40*bis* of the TRLPI to make it what it is today.

A. THREE-STEP TEST' INTERPRETATION: A TRUE HEADACHE

A great number of scholars have written about the interpretative meaning of this test/rule. Some of them believe a restrictive interpretation prevails, as does former Deputy Director General of WIPO, Dr Mihály J. Ficsor.[15] Other scholars have pointed out a flexible interpretation of this rule.[16] For instance, a leading European think-tank has reached several interesting conclusions during the last few years, including the so-called 'Munich Declaration', formally 'A Balanced Interpretation of the "Three-Step Test" in Copyright Law'[17], adopted in July 2008, and the 'European Copyright Code' adopted in April 2010, particularly its fifth chapter.[18]

Despite the aforementioned doctrinal views and having already stated this test/rule as 'the cornerstone for almost all exceptions to all intellectual property rights at the international level'[19], no authoritative interpretation has ever been declared.[20]

On the other hand, the jurisprudence of European member States' courts is not silent on this test/rule´s interpretation, as explained below, due to the allowance of unauthorized use of a protected work without statutory limitation. As Max Planck Institute for Intellectual Property and Competition Law Director, Reto Hilty, summarizes: 'it has become an interpretational tool for judges in order to apply exceptions and limitations, something like a pro-right holder filter. Although, and to the contrary, some see in this test an abstract, fair use ruling'.[21]

Hence, there is a problem!

B. A RESTRICTIVE INTERPRETATION OF THE TEST/RULE

Authors' opinions about a restrictive interpretation of the 'Three-Step Test' are mainly based on

[14] Recital 32 InfoSoc Directive: 'This Directive provides for an exhaustive enumeration of exceptions and limitations to the reproduction right and the right of communication to the public. Some exceptions or limitations only apply to the reproduction right, where appropriate. This list takes due account of the different legal traditions in Member States, while, at the same time, aiming to ensure a functioning internal market. Member States should arrive at a coherent application of these exceptions and limitations, which will be assessed when reviewing implementing legislation in the future'.

[15] A list of representative scholars could be C Masouyé, *Guía del Convenio de Berna* (WIPO Geneve 1978) 64-67, M Ficsor, *The Law of Copyright and the Internet, the 1996 WIPO Treaties, their Interpretation and Implementation* (Oxford University Press Oxford 2002) paragraph C 10.07; J Reinbothe and S Von Lewinski, *The WIPO Treaties of 1996* (Butterworths, London 2002) 132; JC Erdozain, *Derechos de autor y propiedad intelectual en Internet* (Tecnos, 2002) 137; A Lucas, 'Le test en trois étapes et sa signification dans la Directive de 2001 sur la société de l´information' (2011) Pe.i. revista de propiedad intelectual, 52.

[16] C Geiger, 'The Role of the Three-Step Test in the Adaptation of Copyright Law to the Information Society', (2007) Unesco e-Copyright Bulletin; C Geiger, J Griffiths and R Hilty, 'Towards a Balanced Interpretation of the "Three-Step Test" in Copyright Law' (2008), European Intellectual Property Review, 489-496; C Geiger, 'Flexibilizing Copyright – Remedies to the Privatizations of Information by Copyright Law' International Review of Intellectual Property and Competition Law, (2008) 178-197; M Seftleben, 'The International Three-Step Test: A Model Provision for EC Fair use Legislation', (2010) 1 JIPITEC 5; P B Hugenholtz and M Senftleben, 'Fair Use in Europe. In Search of Flexibilities' (2011), IVIR. Amsterdam; XIOL RIOS, JA 'La regla de los tres pasos en la jurisprudencia española' in O O'Callaghan, (Coord.), *Los derechos de propiedad intelectual en la obra audiovisual* (Dikinson Madrid 2011) pp. 382–388; M Senftleben, 'Comparative Approaches to Fair Use: An Important Impulse for Reforms in EU Copyright Law', GB Dinwoodie (ed.), 'Methods and Perspectives in Intellectual Property' (Cheltenham, UK/Northampton, MA, Edward Elgar, 2014, Forthcoming).
Available at SSRN: <http://ssrn.com/abstract=2241284>

[17] <http://www.ip.mpg.de/files/pdf2/declaration_three_step_test_final_english1.pdf> accessed 18 October 2013.

[18] <http://www.copyrightcode.eu/Wittem_European_copyright_code_21%20april%202010.pdf> accessed 18 October 2013.

[19] DJ Gervais, 'Towards a New Core International Copyright Norm: The Reverse Three-Step Test' 9 Intellectual Property L. Rev. 1 (2005), 13, available at:
<http://scholarship.law.marquette.edu/iplr/vol9/iss1/1/>
accessed 18 October 2013.

[20] S Ricketson and J Ginsburg, *International Copyright and Neighboring Rights: the Berne Convention and Beyond* (Oxford University Press 2006), 1152.

[21] R Hilty and S Nerisson, (eds.), 'Balancing Copyright – A Survey of National Approaches' (Berlin/Heidelberg, Springer Verlag, 2012), 24.

historical (negotiation) policymakers' background process.

The Brussels Conference of 1948 of the Berne Convention referred to a 'restrictive character of the limits' when the so-called 'minor reservations doctrine' was recognized. Furthermore, at the 1967 Stockholm Diplomatic Conference, it was announced:

> If it is considered that reproduction conflicts with the normal exploitation of the work, reproduction is not permitted at all. If it is considered that reproduction does not conflict with the normal exploitation of the work, the next step would be to consider whether it does not unreasonably prejudice the legitimate interests of the author. Only if such is not the case would it be possible in certain special cases to introduce a compulsory licence or to provide for use without payment.[22]

As well, the 'Three-Step Test' restrictive interpretation is based on Article 10(2) of the WTC, which states '[w]hen applying the Berne Convention, the Contracting Parties shall confine any limitations or exceptions ...'. Recently, as mentioned above, both treaties confirmed these provisions, which supports strong arguments to these scholars that policymakers could have, at present, relied upon a liberal interpretation of the Three-Step Test, while 'continu[ing the] adequacy of the test'.[23]

According to this doctrinal position, the interpretation of the criteria in the 'Three-Step Test' must be carried out in a restrictive manner, that is, each step must be applied step by step. An exception or limitation will not be applicable if it does not fulfil the first condition of the rule. Once the first condition has been fulfilled, then the exception or limitation must be analysed in the context of the second condition. Again, until this condition is fulfilled, the use is not allowed. Finally, the limitation and exception in question would only be applicable if it also satisfies the third condition.

At the regional level, InfoSoc Directive declares in recital 44:

> When applying the exceptions and limitations provided for in this Directive, they should be exercised in accordance with international obligations. Such exceptions and limitations may not be applied in a way which prejudices the legitimate interests of the rightholder or which conflicts with the normal exploitation of his work or other subject-matter. The provision of such exceptions or limitations by Member States should, in particular, duly reflect the increased economic impact that such exceptions or limitations may have in the context of the new electronic environment. Therefore, the scope of certain exceptions or limitations may have to be even more limited when it comes to certain new uses of copyright works and other subject-matter.

Therefore, limitations and exceptions on the InfoSoc Directive should be interpreted as International Treaties above-mentioned.

On the other hand, this narrow opinion is supported by relevant court decisions. At an international level, two WTO panels' resolutions in 2000 applied and interpreted the 'Three-Step Test' in this restrictive manner.[24] The Copyright WTO settlement analysed, *inter alia,* Article 13 of the TRIPS Agreement in a dispute between the United States and the European Communities before the Court of Arbitration of the WTO. This Court stated that 'the three conditions apply on a cumulative basis, each being a separate and independent requirement that must be satisfied'.

This Panel Report decision, *mutatis mutandis*, could—or should—be applicable to criteria set in Article 9(2) of the Berne Convention, mainly, by its likeness. Notwithstanding, some scholars have criticized this Panel Settlement, arguing that it should not have just taken economical and quantitative approaches into account, it should have also taken social and qualitative element approaches into account.[25]

[22] Records of the Intellectual Property Conference of Stockholm, 11-14 June 1967, (WIPO, 1971) pp. 1145-1146.

[23] M Ficsor, Short paper on the Three-Step Test for the Application of Exceptions and Limitations in the Field of Copyright. (19 November 2012), available at: <http://www.copyrightseesaw.net/archive/?sw_10_item=28> M Ficsor, Commentary on the Marrakesh Treaty on Accessible Format Copies for the Visually Impaired (2013), pp. 49-57 <http://www.copyrightseesaw.net/archive/?sw_10_page=1&sw_10_item=51> accessed 18 October 2013.

[24] These cases are WT/DS114/R (17 March 2000) on Patents and WT/DS160/R (15 June 2000) on Copyright. Avaliable at: <http://www.wto.org/english/tratop_e/dispu_e/7428d.pdf> and <http://www.wto.org/english/tratop_e/dispu_e/1234da.pdf> accessed 18 October 2013.

[25] M Senftleben, 'Copyright, Limitations and the Three-Step Test: an Analysis of the Three-Step Test' in *International and EC Copyright Law* (Kluwer Law International, 2004) 140; S Rickeson, *The Berne*

The Court of Justice of the European Union (CJEU), in re 'Infopaq decision' [Judgment of the Court (Fourth Chamber) of 16 July 2009][26] adopted this line in paragraph 56:

> For the interpretation of each of those conditions in turn, it should be borne in mind that, according to settled case-law, the provisions of a directive which derogate from a general principle established by that directive must be interpreted strictly (Case C-476/01 Kapper [2004] ECR I-5205, paragraph 72, and Case C‑36/05 *Commission v. Spain* [2006] ECR I‑10313, paragraph 31).

Finally, some of Member States' court decisions on online search engines infringements have also stressed this restrictive interpretation of the statutory limitations. For instance, the Belgium *Copiepresse v. Google* case declared 'the exceptions and limitations [to the exclusive rights] must be restrictively interpreted and be expressly provided' and 'since the reproduction right is exclusive, any exception can only be restrictively interpreted'.[27]

However, as aforementioned, this restrictive interpretation´s view of the 'Three-Step Test' at the end of the day is not peaceful, since there is a strong European academic movement advocating a liberal interpretation and, furthermore, few recent National Court decisions are held on this sense.

This renowned group of scholars published the 'Munich Declaration'. The core objective of 'A Balanced Interpretation of the "Three-Step Test" in Copyright Law' is to not unduly restrict national limitations and exceptions. Moreover, these academics believe new limitations and exceptions are to be introduced provided that they are properly balanced. To that end, signatory scholars support extending the content of these limitations and to create new limitations to exclusive rights. On the other hand, the main purpose of the 'European Copyright Code,' written in 2010, is to serve as a model or reference tool for future law harmonization. Nevertheless, voices against this 'Munich Declaration' have been raised.[28] National courts are granting the use of copyrighted works without right holders' authorization under no statutory limits.

C. JUDICIAL REFORMIST INTERPRETATION OF THE 'THREE STEP TEST'

Search engines provide users with information-queried content—such as pictures and images, links to newspapers, websites, etc., all of which have previously been crawled and stored in its server. This content is normally shown, at first, by a 'cache copy' from its original. A few seconds later, the original page is provided to users. This automatic process performed by search engines is to accelerate information shown to users, regardless of whether the search engine has the right to reproduce the information. Thus, ownership may be infringed unless a legal limitation, fixed in statute, endorses this use.

(a) French and German National Court decisions on search engines' online infringements grant use of a copyrighted work without the right holder´s authorization and no statutory limit.

Member State courts have dealt with Google thumbnail images and cached copies on page-results.[29] Most of these are used without the right holder's authorization. Assuming these thumbnail and cached copies are not enshrined by any limitations and exemptions, that is, neither temporary copy limitations of Article 5.1 InfoSoc Directive, nor safe harbour 'proxy caching' protection of Article 13 e-commerce Directive[30] (or Member States' implemented Laws), different national case-law has been ruled justifying this use without statutory limitation/exception.

Convention for the Protection of Literary and Artistic Works: 1886-1986 (Kluwer, 1987), pp. 482-3.

[26] <http://curia.europa.eu/juris/document/document.jsf?text=&docid=72482&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=504474> accessed 18 October 2013.

[27] '*Copiepresse SCRL v. Google Inc.*', Tribunal de Première Instance de Bruxelles, 13 February 2007; confirmed by Cour d'Appel de Bruxelles (9ème Ch.), 5 May 2011.

[28] A Lucas and P Cámara Águila, 'Por una interpretación razonable de la regla de los tres pasos, o por qué hay que evitar la imprecisión: estudio sobre la 'declaración por una interpretación equilibrada de la regla de los tres pasos en derecho de autor' (2009) 33 Pe. i. revista de propiedad intelectual, 22; MJ Ficsor, 'Munich Declaration on the Three-Step Test – Respectable Objective; Wrong Way to Try to Achieve It' (2012-05-11) <http://www.copyrightseesaw.net/archive/?sw_10_page=2&sw_10_item=15> accessed 18 October 2013.

[29] M Peguera Poch, 'Copyright Issues Regarding Google Images and Google Cache' in A Lopez-Tarruella Martinez (Coord.) *Google and the Law -Empirical Approaches to Legal Aspects of Knowledge-Economy Business Models* (TCM Asser –Springer 2012) 1692- 202; R. Xalabarder , 'Google News and Copyright' in A Lopez-Tarruella Martinez (Coord.) Google and the Law -Empirical Approaches to Legal Aspects of Knowledge- Economy Business Models (TCM Asser –Springer 2012) 146-151.

[30] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce'), Official Journal L 178 , 17/07/2000 P. 0001 – 0016.
Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0031:En:HTML> accessed 18 October 2013.

In France, several resolutions lead this narrow interpretation, namely *Saif v. Google*'[31] and *H & K v. Google*. In 2011, the Court of Appeals in *Saif v. Google* exonerated search engine companies from liability for copyright infringement. The court understood that the indexing process was automatic; hence Google had a passive attitude—with no human intervention—over reproduced copyrighted work.[32] Furthermore, the use of thumbnails was understood as necessary for the process of Google Imaging page-results. Therefore, this use responds to the 'necessary functionality' of the search engine for public benefit.

In *H & K v. Google*[33], the Court upheld the ruling that thumbnail images were not infringing owners' copyright due to Google's passive—automatic/neutral—role in the search process. Nevertheless, Google was found guilty for not expeditiously removing these thumbnails once a 'takedown notice' of copyright infringement was received. Thumbnails appeared on page-results for a short period of time after the takedown notice.

In Germany, the Federal Supreme Court of Justice held that thumbnail images displayed on Google´s page-results did not infringe an owner´s copyright.

In 2010, in re 'Vorschaubilder I'[34], the Federal Court concluded that there was no infringement of an owner´s copyright due to the implied licence (*volenti non fit iniuria*) theory. The claimant implicitly consented to this indexation by rejecting to use any technical impediment or to opt out of Google's crawler. On this ground, the Court defended the claimant´s abuse of right and infringement of contractual bona fide. One year later, in re 'Vorschaubilder II'[35] the aforementioned resolution was confirmed: 'an implied consent by the copyright owner has to be assumed once copyright protected images are published on the Internet with the copyright owner's permission and that this consent also extends to images that were not posted on the Internet by the copyright owner or with his permission by a third party.'[36]

To sum up, both countries have started to enshrine unauthorized uses of copyrighted works on grounds other than fixed statutory limitations, that is sheltering an activity for reasons other than those referred to in its own law. At the end of the day, a user´s freedom of navigation and access to information should prevail whenever the intermediaries' activity is technical, automatic passive, and in good faith.

IV. OPEN SYSTEM OF LIMITS: FAIR USE DOCTRINE

Fair use doctrine is a perfect illustration of an 'open' system of limitations. The US system of limitations on exclusive rights is codified under Section 107 of the US Copyright Act in 1976.[37] This section is divided into three parts: (1) a preamble, which declares that 'fair use' of a protected work does not constitute an infringement of copyright; (2) a list of six illustrative examples qualified under 'fair use', such as 'criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research'; and (3) four factors to be considered by judges to determine whether the use made of a protected work in any particular case is a fair use: the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes; the nature of the copyrighted work; the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect of the use upon the potential market for or value of the copyrighted work.

One must bear in mind that US courts have been developing the fair use doctrine since it was first

[31] *'Société des Auteurs des arts visuels et de l' image fixe (SAIF) v. Google France and Google Inc*', Tribunal de Grande Instance de Paris, 20 May 2008 confirmed by the Cour d'Appel de Paris, 26 January2011 <www.juriscom.net/documents/caparis20110126.pdf> accessed 18 October 2013.

[32] This neutral role opinion was encouraged by the ECJ Judgment of 23 March 2010, C-236/08 to C-238/08, *Google France and Google Inc. et al. v. Louis Vuitton Malletier et al.* which paragraph 114 stated that: '[…] in order to establish whether the liability of a referencing service provider may be limited under Article 14 of Directive 2000/31, it is necessary to examine whether the role played by that service provider is neutral, in the sense that its conduct is merely technical, automatic and passive, pointing to a lack of knowledge or control of the data which it stores'. Available at: <http://curia.europa.eu/juris/document/document.jsf?text=&docid=83961&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=209721> accessed 18 October 2013.

[33] Tribunal de Grande Instance de Paris 3ème Chambre, 2ème section, Judgement of October 2009, 'H & K, André R. c. Google'', <http://www.legalis.net/spip.php?page=jurisprudencedecision&id_article=2776> accessed 18 October 2013.

[34] Bundesgerichtshof (BGH) (German Federal Supreme Court) 29 April 2010, I ZR 69/08 (Vorschaubilder).

[35] Bundesgerichtshof, I ZR 140/10 of 19 October 2011 - Vorschaubilder II.

[36] Birgit Clark, 'Google Image Search Still Does Not Infringe Copyright, Reaffirms Bundesgerichtshof' (2012) Journal of Intellectual Property Law and Practice <http://jiplp.oxfordjournals.org/content/early/2012/10/09/jiplp.jps141.full.pdf> accessed 17 October 2013; M Liestetner, 'The German Federal Supreme Court´s Judgment on Google´s Image Search –A Topical Example of the 'Limitations' of the European Approach to Exceptions and Limitations' (2011) International Review of Intellectual Property and Competition Law.

[37] <http://www.copyright.gov/title17/92chap1.html#107>accessed 18 October 2013.

pointed out in *Gray v. Russell*[38] in 1839 and two years later in *Folsom v. Marsh*.[39] Nevertheless, the term 'fair use' was not coined until 1869.[40] At present, these four 'fair use' factors dominate courts decisions[41], meaning there is well-established case law on this issue.

A. Relevant Anglo-American Court decisions on online infringement on search engines

Although the fair use doctrine was created in the 19th century, US courts have applied this 'old' doctrine to 'new' issues on online copyright infringements, such as thumbnail images in Internet search results or caching of web pages by a search engine. *Kelly v. Arriba Soft*[42], *Perfect 10 v. Google* (a.k.a. *Perfect 10 v. Amazon*)[43] and *Field v. Google*[44] are examples of court resolutions in which search engines were found not liable for copyright, though no authorization was given by ownership of protected work.

Likewise, courts have pointed out that, when adjudicating fair use issues, other factors could be considered beyond the four statutory ones. For instance, in *Field v. Google*, the Court found it significant that Google had acted in good faith and granted summary judgment to Google on implied licence, estoppel, and fair use. In *Perfect 10*, the Ninth Circuit stated:

> Even assuming such automatic copying could constitute direct infringement, it is a fair use in this context. The copyright function performed automatically by a user's computer to assist in accessing the Internet is a transformative use. Moreover, as noted by the district court, a cache copies no more than is necessary to assist the user in Internet use. It is designed to enhance an individual's computer use, not to supersede the copyright holders' exploitation of their works. Such automatic background copying has no more than a minimal effect on Perfect 10's rights, but a considerable public benefit.

V. SPANISH SUPREME COURT DECISION 3 APRIL 2012

Spain has not been immune to present controversy by ruling a decision enshrining the use of a copyrighted work, without the owner´s authorization, by general principles of law—mainly, *ius usus inoqui* doctrine, bona fide and non-abuse of rights—in detriment of those fixed limitations on copyright law. Therefore, the highest court decision has increased flexibility in the application of copyright law.[45]

The controversy started in 2006 when the owner of www.megakini.com sued Google due to unauthorized reproduction and making available of contents on his page in Google-results, as well as a cached copy in his server. The plaintiff claimed 2,000 euros in damages and an injunction to prevent Google Spain from further operating its service worldwide. During the trial, both parties reached an agreement that cached copies were exempted under the temporary copies limitation of Article 31.1 of the TRLPI (ex Article 5.1 EUCD).

The lower court decision on 30 March 2007 (Juzgado de lo Mercantil nº 5 of Barcelone) and the appeals court decision on 17 September 2008 (*Audiencia Provincial* of Barcelone, 15th section) dismissed Megakini´s claim on different grounds. The lower court rejected the claimant´s argument on the basis of Article 31 of the TRLPI (temporary reproductions limit) with regard to Article 7.1 of the Civil Code (bona fide exercise rights and 'no abuse' of them). Furthermore, the Court found applicable Articles 15 and 17 LSSICE ('proxy caching' and 'search engine & link' safe harbours respectively). In this sense, the lower court stated:

> Defendant´s use of a small part of plaintiff website´s content, under temporary and incidental reproduction of its works and respecting its integrity and ownership, did not infringe any copyright. Besides, Google´s use of protected works was [for] 'social purposes' [because] any site disclosed

[38] *Gray v. Russell*, 10 F. Cas. 1035, 1038 (No. 5,728) (C.C.D. Mass. 1839).
[39] *Folsom v. Marsh* 9 F. Cas. 342, 345 (No. 4,901) (C.C.D. Mass. 1841).
[40] *Lawrence v. Dana* 15 Fed. Cas. 26 [1869].
[41] *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 576 (1994); B Beebe, 'An Empirical Study of US Copyright Fair Use Opinions, 1978-2005' (2008) 156 Pennsylvania Law Review 549; available at: <http://www.bartonbeebe.com/> accessed 18 October 2013.
[42] 336 F.3d 811, 815-16 (9th Cir. 2003).
[43] 508 F.3d 1146, 1163-68 (9th Cir. 2007).
[44] 412 F.Supp. 2d 1106, 1117-23 (D. Nev. 2006).
[45] F Palau Ramírez, 'Reflexiones sobre los conflictos relativos a la explotación de derechos de propiedad intelectual y la responsabilidad de los motores de búsqueda en Internet', JM Martin Osante et al. (coord.) *Orientaciones actuales del Derecho Mercantil. IV Foro de Magistrados y Profesores de Derecho Mercantil* (Marcial Pons 2013) 63. Available at:<http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2274205> accessed 18 October 2013; PA De Miguel Asensio, *Derecho Privado de Internet* (4th edn, Civitas); J Plaza Penadés, 'La aparente inocuidad del caso Google' (2012) 30 Revista Aranzadi de derecho y nuevas tecnologías, 13-17.

> over Internet is to be reached by anyone.

On appeal, the appeals court reached the same conclusion on different grounds. It found both the safe harbours and temporary copy limit not applicable. Instead, the court pointed out that Article 40*bis* of the TRPLI, which sets up the 'Three-Step Test' rule, leads to an interpretation of the statutory limitations in both a positive and negative way. At this point, the appeals court compared this test/rule to the Anglo-American 'fair use' doctrine. Finally, the court concluded that Google´s use was 'socially tolerated' since the applicant's right is limited like any other property right. In other words, these rights are not deemed absolute. Therefore, normal exploitation of a protected work must be accepted since this use was not detrimental (*ius usus inocui* doctrine) to the claimant´s interests. Indeed, the claimant´s petition—injunction to prevent Google´s search engine worldwide—was qualified as an abusive exercise of rights.

Megakini went before the Supreme Court because it violated the Spanish legal system by applying foreign 'fair use doctrine' and because it created a new ad hoc limitation forbidden by the current Spanish legal system.

The Supreme Court settled the dispute, reasoning that Megakini had not altered any legal system. Indeed, the Supreme Court declared that the fair use doctrine encompasses the '*ius usus inocui* doctrine,' which is a ´general principle of law´ perfectly valid in Spanish legislation. It held that Article 40*bis* of the TRLPI has an important interpretative value not only in an exclusively negative criterion ('Articles of this chapter may be construed ...'), but also in a positive meaning ('unreasonably prejudice the legitimate interests' or 'prejudice the normal exploitation of the work').

According to the above reasoning, the Supreme Court concluded that the '*ius usus inocui*' doctrine was within the mentioned positive aspect of the 'Three-Step Test' rule referred to as a general principle to exercise rights under Good Faith (Article 7.1 of the Civil Code), general principle of the prohibition of abuse of rights or anti-social exercise (Article 7.2 of the Civil Code), and configuration constitutional property rights. In short, the Supreme Court ruled in favour of Google due to the fact that copyright protection and its limitations cannot allow abusive claims.

VI. CONCLUSION

This paper aims to reflect on the need to reform the system of limitations and exceptions. Several European Members' court decisions have authorized the use of a copyrighted work without any statutory limitation provision, especially on online infringements issues. That is to say, courts have made a flexible interpretation of the narrow system of limits 'by creating' new limits. This task belongs to policymakers, unless they have decided on an 'open system of limitations'. In this sense, EU/Spanish copyright exceptions and limitations are outdated. A narrow system of limitations does not permit the use of technological advantages, while a flexible clause would. It may be a solution for EU policymakers to consider the possibility to create either new limitations or, better, a 'flexible clause' under copyright law.

BIBLIOGRAPHY

Books and articles

Beebe B, 'An Empirical Study of US Copyright Fair Use Opinions, 1978-2005' (2008) 156 Pennsylvania Law Review; available at: <www.bartonbeebe.com>

Bercovitz Rodriguez-Cano R, et al., Manual de Propiedad Intelectual (Tirant Lo Blanc, Valencia, 2009)

Clark B, 'Google Image Search Still Does not Infringe Copyright, Reaffirms Bundesgerichtshof' (2012) Journal of Intellectual Property Law and Practice <http://jiplp.oxfordjournals.org/content/early/2012/10/09/jiplp.jps141.full.pd>

De Miguel Asensio PA, Derecho Privado de Internet (4th ed, Civitas)

Erdozain JC, Derechos de autor y propiedad intelectual en Internet (Tecnos, 2002)

Ficsor M, The Law of Copyright and the Internet, the 1996 WIPO Treaties, their Interpretation and Implementation (Oxford University Press, Oxford 2002)

Ficsor M, Short paper on the Three-Step Test for the Application of Exceptions and Limitations in the Field of Copyright. (19 November 2012) <http://www.copyrightseesaw.net/archive/?sw_10_item=28>

Ficsor M, 'Munich Declaration' on the Three-Step Test – Respectable Objective; Wrong Way to Try to Achieve It' (2012-05-11) <www.copyrightseesaw.net/archive/?sw_10_page=2&sw_10_item=15>

Ficsor M, Commentary to the Marrakesh Treaty on Accessible Format Copies for the Visually Impaired (2013), pp. 49-57 <http://www.copyrightseesaw.net/archive/?sw_10_page=1&sw_10_item=51

Geiger C, 'The Role of the Three-Step Test in the Adaptation of Copyright Law to the Information Society', (2007) Unesco e-Copyright Bulletin
Geiger C, Griffiths J and Hilty R 'Towards a Balanced Interpretation of the "Three-Step Test" in Copyright Law' (2008), European intellectual property review

Geiger C, 'Flexibilizing Copyright – Remedies to the Privatizations of Information by Copyright Law' (2008) International Review of Intellectual Property and Competition Law

Gervais DJ, Towards a New Core International Copyright Norm: The Reverse Three-Step Test, 9 Intellectual Property L. Rev. 1 (2005), 13, available at:<http://scholarship.law.marquette.edu/iplr/vol9/iss1/1/>

Hilty R and Nerisson S, (eds.), Balancing Copyright – A Survey of National Approaches (Berlin/Heidelberg, Springer Verlag, 2012)

Hugenholtz PB and Okedijii R, Conceiving an International Instrument on Limitations and Exceptions to Copyright (Final Report, 6 March 2008)18 <http://www.ivir.nl/publications/hugenholtz/limitations_exceptions_copyright.pdf>

Hugenholtz P B and Senftleben M, 'Fair Use In Europe. In Search of Flexibilities' (2011), IVIR. Amsterdam

Liestetner M, 'The German Federal Supreme Court´s Judgment on Google´s Image Search –A Topical Example of the "Limitations" of the European Approach to Exceptions and Limitations' (2011) International Review of Intellectual Property and Competition Law

Lucas A and Cámara Águila P, 'Por una interpretación razonable de la regla de los tres pasos, o por qué hay que evitar la imprecisión: estudio sobre la "declaración por una interpretación equilibrada de la regla de los tres pasos en derecho de autor" (2009) 33 Pe. i. revista de propiedad intelectual

Lucas A, 'Le test en trois étapes et sa signification dans la Directive de 2001 sur la société de l´information' (2011) Pe.i. revista de propiedad intelectual

Masouyé C, Guía del Convenio de Berna (WIPO Geneve 1978)

Palau Ramírez F, 'Reflexiones sobre los conflictos relativos a la explotación de derechos de propiedad intelectual y la responsabilidad de los motores de búsqueda en Internet', J.M., MARTIN OSANTE et al. (coord.) *Orientaciones actuales del Derecho Mercantil. IV Foro de Magistrados y Profesores de Derecho Mercantil* (Marcial Pons 2013) 63, available at: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2274205>

Peguera Poch M, 'Copyright Issues Regarding Google Images and Google Cache' in Lopez-Tarruella Martinez A (Coord.) Google and the Law -Empirical Approaches to Legal Aspects of Knowledge-Economy Business Models (TCM Asser –Springer 2012)

Plaza Penadés J, 'La aparente inocuidad del caso Google' (2012) Revista Aranzadi de derecho y nuevas tecnologías

Sol Muntañola M, (Mod.) Marin Lopez J, Erdozin JC, González A, 'Copyright y derecho de autor: ¿convergencia internacional en un mundo digital? Mesa redonda: El test de las tres etapas y la comunicación pública' (FUOC, 2005). Availableat <http://www.uoc.edu/idp/1/dt/esp/mesaredonda01.pdf>

Reinbothe J, and Von Lewinski S, The WIPO Treaties of 1996 (Butterworths, London 2002)

Rickeson, S., The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986 (Kluwer, 1987).

Ricketson S and Ginsburg J, *International Copyright and Neighboring Rights: the Berne Convention and Beyond* (Oxford University Press 2006).

Senftleben M, *Copyright, Limitations and the Three-Step Test: an Analysis of the Three-Step Test in International and EC Copyright Law* (Kluwer Law International, 2004)

Seftleben M, 'The International Three-Step Test: A Model Provision for EC Fair use Legislation', (2010) 1 JIPITEC 5

Senftleben M, 'Comparative Approaches to Fair Use: An Important Impulse for Reforms in EU Copyright Law', G.B. Dinwoodie (ed.), *Methods and Perspectives in Intellectual Property*' (Cheltenham, UK/Northampton, MA, Edward Elgar, 2014, Forthcoming); available at SSRN: <http://ssrn.com/abstract=2241284>

Xalabarder R, 'Google News and Copyright' in A. Lopez-Tarruella Martinez (Coord.) Google and the Law -Empirical Approaches to Legal Aspects of Knowledge- Economy Business Models (TCM Asser – Springer 2012)

Xiol Rios JA, 'La regla de los tres pasos en la jurisprudencia española' in O´Callaghan O, (Coord.), Los derechos de propiedad intelectual en la obra audiovisual (Dikinson Madrid 2011)

Other documents

'Munich Declaration': A Balanced Interpretation of the "Three-Step Test" in Copyright Law' <http://www.ip.mpg.de/files/pdf2/declaration_three_step_test_final_english1.pdf>

European Copyright Code <http://www.copyrightcode.eu/Wittem_European_copyright_code_21%20april%202010.pdf>

Records of the Intellectual Property Conference of Stockholm, June 11-14 1967, (WIPO, 1971) pp. 1145-1146

Legislation

Berne Convention for the Protection of Literary and Artistic Works, as amended 1979 <http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html>

WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of 1994 <http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm>

WIPO Copyright Treaty (WCT) and (WPPT) of 1996 <http://www.wipo.int/treaties/en/text.jsp?file_id=295166> <http://www.wipo.int/treaties/en/text.jsp?file_id=295578>

Beijing Treaty on Audiovisual Performances of 2012 <http://www.wipo.int/treaties/en/ip/beijing/>

Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled of 2013 <http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=241683>

Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market ('Directive on electronic commerce') <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0031:En:HTML>

Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society on the harmonization of certain aspects of copyright and related rights in the information society <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:167:0010:0019:EN:PDF>

Spanish Intellectual Property Law, approved by Royal Legislative Decree No. 1/1996, of 12 April 1996 <http://www.wipo.int/wipolex/en/text.jsp?file_id=244508>

U.S. C. A. Section 107 <http://www.copyright.gov/title17/92chap1.html#107>

Case-Law:

International:

WT/DS114/R, 17 March 2000 <http://www.wto.org/english/tratop_e/dispu_e/7428d.pdf>

WT/DS160/R 15 June 2000 <http://www.wto.org/english/tratop_e/dispu_e/1234da.pdf>

Regional:

Judgment of the Court (Fourth Chamber) of 16 July 2009, Case C‑5/08, Infopaq *International A/S v Danske Dagblades Forening* <http://curia.europa.eu/juris/document/document.jsf?text=&docid=72482&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=504474>

Judgment of the Court (Grand Chamber), 23 March 2010, C-236/08 to C-238/08, *Google France and Google Inc. et al. v. Louis Vuitton Malletier et al.* <http://curia.europa.eu/juris/document/document.jsf?text=&docid=83961&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=209721>

National:

Belgium

Copiepresse SCRL v. Google Inc., Tribunal de Première Instance de Bruxelles, 13 February 2007; confirmed by Cour d'Appel de Bruxelles (9eme Ch.), 5 May 2011

France

Société des auteurs des arts visuels et de l' image fixe (SAIF) v. Google France and Google Inc, Tribunal de Grande Instance de Paris, 20 May 2008; confirmed by Cour d'Appel de Paris, 26 January 2011 <www.juriscom.net/documents/caparis20110126.pdf>

H & K, André R. c. Google <http://www.legalis.net/spip.php?page=jurisprudencedecision&id_article=2776>

Germany

Bundesgerichtshof (BGH) I ZR 69/08 19 April 2010, (Vorschaubilder)

Bundesgerichtshof, I ZR 140/10, 19 October 2011 – (Vorschaubilder II)

Spain

Sentencia del Tribunal Supremo de 3 de abril de 2012, Sala de lo Civil. Sentencia Nº: 172/2012

United States

Gray v. Russell, 10 F. Cas. 1035, 1038 (No. 5,728) (C.C.D. Mass. 1839)

Folsom v. Marsh 9 F. Cas. 342, 345 (No. 4,901) (C.C.D. Mass. 1841)

Lawrence v. Dana 15 Fed. Cas. 26 (1869)

Campbell v. Acuff-Rose Music, 510 U.S. 569, 576 (1994)

Kelly v. Arriba Soft Corp., 336 F.3d 811, (9th Cir. 2003)

Perfect 10 v. Amazon, 508 F.3d 1146, (9th Cir. 2007)

Field v. Google, 412 F. Supp. 2d 1106, (D. Nev. 2006)

11 INTEGRATION OF MODERN TECHNOLOGIES OF INTELLECTUAL PROPERTY IN PUBLIC ADMINISTRATION

[*]Vadym Nersesov

ABSTRACT

Both theorists and practitioners of public administration continue to argue about the extent to which public institutions and organizations can be transformed by the latest technologies. Among those who believe that the transformations will be essential are scientists who support the concept and influence of the development of intellectual property. This article is devoted to the consequences on public administration of increasing public sector dependence on the development of intellectual property. It is claimed that intellectual property, as well as e-government, is the vital resource for achieving the objectives of state development. The use of objects of intellectual property in public organizations assumes their transformation (Figure 11.1). The overcoming of obstacles in a way to potentially influence intellectual property demands short-term reforms (for example, improvement of partnership) and long-term reforms (for example, changes in organizational culture).

Keywords*: public sector, protectable intellectual property, research and development centre, e-government*

I. INTRODUCTION

A notable issue here is the use of the results of research and development works financed from the government budget, a process causing big concerns. This question gains paramount value for ensuring economic development of the state, increasing the competitiveness of the industry and attracting additional resources in the budget due to the introduction in economic circulation of objects of intellectual property.

At first sight, a solution could be fixing the status of rights for scientific and technical activity. The results of this activity, including intellectual property, would be created with the financial resources of the government budget (Figure 11.2).

[*] **Mr Vadym Nersesov** (Ukraine) Senior Lecturer, Department of Innovation and Project Management, and Head of the Laboratory of New Learning Technologies, Donetsk State University of Management, Ukraine; Bachelor of Computer Engineering, Donetsk National Technical University; Master of Intellectual Property, Donetsk State University of Management.

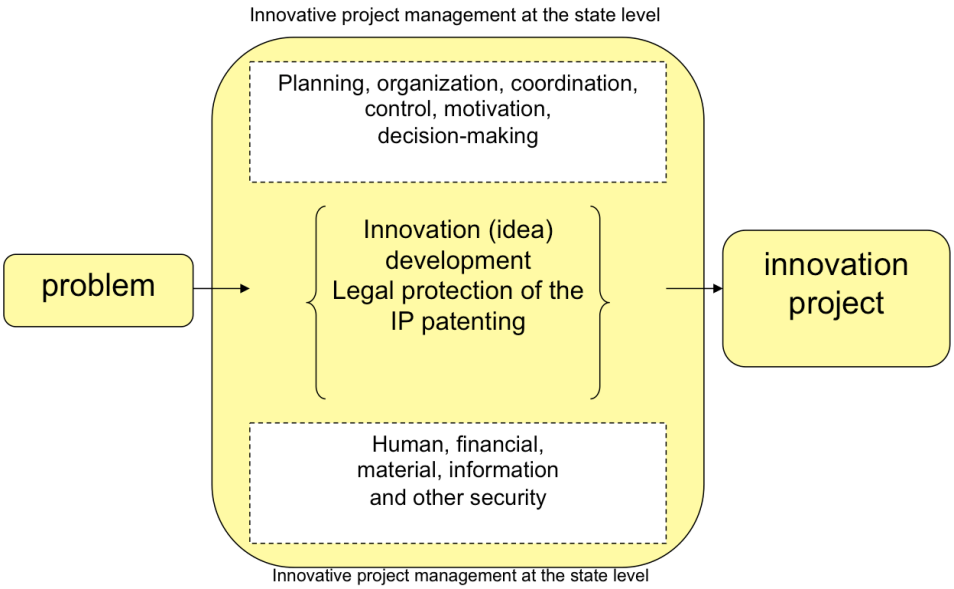


Figure 11.1. Model of the interaction 'Problem - Intellectual property - Innovative Project'

In most cases, the state directly finances scientific research, which results in the creation of new technical solutions in various areas. However, the state is not able to finance all innovative processes, bringing about examples of new technologies and the objects of equipment realized in the industry.

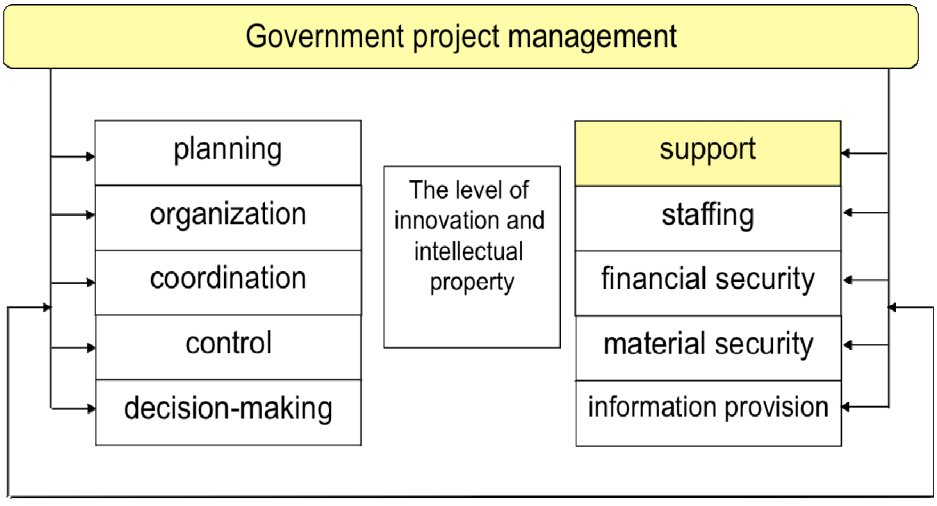


Figure 11.2. Government project management system

Having acquired all rights to scientific and technical results, the state assumes a duty to realize them by introducing them to commercial firms. This automatically assigns to the state the excessive burden of expenses necessary for an embodiment of research and development in the latest objects of equipment and technology.

It is undoubted that the key question becomes when and in what form will the state receive a return on investments made in scientific and technical activity? The answer is simple: when the results of such activity bring new technologies to operating plants and ultimately the market. The investments create new workplaces, tax revenues from profits of such enterprises, realization of production, and the income tax taken in the production and realization of goods. From this it follows that to the state, as to the owner of scientific and technical results of the intellectual property created at the expense of the government budget, it is necessary to solve a very 'unpretentious' problem—to organize and finance work to a stage when these projects will start making a profit.

II. DIFFERING MODELS FOR PUBLICLY ADMINISTERING INTELLECTUAL PROPERTY

From the experiences of developed countries such as Germany, France and the United States, one can know the various forms and methods of public administration for the intellectual property created at the expense of budget financing. At different times and in different conditions the following models were applied:

(a) Fiscal—provides the state exclusive rights to protectable results of scientific and technical activity created by order of governmental departments with proceeds recouping the spent budgetary funds;

(b) University—provides the researcher/ performer (represented by the scientific organizations and authors) with exclusive rights to results of scientific and technical activity;

(c) Industrial—provides rights priority to the industrial companies that participate with the state in both financing and using the results of research and development;

(d) Liberal—assumes a transfer of exclusive rights to the results of research to the researcher/performer with a lack of state control over the expenditure of budgetary funds allocated for science, and also limits participation of the state in profits derived from the intellectual property.

The development of a state-managed system of intellectual property is a transition from more traditional models to a fiscal-liberal one. Now the university and industrial model, and also their combination, are mainly applied.

In a market economy, the right to results of scientific and technical activity provide their owners with the opportunity to exploit those rights. However, the introduction of scientific and technical results in economic circulation is always interfaced with certain difficulties. Now, owing to an adverse general economic situation, they are shown especially sharply.

Actually, denying ownership of intellectual property rights from developers using public funds hinders investment in knowledge-intensive production and interferes with the creation of the enterprises involving individual-based financing of scientific and technical and innovative activity (Figure 11.3).

The path the state chooses regarding the acquisition and transfer of exclusive rights to scientific and technical results of intellectual property depends on a number of factors, the most important of which are:

- The priority of the national industry and increasing its competitiveness;
- the protection of exclusive rights to research results obtained in the public interest;
- the Government's intention to bring their own development to industrial application and sale of finished products.

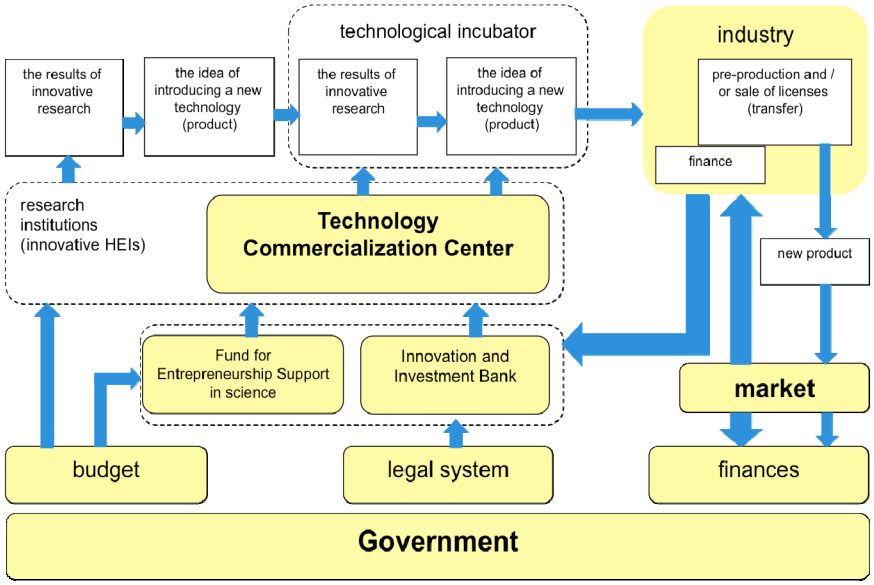


Figure 11.3. Structure of the interaction between the participants in the process of commercialization of intellectual property

As Figure 11.3 shows, it is necessary to create an organizational-management system for innovation adequate to the existing economic situation in a specific country. The greatest economic benefit for state industrial development can be developed by the latest technology and sales made using its products in domestic and foreign markets. However, the commercial use of research and development requires huge financial costs of a ready-to sale of goods.

It is therefore important to:

- Ensure a selective approach to the use of the state budget for the development of technologies, whose implementation will bring the best economic and social results; and

- attract investors in high-end production, and the development of various forms of equity and partial state participation in financing science, technology and innovation.

The state takes measures to protect intellectual property rights created with government funds in order to control use and recoup its costs for research and development through the sale of licences to third parties. However, as a process of creation, legal protection and the use of objects of intellectual property can be carried out only with the assistance of their founders—authors and organization developers. The organization developers also have to be economically interested in it, having gained from the activity the income proportional to their creative achievements and incurred expenses. Otherwise they cannot notify, for example, the customers about the created objects or protect them on behalf of third parties. In most cases, there is now a leak abroad created at the expense of government funding for intellectual property (Figure 11.4).

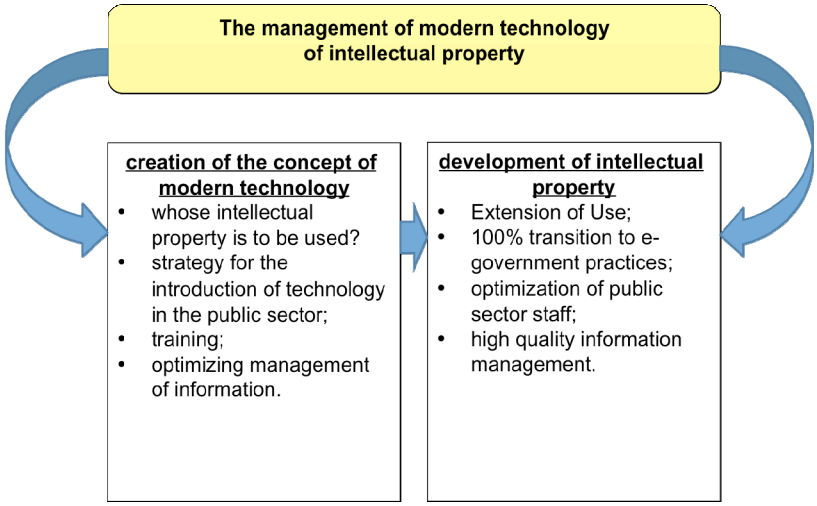


Figure 11.4. The management of modern technology of intellectual property

Therefore, the more attractive and important state interests are not exclusive rights to resulting intellectual property, but rather the continuous expansion of the production sphere, the development of the latest technologies containing intellectual property, and the release of competitive goods.

With sufficient funding, the industry would certainly be interested in mastering the production of new types of products and technology. This would improve the competitiveness of products, expand markets and increase profits. Public interest would cause an increase in gross domestic product based on the development of new products, and, with the support of investors creating new production capacities, it would increase the number of jobs and income in the budget in the form of sales taxes, taxes on producers, and workers in the industry. It is also possible to anticipate and legislate special contributions to the state budget from the profits obtained using techniques, including intellectual property created at the expense of the state budget. Thus, it is advisable to send the accumulated funds to support the research sector.

III. DISTRIBUTING RIGHTS AND RESPONSIBILITIES BETWEEN THE STATE, AUTHOR AND IMPLEMENTING ORGANIZATION

The following is a proposed distribution of rights and responsibilities for the results of scientific and technological activities between the state, as represented by the authorized state executive body (hereinafter 'the customer'), the implementing organization and the author.

The organization performer has the right:

- To use results of scientific and technical activity in own production;
- to transfer, with the permission of the customer, on a contractual (licence) basis, the rights for results of scientific and technical activity, including objects of intellectual property containing those results and including the rights to transfer such interests to the third parties.

The organization performer is obliged:

- To inform the customer on all created protectable objects in the course of work performance;
- to submit an application for the issuance of the security document and to get in the country and abroad exclusive rights to protectable results, specifying the applicant and the person addressed to whom the patent (certificate), authorized government body of the executive authority and the organization performer has to be granted;
- to provide to other enterprises and organizations instructions on the customer's non-exclusive licence for use of objects of intellectual property in developed technologies, which would be gratuitous when using those objects for state needs and paid in other cases;

- to present the customer with figures showing income from sales to third parties which have not been directly connected with the performance of work for federal state needs.

The customer has the right:

- To forbid organization-performers from acting contrary to the interests of the state and transferring rights resulting from state-funded research to the third parties, including licencing;

- to relinquish rights, including on the licences belonging to it stemming from the rights created by organization-performers, and in the case of refusal, to authors or the third parties;

- to instruct the organization performer on transfer of results of scientific and technical activity, including objects of intellectual property according to the licence to the third parties, including other state organizations and abroad;

- to receive an established share of proceeds from (1) sales and licences to third parties not connected with ensuring state needs, (2) use rights within the country, and (3) payments by the customer for the expenses of organization-performers engaged in foreign patenting. These proceeds (after satisfying requisite payment obligations) will be used on development of the scientific and technical sphere, with a focus on scientific research, marketing, patenting, licensing, stimulation, and vocational training.

The customer is obliged:

- To allocate funds for the payment of patent fees for submission of demands for obtaining security documents, their maintenance in force, and also payment of award for creation and use of objects of the intellectual property created by the state order.

Creators (authors) of protectable intellectual property have the right:

- To receive monetary compensation defined by legislation and an established share of the income from the funds allocated to the organization-performers by the state from proceeds of their intellectual property;

- to receive a share of the income from the sale of licences of the intellectual property created by them with an additional attraction of government financial resources when the transaction is made on behalf of the state.

In our opinion, an introduction of the listed norms will provide the economic interest of the organization performer and authors to notify the customers about all objects of intellectual property created in the course of work and that their creative achievements and the incurred expenses will be compensated.

A. Information Technologies as Objects of Intellectual Property

The emphasis on financial and human resources continues to dominate the troubled landscape of management in the public sector. Nevertheless, the importance of information resources continues to grow, and the management of the electronic government is an integral part of a problem of government as a whole. The increased importance of management of intellectual property, and the related information technologies, is a valuable asset that the government has to operate, especially considering public trust. The policy also demands from public institutions the use of electronic systems as the best way of creation, use and management of information. Information technology has already became the central resource to satisfy this requirement (Figure 11.5).

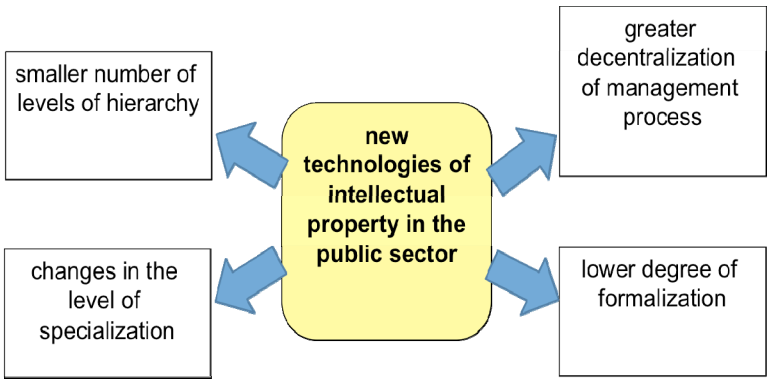


Figure 11.5 Result of the new IP technologies in the public secto

B. SEARCHING FOR THE SKILLS AND MEANS TO INTRODUCE INTELLECTUAL PROPERTY TO SOCIETY

The use of intellectual property assumes that public sector staff must gain special skills and spend considerable financial resources. In this regard, departments have to compete within their own management for public funds necessary to research and develop objects of intellectual property. They must also compete with the private sector for technologically qualified employees.

C. EFFICIENCY INCREASES

The use of intellectual property assumes the increase of overall performance at the expense of optimizing the management of information. The use of intellectual property in an information directorate can bring essential efficiency.

IV. CONCLUSION

This article describes the impact of proposals on the implementation of intellectual property for government institutions in Ukraine and in the world. This research supports the argument that the use of new technologies in the public sector will lead to greater transparency and ease of use of e-government.

BIBLIOGRAPHY

Korchagin A, Orlova N, 'Rights of the State Intellectual Property: the Interests of the Real and Imaginary' (2000) Journal Patents and Licences

Tribunskaya E, Kostina L, Nersessov V, 'Use of New Technologies for Specialty Teaching "Intellectual Property"' (2009). XIV International Scientific-Practical Conference 'Actual Problems of Intellectual Property' presentations, Yalta

12 TRADITIONAL KNOWLEDGE AS A MEANS OF RURAL ECONOMIC DEVELOPMENT IN ZAMBIA

* **Ackim Lungu**

ABSTRACT

The main objective of this paper is to highlight the importance of traditional knowledge in Africa and Zambia, in particular as a means through which to attain rural economic empowerment and development. Rural communities have for a long time in Zambia been associated with high unemployment levels and consequently high poverty levels. In light of the foregoing, this paper attempts to be an indicator to policymakers in Zambia to diversify the economy away from copper, which is the traditional export for the country, into other ventures such as the harnessing, use and commercialization of traditional knowledge to empower rural populations. In realizing and recognizing the intrinsic value that traditional knowledge, particularly traditional medicine, has, it becomes important that policymakers, through this paper, realize this intrinsic value and invest in this sector of the economy. Finally, the paper will provide recommendations for the successful harnessing of traditional knowledge for the benefit of the citizenry, especially rural communities in Zambia.

Keywords: *traditional medicine, cultural expressions, commercialization, protection, economic empowerment, rural population, rural incomes*

I. INTRODUCTION

Traditional knowledge can be defined or said to be knowledge that is distinctively associated, collectively generated and transmitted from generation to generation in a particular society. The National Intellectual Property Policy for Zambia (2010) recognizes traditional knowledge and further stresses that Zambia is endowed with an abundant heritage of diversity of culture, languages and biological diversity. According to the Drugs, Poison and Controlled Substances Act of Zambia of 1981, traditional medicine is classified as a substance of dependence.[1] Traditional knowledge can be traditional medicine and/or traditional cultural expressions. Most of the African communities and Zambia, in particular, are known for their rich cultural heritage and hence endowed with knowledge that is beneficial to societies even beyond Zambia and the borders of Africa as a whole.

A. AFRICA'S CULTURE AND ANCIENT TRADITIONAL KNOWLEDGE

Africa today, more than ever before, is known for its traditions, which have stood the test of time to the present generation. Africa's traditional knowledge is enriched by its ancestral customs and unique myriad of languages, each of which contains specific ancient knowledge that constitutes a source of precious wealth, not only for Africa but for the entire humanity. It is enriched by its indigenous peoples, its oral culture perpetuated by the story-tellers, its proverbs, myths and legends[2], its totems[3], sorcerers and patriarchs, and its connections with the dead through funerary ceremonies. It is further enriched by its animism at the source of its specific spirituality, its pharmacopoeia[4], whose proven effectiveness has been preserved by healers to present generations by its unalterable, inexhaustible arts and crafts, its folklore, its songs, its dances, its communitarianism, and the communication which characterizes its people. To this day, Africa still has many assets and treasures for mankind.

It is therefore imperative, in the wake of the foregoing, to protect such traditional knowledge and traditional cultural expressions, which are of value to the whole of mankind. It is well known that African tradition is packed with provisions and laws for all stages of life: birth, adolescence, adulthood, old age, death and beyond, not to mention laws for women, men, marriage, work and many more. Since ancient times, these have helped all members of a community to live out their time in an acceptable manner and in conformity with societal norms and values, and to preserve the species.

II. BACKGROUND INFORMATION ON TRADITIONAL KNOWLEDGE (TRADITIONAL MEDICINE) IN ZAMBIA

During the colonial period, the era of mostly colonial superialism and imperialism, traditional medicine

* **Mr Ackim Lungu** (Zambia) graduated from Copperbelt University of Zambia with a Bachelor of Science Degree in Marketing, and was best student in a class of 20. In addition, he obtained a Masters degree in Intellectual Property from the Africa University in Zimbabwe. He has worked as a Monitoring and Evaluation Officer at a non-governmental Thandizani Community-Based Organization in Zambia. Furthermore, he has worked on government appointment as a Traditional Affairs Officer in Zambia. Currently, he is a lecturer of Intellectual Property and Business Studies at the University of Lusaka. He is an active participant in matters of intellectual property at both national and international levels. He was recently inducted to the Association for the Advancement of Teaching and Research on Intellectual Property Law.

[1] A drug of dependency is defined in the 1981 Act as any fresh or dried part of the plant specified in the same Act.

[2] Legends are stories of heroes in the past.

[3] Totems are beings, object, or symbol representing an animal or plant that serves as an emblem of a group of people such as a family, clan, group, lineage, or tribe, reminding them of their ancestry (or mythic past).

[4] Pharmacopeia (literally, 'drug-making'), in its modern technical sense, is a book containing directions for the identification of samples and the preparation of compound medicines, and published by the authority of a government or a medical or pharmaceutical society.

was denigrated[5] with the advent of Christianity and other religions mainly discouraging the use and practice of traditional knowledge. After independence in 1964, the Zambian Government did not enact legislation to regulate traditional medicine or other traditional cultural expressions (TCEs), nor was a clear policy on the practice of traditional medicine (TK) and traditional cultural expressions (TCEs) postulated. Nevertheless, traditional medicine and cultural expressions continued to be practiced and were tolerated by the authorities. Currently, herbal medicine, naturopathy, traditional Chinese medicine, reflexology, spiritualism, and other forms of medicine and cultural ceremonies are practiced in Zambia. Both Zambian and foreign nationals use and practice traditional and complementary/ alternative medicine with mainly Zambians practicing other forms of cultural expressions other than traditional medicines.

A. Statistics on Traditional knowledge (Traditional Medicine) in Zambia

According to the Pharmaceutical Regulatory Authority (PRA)[6] of Zambia, at least 70 per cent of Zambians use traditional medicine to treat and also cure various ailments. In view of the foregoing, we can deduce that traditional and complementary/alternative medicine is used and accepted by a great majority of the population in the country, regardless of ethnic, religious or social background. We can further construe from the statistics of the Pharmaceutical Regulatory Authority of Zambia that 70 per cent of the Zambian population presents a potential market for traditional medicine. According to the records of the Traditional Healers and Practitioners' Association of Zambia (THAPAZ), there are more than 35,000 members of the Traditional Health Practitioners' Association of Zambia, founded in 1978, and thousands of non-members. Therefore, the ratio of traditional healers (registered with THAPAZ) to the whole population stands at 1:371 compared with a ratio of one medical doctor to 13,000 people. We can conclude from this and concur with the Pharmaceutical Regulatory Authority of Zambia that the use of traditional medicine in Zambia is rife and widely accepted among Zambian communities.

B. Regulatory situation

The Government of the Republic of Zambia currently recognizes traditional and complementary/alternative medicine and there are national policies on traditional and complementary/alternative medicine. THAPAZ reviews and registers traditional practitioners for practice and licensing. Although there are no official regulatory measures for recognizing the qualifications of practitioners, policymakers acknowledge that plans are underway to develop such regulations to make the practice more legitimate. Currently, traditional medicine and complementary/alternative medicines are neither integrated with allopathic medicine nor with the national health system. However, Traditional Birth Attendants and Community Health Care Workers practice at the level of primary health care. The National Drug Policy[7] has an entire chapter on traditional medicines, which discusses material medicine but not the practice of traditional medicine. As a result of the foregoing, traditional and complementary/alternative medicines are not covered by any health insurance in Zambia. As a consequence, the importance of traditional medicine in terms of its potential economic benefit in poverty alleviation to practitioners and disease reduction in rural communities is relegated from national development.

C. Education and training

Currently in Zambia, there is no formal training in traditional or complementary/alternative medicine at any allopathic training institutions. However, this knowledge is often transmitted from generation to generation through storytelling and African unguided learning. This has so far survived years through such transmission up to the present generation. The Africa Regional Intellectual Property Organization (ARIPO)[8] Swakopmund Protocol also recognizes traditional knowledge as knowledge that is distinctively associated with a particular community, collectively generated by such community and transmitted from generation to generation. The Protocol, in recognition of the intrinsic value of such knowledge, provides for the protection of such knowledge in member countries, including Zambia.

[5] 'Denigrated' means looked down upon or to belittle or disparage the character of something or someone or to defame someone or something.

[6] The Pharmaceutical Regulatory Authority of Zambia is a body established by statute in Zambia that is charged with the responsibility to regulate all pharmaceutical products and associated products, including the use of traditional medicine.

[7] National Drug Policy is a policy establishing an autonomous Pharmaceutical Regulatory Authority (PRA) responsible for the general administration of medical drugs in the country, including regulation of supply and the enforcement of drug-related laws.

[8] African Regional Intellectual Property Organization is a regional intellectual property organization for English-speaking African countries that deals with the registration of industrial property under the mandate from member States.

D. ZAMBIA'S SITUATION ANALYSIS

Zambia, being a multicultural country with about 72 ethnic groups[9], has vast traditional knowledge in both traditional medicine and traditional cultural expressions. Rural communities, through their traditional leadership, are mostly the custodians of traditional knowledge and such knowledge ordinarily belongs to those particular societies. Generally, in Zambia, rural communities are associated with high poverty, as well as unemployment, because such communities are highly dependent on subsistence farming and natural factors such as good soil and rain. This has for a long time proved to be and still remains an unsustainable means of livelihood for rural communities. In view of this, there is need to supplement the foregoing with other economic means and undertakings such as harnessing and marketing traditional medicines for the economic benefit of the holders. This is in view of the potential market that already exists in Zambia. Though vast traditional knowledge resides in rural communities, there is still need for a means to harness and derive economic benefits from such knowledge. This can be further reinforced with appropriate international instruments and domestic laws to avoid misappropriation of such traditional knowledge to individuals or groups that are not the owners of such knowledge. This in turn gives society protection for the exploitation of their knowledge. In her concluding remarks on the eighth session of the Intergovernmental Committee on Traditional Knowledge, Genetic Resources and Folklore, Ms Elizabeth Mulenje, a Traditional Chief, said that there was an urgent need to have an international binding legal instrument that would help prevent misappropriation of traditional knowledge to enable local and mostly rural communities to commercially exploit their knowledge.

In the recent past, in Zambia, there has been a proliferation of Chinese herbal medicines as food supplements and traditional medicine for various ailments. Against this background, Zambia is endowed with a lot of natural resources and biodiversity. In view of this, rural communities can effectively market Zambian traditional medicines and commercialize them for the economic benefit of the owners of such traditional knowledge in the medicine markets. However, there are factors that discourage the foregoing. Certain parts of the Zambian urban environment have had a bad perception attached to traditional medicine and hence denigrated it. This was generally in the wake of the influence of religion against traditional forms of medicine and cultural expressions, which were consigned to rejection as evil practices.

In view of the need to economically empower local people, mainly rural communities, and avoid the misappropriation of traditional knowledge and further avoid biopiracy, there have been debates at the World Intellectual Property Organization (WIPO) General Assembly. These are with regards to the need to provide protection for traditional knowledge in traditional medicines and traditional cultural expressions. The Nagoya Protocol, which was born out of the tenth session of the Convention on Biological Diversity (CBD), to which Zambia has not acceded, aims to protect against, *inter alia,* biopiracy. The Protocol proceeds from the premise that local people should benefit from the various plants which contain sources of traditional medicine and promote access and benefit-sharing agreements. Furthermore, ARIPO formulated the Swakopmund Protocol to ensure the protection of traditional knowledge. This further gives insight on how the local people, who are the owners of such traditional knowledge, can benefit economically.

In the wake of such efforts to provide adequate protection to the owners of traditional knowledge, Zambia needs first and foremost to accede to the foregoing Protocols in order for rural communities to begin to benefit economically from their traditional knowledge in medicines, especially through protection. Commercialization of traditional medicines would supplement the current financial vulnerability of the subsistence farming industry, which is the current and arguably only preoccupation for rural communities. Zambia, as a country, stands to benefit significantly from the foregoing through income generated and other forms of development that would accrue to the local communities. In echoing the foregoing argument, THAPAZ's president, Rodwell Vongo[10], urged the Government to help traditional healers financially in order to help train people in traditional medicine. Furthermore, Dr Vongo stated that traditional medicine was a sleeping giant in Zambia, which would bring billions of Kwacha to the nation if the Government invested in it.

Emphasizing the appeal from THAPAZ's president and also learning from countries such as India, China and South Africa, which have invested a substantial amount of money in traditional medicine (Zambia country profile 2010), Zambian communities stand to benefit greatly from the proper use and commercialization of their traditional knowledge. It is, therefore, important for the Zambian

[9] Tribes that occupied Zambia prior to independence of the country in 1964.

[10] Rodwell Vongo is the President of the Traditional Healers and Practitioners Association of Zambia, an association that oversees the registration of traditional healers and practitioners in Zambia.

Government to invest in research like the foregoing nations. Taking the Sondashi Formula[11], which is now undergoing clinical trials as a possible cure for HIV/AIDS as an example, policymakers need to awaken to the fact that considerable economic benefits can be derived from traditional knowledge. Though the Government has shown some interest in the foregoing formula, which can be lauded as a good move, such interest alone may be just a drop in the ocean as many other potential medicines are left unnoticed due to lack of political will. The Southern African Institute for Biosciences recently concluded a test on the Sondashi SF 2000 formula and Dr Maharaja stated that:

> To show that it can produce the same ingredients and also to show that it has some biological effects against HIV, which has been demonstrated to this point. The next step before you could actually register such a product is to do clinical. Studies to show that it is safe in humans, and that's where the capsules will be now evaluated in a clinical setting.

He said capsules made from the herb had already been developed to improve patient compliance, and as a refined form of the traditional preparations Dr Ludwig Sondashi was initially using. Dr Maharaj stated that the Centre for Scientific and Industrial Research (CSIR) was in the process of signing an agreement on the issues to do with intellectual property and benefit sharing between all the partners involved, namely the CSIR, Dr Sondashi and the Zambian Government, whom he said were partially sponsoring the clinical study.

According to THAPAZ, many more traditional healers can help with the cure of diseases such as tuberculosis, cervical cancer and prostate cancer among others.

III. LESSONS FOR POLICYMAKERS IN ZAMBIA

This section of the article endeavours to examine some of the lessons that can be drawn and possibly implemented by policymakers in order to harness the potential traditional knowledge has in improving the lives of its holders by providing financial benefits.

A. Ratification of the Swakopmund and Nagoya protocols

The Swakopmund Protocol was developed by ARIPO, of which Zambia is a member. The Protocol seeks, *inter alia*, to protect traditional knowledge and traditional cultural expressions or folklore against any misappropriation. Furthermore, the Protocol clearly outlines the procedure for access and benefit sharing of such traditional knowledge. Since Zambia has not acceded to the Protocol, it makes Zambia's traditional knowledge open for exploitation without the owners'—mostly rural people—permission. The current situation will not help rural communities. In the Development Agenda of the country, the Government strives to halve poverty levels by 2015. Mostly, poverty levels, according to the central statistical office of Zambia (CSO)[12], are rife in rural communities of the country than in the urban areas. The only means that the Government has in the past used is to encourage subsistence farming, which in most instances has proved futile in terms of poverty alleviation. Paradoxically, most of the country's traditional knowledge, which has potential for poverty alleviation if commercialized, is in the same rural communities.

In view of the foregoing, the Government of the Republic of Zambia should ratify both the Nagoya and ARIPO Swakopmund Protocols, which will be able to protect indigenous knowledge against misappropriation, as was the case with the Hoodia[13] extract. Furthermore, policymakers should develop appropriate policies, as well as a regulatory framework, that will be able to help rural communities develop and effectively market their traditional knowledge.

B. Invest in traditional knowledge

Against the above mentioned, the Government needs to realize the importance of traditional knowledge with particular reference to the Sondashi Formula, which is undergoing trials for possible curing of HIV/AIDS. In realizing that traditional medicine is coming to the fore as an alternative or complement to conventional medicine, policymakers need to come to the fore as well and invest in extensive research of traditional knowledge, so as to unearth its potential and commercialize successful research findings for the benefit of all stakeholders. Generally, Zambians are urged to take advantage of the availability of Chinese natural herbs to treat various ailments, even as they use conventional

[11] This is a herbal remedy developed by the former minister of Justice in Zambia, Dr Ludwig Sondashi, which is a mixture of four different herbs with demonstrated properties of curing the HIV virus in HIV/AIDS positive patients.

[12] CSO is the central Bureau that collects information on all demographics and other data in Zambia.

[13] The case of the Hoodia Hunger suppressant plant used by the San people in the Kalahari Desert.

medicines though the country is endowed with rich knowledge in medicine that has remained untapped. Therefore, extensive investment needs to be channelled towards harnessing the potential of traditional medicine for the benefit of rural communities and the country as a whole.

C. Provide Marketing Training So That Traditional Knowledge/Medicine Can Easily Be Marketed

Successful awareness of traditional knowledge alone may not be enough for rural communities to derive benefits from traditional knowledge. This should be coupled with the need to train rural communities on how best they can brand and market traditional knowledge for it to have market acceptance. Much as people might be alive to the fact that traditional medicine exists in the country, it has no benefit until there is successful commercialization of traditional medicine. Policymakers can provide a platform and help traditional knowledge holders to effectively market their products.

D. Effective regulatory framework for traditional knowledge

In order to give more legality to traditional knowledge and instil confidence in the owners and the users of traditional knowledge, it is imperative for policymakers to come up with an appropriate regulatory framework to oversee the practice of traditional knowledge in the country. Though currently the Government acknowledges traditional healers and practitioners of Zambia, it would be of essence if there was a policy to effectively regulate the foregoing, thereby giving legality to the owners of knowledge and preventing misappropriation or 'counterfeiting' of such knowledge.

IV. CONCLUSION

It is a well-established fact that rural communities in Africa are the most affected in terms of levels of poverty. Zambia, in particular, has most of its population in rural areas, which is predominantly characterized by subsistence farming that relies on natural factors such as good weather and rain. It is the wish of the Government of Zambia to diversify the economy too and come up with alternative sustainable means to alleviate poverty in the country, especially in rural communities. Against this background, given the potential that traditional medicine has in improving lives in rural populations, it is imperative that policymakers tap into this knowledge. There is need to effectively harness the use of traditional knowledge for the economic benefit of the country and humanity. The value of traditional knowledge need not be emphasized, as evidenced by the Sondashi SF formula[14], which has indicated properties for becoming a possible cure for HIV/AIDS.

BIBLIOGRAPHY

African Regional Intellectual Property Organization (ARIPO) Swakopmund Protocol 2010 on the Protection of Traditional Knowledge and Expressions of Folklore

Commercial application of the Hoodia

Kaori Sugishita, August 2009, volume 79, issue 03, Traditional Medicine, Biomedicine and Christianity in Modern Zambia

National Drug Policy, Pan African News Agency, Dakar Musengwa Kayaya 1999

National Intellectual Property Policy, Ministry of Commerce, Trade and Industry (MCTI), (Government printers, Lusaka Zambia 2010)

Pharmaceutical Regulatory Authority of Zambia, Guidelines for the Application for Registration of Herbal Medicines, first edition in accordance with Act no. 14 of the 2004 Pharmaceutical Act

South Africa's Council for Scientific and Industrial Research on Biosciences

The Pharmaceutical Regulatory Authority of Zambia (PRAZ) Annual Bulletin 2010

The Laws of Zambia Volume (viii) (Government Printers Lusaka Zambia 2000)

WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, eighth session Geneva, 6-10 June 2005, experiences from Zambia

Zambia Country Profile, Central Statistical Office 2010 National Economic Survey

Business Monitor, 2012, Ministry of Commerce Trade and Industry (MCTI) (Government printers, Lusaka Zambia)

[14] Sondashi SF 2000 formula is a herbal formula which is claimed to demonstrate properties that can cure HIV/AIDS.

CONTACT PERSONS

Ms Martha Chikowore Training Officer - WIPO Academy World Intellectual Property Organization (WIPO) Tel: +41 (0)22 338 8585 Fax: +41 (0)22 740 1417 Email: martha.chikowore@wipo.int	Mrs Karla Brepsant Publications Assistant Intellectual Property Division World Trade Organization (WTO) Tel: +41 (0)22 739 5496 Fax: +41 (0)22 739 5790 Email: karla.brepsant@wto.org

World Trade Organization (**WTO**)
Rue de Lausanne 154
CH-1211 Geneva 21
Switzerland

Telephone:
+41 22 739 54 96
Fax:
+41 22 739 57 90
Email:
ipd@wto.org

www.wto.org

World Intellectual Property Organization (**WIPO**)
34, chemin des Colombettes
P.O. Box 18
CH-1211 Geneva 20
Switzerland

Telephone:
+41 22 338 91 11
Fax:
+41 22 733 54 28

www.wipo.int

ISBN: 978-92-870-3938-5

