J. Equity Sci. & Sust. Dev.

Journal of Equity in Science and Sustainable Development



Full Length Research Paper

Intellectual Properties and Sustainable Development Goals; Analysis of 2030 Agenda in Promoting Intellectual Property Rights

Vol. 3(1):100-111

Article Number:JESSD3.5.2018 ISSN 2523-1901(Online) Copyright © 2019

Email: jessd@mwu.edu.et

URL: http://197.156.115.18/index.php/jessd

Wakgari Dulume

LLM candidate at Arsi University, Researcher, member of Editorial Committee of Oromia Law Journal at Oromia Justice Sector Professionals Training and Legal Research Institute; Email: <u>maccaatuulamaa@gmail.com</u>; Phone +251911085122

Received 3May, 2018; Accepted 10 October, 2018; Published January, 2019

Abstract

Intellectual Property has existed for decades, even centuries in some instance; with the purpose of promoting social welfare through novelty and research activities. Intellectual property rights have been and more importantly became economically and politically important than they were nowadays. Intellectual Property is becoming crucial economic development in modern world; particularly in developed countries. The 2030 Agenda for sustainable development also included importance of Intellectual Property. The paper analyzed the place of Intellectual Property in the 2030 Agenda with particular reference to goal 17 of Sustainable Development Goals. The paper employed gualitative method: mainly review of relevant literature on Intellectual Properties and Sustainable Development Goals. The 2030 Agenda document, mainly goal 17 is discussed in detail. The article argues protecting intellectual property promote innovation and technological development. The finding claims 2030 Agenda recognized intellectual property protection encouraging North-South and South-South partnership for its promotion; particularly to enable developing and least developed countries. The agenda seems to recognize one size fits all approach does not work in intellectual property protection; as different development stage require different intellectual property protection system. Thus, developing states can enjoy flexibility of loose intellectual property protection system to promote technological transfer and innovation. More importantly, developing policies that integrate intellectual property, capacitating individuals and groups on invention is required before going for strong intellectual property protection.

Key Words: Intellectual property, Intellectual property right, Sustainable development goal

^{*}Corresponding author Email: <u>maccaatuulamaa@gmail.com</u> Author agrees that this article remain permanently open access

Abbreviations

OECD=Organization for Economic Cooperation and Development; IP=Intellectual Property; IPRs=Intellectual Property Rights; WIPO=World Intellectual Property Organization SDGs= Sustainable Development Goals; MDGs=Millennium Development Goals; FDI=Foreign Direct Investment; RD=Research and Development; LDCs=Least Developed Countries; TRIPS=Trade Related Intellectual Property Rights; CDIP=Committee on Development and Intellectual Property; STI=Science Technology and Innovation; TFM=Technology Facilitation Mechanism; AAAA=Addis Ababa Action Agenda; UNCTD=United Nations Conference on Trade and Development

Introduction

Convention Establishing World The the Intellectual Property Organization (WIPO), concluded at Stockholm on July 14, 1967 lists includes Intellectual Property (IP). what According to Article 2(viii), IP shall include rights relating to: literary, artistic and scientific works, performances of performing artists, phonograms and broadcasts, inventions in all fields of human endeavor. scientific discoveries. industrial trademarks, service marks designs, and commercial names and designations, protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields." Different dictionaries have also defined IP. For instance, Merriam-Webster Dictionary defined it as "property (as an idea, invention, or process) that drives from the work of the mind or intellect." The well-known law dictionary Black Law Dictionary defined intellectual property as "A category of intangible rights protecting commercially valuable product of human intellect." Collins Dictionary of Law defined it as "a convenient term to describe various parts of the law that have the effect of protecting the products of the imagination and intellect. It covers, generally, COPYRIGHT, PATENTS, designs, REGISTERED DESIGNS, TRADEMARKS, know-how and PASSING OFF." In general, the definition of IP given by WIPO, Merriam-Webster or Black Law Dictionary revolves around creations of mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce. A kind of law that reward and protect intellectual property laws reward the creators of most types of intellectual property by preventing others from copying, performing, or distributing those works without permission. The main purpose of this protection is to provide incentives for people to produce scientific and creative works that benefit society at large (WIPO, 2004). Now a day nearly all nations have laws protecting

such creation is intellectual property law. Thus,

intellectual property. However, some nations do not vigorously enforce intellectual property laws, making illegal copying, or piracy, a major problem. The term Intellectual Property Rights (IPRs) encompass numerous exclusive legal rights awarded to inventors or creators by government for a given period of time and territory in which the use of the creations is controlled by the rights holders (Dutfield, 2003). (IPRs are the rights awarded by society to individuals or organizations principally over creative works: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce (Esmail et al., 2002). The right given to the creator is the right to prevent others from making unauthorized use of the creation for a limited period. Basing on the categories of IP, the period of monopoly right granted to owner of IP may be 5 up to 50+ years.

Common description of intellectual property law often divides the subject into patent, copyright, trademark and trade dress and trade secret law (Dutfield, 2003). Conventionally, IP categorized as Industrial Property and Copyright (WIPO, 2016). Industrial Property includes patents for inventions, trademarks, industrial designs and geographical indications. Copyright covers literary works (such as novels, poems and plays), films, music, artistic works (e.g., drawings, paintings, photographs and sculptures) and architectural design (Esmail et al., 2002). Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs (WIPO, 1978). At international arena, policies toward protecting IPRs have seen profound changes over the past two decades (Carsten Fink et al., 2005). Rules on how to protect patents, copyrights, trademarks, and other forms of IPRs have become a standard component of international trade agreement. Accordingly, IP allows people to own their creativity and innovation in the same concept that they can own physical property. The owner of IP can control and be rewarded for its use. In principle idea is not protected; exceptionally elaborated ideas (not abstract idea is protectede.g. patent, business secret). So, in some cases, IP gives rise to protection for ideas; but in other areas more elaboration of an idea shall be proven before protection arise. For instance, patentee has to make public every aspect of his/her creation including inventive steps prior to gain patent document. In addition to the broadly known categories of IP explained above, currently technological developments are blurring to some extent and some hybrid sui generis systems are emerging which also deserve protection as intellectual property. To that end WIPO has convened at Geneva and passed resolution on element of a sui generis system that deserves intellectual protection focusing on traditional knowledge (WIPO, 2002). An example of sui generis that deserve protection is plant breeding.

Like many other systems of economic regulation, IPRs have a century going back history. For

instance protection of IP by law dates back to 1474 where the first patent law, for instance, passed in Venice with the intention to protect inventions after their use was demonstrated (Konde, 2004). Thus, patents for inventions have their origins in Renaissance Italy whose underlying purpose was to attract foreign engineers with the incentive of a 10-year monopoly right to their 'works and devices'. The next significant legislative development in patent law came in 1624 with the English Statute of Monopolies (Dutfield, 2003). Soon after independence, the United States enacted two patent laws in 1790 and 1793 which prevent awarding patent for importer of foreign invention and forbidding aliens from applying for patent respectively. The third law, the 1836 Patent Act was arguably the first modern patent law (Esmail et al., 2002). The main IPRs like patents and copyright took their modern forms in the nineteenth century at a time when Europe and North America were in the midst of rapid industrialization (Esmail et al., 2002). Internationally protection of IPRs was first addressed in treaties in the late 19th century. For example, the Paris Convention of 1883 dealt with patents and trademarks, and the Berne Convention of 1886 protected artistic and literary works among member countries. Since then, many additional international treaties have addressed IPRs. For instance in 1967, the Intellectual Property Conference held at Stockholm (Stockholm Conference) updated Berne Convention for the Protection of Literary and Artistic Works 1886 (Berne Convention) (Peter K. Yu, 2016). The conference ended up transforming the international intellectual property regime by creating the WIPO. Since then, the WIPO administers intellectual property treaties basing in Geneva, Switzerland.

There are contradicting views as to IP protection among countries (developed and developing). Advanced countries often referred as 'the North' in the literature since they fall within northern hemisphere advocates strong IPRs; while developing often referred as 'the South' because of their location in South hemisphere tend to have weaker IPRs. Despite contradicting view as to IP protection, IPR regime is recognized for its direct effect on economic development by encouraging innovation which in turn is the source of total factor productivity improvements. Developed countries advocate for strong IP protection to increase economic development while developing states have the otherwise view (against strong IP protection) (Maxwell et al., 2014). Scholars researched reasons of difference in their stand in IPRs protection and related with innovation capacity (Lai and Qui, 2003). Proponents of strong IPRs protection says the strengthening of IP should have contributed to transfer of technology via licensing agreements (Pedro and Maximiliano, 2007). On contrary, there is an argument that the strengthening of IPRs has made technology more expensive and difficult to access reaffirming some argument made at the TRIPS and the TRIPS-Plus Agreement. So, the North has a greater R&D capacity as well as larger market, which incite them for a stronger IPRs protection while the South lacks such capacity and if they go strong IP protection can reduce technology imitation which is detrimental to development. Recent literatures developed the middle path way out for IP protection system; like middle path theory that compromised classical and dependence theory regarding FDI for developing countries. Likewise recent literatures favor a position that IPR is not an all or nothing game. It emphasizes the importance of an individualized approach; the optimal level of intellectual property protection is contingent upon country specific factors (Chen et al., 2005); particularly level of development (technological ability). Accordingly, some level of stronger IPRs is needed when a country is capable to invent domestically thereby encouraging domestic firms' innovation.

The recent United Nations Sustainable Development Summit of 2015 marked the beginning of the Sustainable Development Goals (SDGs) era. As part of the 2030 Agenda for Sustainable Development, 17 goals have been released. These goals are: Goal 1) End poverty in all its forms everywhere; Goal 2) End hunger, achieve food security, and improve nutrition and promote sustainable agriculture; Goal 3) Ensure healthy lives and promote wellbeing for all at all ages; Goal 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; Goal 5) Ensure gender equality and empower all women and girls; Goal Ensure available and sustainable 6) management of water and sanitation for all; Goal 7) Ensure access to affordable, reliable, sustainable, and modern energy for all; Goal 8) Promote sustained, inclusive, and sustainable growth, full economic and productive employment, and decent work for all; Goal 9) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; Goal 10) Reduce inequality between and among countries; Goal 11) Make cities and human settlement inclusive, safe, resilient and sustainable; Goal 12) Ensure sustainable production and consumption patterns; Goal 13) Take urgent action to combat climate change and its impacts; Goal 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development; Goal 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; Goal 16) Promote peaceful and inclusive societies for SD, provide access to justice for all and build effective, accountable and inclusive institutions at all levels; Goal 17) Strengthen the means of implementation and revitalize the global partnership for SD. These SDGs replaced the Millennium Development Goals (MDGs); agenda that has come to an end after 15 years (Anita, 2015). While focus of the MDGs was on

eradicating poverty, the SDGs shed light on the need for an inclusive, long-term, and sustainable development process. Sustainable development can be implemented through technological development. Intellectual property rights, green technology transfer can also be implemented by intellectual property rights IPRs (OECD, 2012a). SDGs did not make IP self standing goal; rather incorporated IP under goal 17 of SDGs. Under goal 17th of the SDGs, UN urges countries [developed and developing] revitalize partnership to enhancing North-South and South-South relationship in helping developing countries move towards technological transfer and innovation. This mission is supposed to be promoted by protecting the intellects.

Material and Methods

The paper is based on literature review. An attempt is made to review relevant literature on IP and SDGs. Different documents, such as international conventions relating to IP protection, the 2030 Agenda for sustainable development document, treaties and scholarly articles are assessed with the aim of analyzing the place given to IP at international arena and in SDGs With aim of relating IP with SDGs; various literatures written on Sustainable Development Goals and WIPO as well as the role of IP for realization of 2030 Agenda for sustainable development has been reviewed. Therefore, its methodology is qualitative one; that focuses on analyzing international documents dealing with IP and SDGs particularly goal 17 of SDGs.

Discussions and Results

From the introduction of the first patent law in 1474, intellectual property rights and the demand for its protection has been increasing at alarming rate. At international community IPRs was first addressed by Paris Convention (1883) with the purpose of protecting industrial property in the widest sense, including patents, trademarks, industrial designs, utility models followed by Berne Convention for the Protection of Literary

and Artistic Works (1886). Since then, there are many additional international treaties that have addressed IPRs. Examples could be international conference held at Stockholm (Stockholm Conference of 1967) that established WIPO; Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms (1971), Brussels Convention Relating to the Distribution of Programme Carrying Signals Transmitted by Satellite (1974), WIPO Copyright Treaty (WCT) (1996), the Beijing Treaty on Audiovisual Performances (2012), Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled (MVT) (2013) and etc.

Now we are officially in the era of sustainable development following the international community's approval of SDGs in 2015 with unprecedented numbers of UN Member-states. The 2030 Agenda, which supposed to guide activities countries of this world did not, made IP a self standing goal. The aim of this paper is to investigating the place given to IP in the 2030 Agenda of sustainable development goal. In doing that the why for IP protection, its role for development more pertinently for realization of SDGs is discussed.

Why Protection for IP?

Intellectual property creates a legal means to appropriate knowledge. One characteristic of knowledge is that one person's use does not diminish another's and in economics expression this features of IP is called non-rivalries; (for example, reading this Article. Moreover the extra cost of extending use to another person is often very low or nil (for example, lending a book or copying an electronic file). From the point of view of society, the more people who use knowledge would be advantageous since each user gains something from it at low or no cost, and society is in some sense better off (Esmail *et al.*, 2002). Economists therefore say that knowledge has the character of a non-rival public good (Stiglitz et al., 1999). That is why different international treaties governed by WIPO makes some exceptions to the total prohibition of using intellectual property without authorization. The other aspect of knowledge, or products embodying knowledge, is the difficulty often intrinsic of preventing others from using or copying it. Many products, incorporating new knowledge, can be easily copied. Probably most products, with sufficient effort, can be copied at a fraction (albeit not necessarily small) of the cost it took to invent and market them. Economists refer to this latter characteristic as contributing to market failure (Esmail et al., 2002). If a product takes considerable effort, ingenuity and research, but can be copied easily, there is unlikely to be a sufficient financial incentive from society's point of view to devote resources to invention (Carsten Fink et al., 2005). Accordingly, protection for the intellectuals' creation is therefore the most important ways of addressing this market failure. Patents are one way of addressing such market failure. Patent protects by conferring temporary market exclusivities to patentees allowing producers to recoup the costs of investment in R&D and reap a profit, in return for making publicly available the knowledge on which the invention is based. Protection therefore is a bargain struck by society on the premise that, in its absence, there would be insufficient invention and innovation. This triggers the need for protection of IP.

Role of IP for Development

The IPRs systems may make an important contribution to the creative and innovative sectors of a country's economy by encouraging investment in R&D. This creates an intrinsic link between intellectual property and development. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) under its Art 7 reads as follows; "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations." From this one can conclude that IPRs is largely seen as an incentive to inventors. This assumption is based on the belief that a temporary monopoly use of the invention could enable inventors to recoup most of their investment.

According to Konde, most governments provide extra incentives, beyond IPRs to inventors acknowledging that the cost on inventing is much higher than any returns to be made by the inventor, and the invention will have greater value to society. Some of these profits or benefits may be ploughed back to stimulate additional innovation. It is argued that the disclosure requirement for instance in patents, play an important role in knowledge diffusion and promoting innovation. Such disclosure, which is mandatory in case of patent, may stimulate interest in other areas beyond the original research. Meaning when each and every step used in inventing a product is disclosed to society, there is possibility that another person come up with a new product more improved invention that enhances development. So, disclosure is for the benefit of society than inventor. As said above, disclosing invention to society can stimulate creativity. However, unless inventor is given the right to reap from his/her invention through short-time monopoly on the product, s/he may not be willing to disclose the knowledge embodied in the products which in turn hampers technological insights thereby adversely affecting development. In this view it is possible to argue that IP protection is best way for industrial development. In some markets and industries related to biotechnology and information technology, IP is used a measure of success because they primarily survive by continuously churning out new products and

services (Dutfield, 2003). Strong IP rules may therefore be essential to stimulating innovation. IP is also used as a bargaining chip in technology transfer and partnership deals. Firms or institutions may use some of their IP assets to gain access to other key IP assets owned by their competitors or pool their IP assets and form alliances or joint ventures. Such arrangements could accelerate commercialization of inventions and further development.

In spite of difference among scholars with regard to IPRs regime [one advocating stronger and other advocating weaker IPRs] IP has a role to play in development. Protecting IP encourages creativity and innovation thereby contributing to economic development through productivity using invented improvement technology. UNHCHR and WIPO, in their joint publication titled "Intellectual Property and Human Rights" concluded that "appropriate IP protection can contribute to the economic, social and cultural progress of the world's diverse population" (WIPO, 1998). However, IP protection benefits an economy depending on the level of a country's development, the availability of skilled labor force and technological infrastructure. Least developed countries (LDCs) and other developing countries with a very low absorptive underdeveloped technological capacity. infrastructure and limited skilled labor force do not drive benefit from stronger IP protection as good as developed countries (Laik, 2005). Yet, the IP system can encourage investment and innovation when it is designed in a balanced manner, taking into account the domestic socioeconomic factors (WIPO, 2010).

Empirical evidence suggests that IP protection contribute to economic development particularly Foreign Direct Investment (FDI) (Emmanuel et al, 2010). However, empirical evidence as to the role of IP protection in promoting innovation and growth remains inconclusive since economic growth/development could be achieved otherwise

(Barton et al., 2007). Evidence from East Asian economies such as Japan, South Korea, Taiwan, Hong Kong, Singapore, Malaysia, Thailand, Indonesia, and China's miraculous growth rate over the 1960- 1990 confirms that protection of IP is not the only means to development. Now days industrialized nations receive international protection from IP infringement and developing countries receive increases in trade, FDI, and technology generation and diffusion. The empirical study, which examined a diverse country panel from 1990-2005, confirm two hypotheses regarding IP: (1) IPR encourage technology transfer and (2) IPR stimulate domestic innovation (Walter et al., 2008) having economic values.

In general, there is no question as to the role of IP for development in spite of debate on standard [stronger or weaker] of IPRs protection. Living decisions as to standard of IPRs protection to policy makers, it is possible to argue that IP protection have role to play in development. However, policy makers may relay on recently developed literature that emphasizes on the importance of an individualized approach to level of IP protection. According to research published on journal of development economic level of IPRs protection is contingent upon country specific factors such as technological ability (Esmail et al., 2002). The research indicated Ushape curve on the development-IPR protection relationship. Thus, U-shape indicates that, at a low level of development, a reduction in IPR will encourage economic growth until a certain point; and at that point, an increase in IPR will encourage economic growth.

Place of IP in SDGs

In December 2015, the United Nations completed its cycle for the UN Millennium Development Goals, which were launched in September 2000 as part of the UN Millennium Declaration. UN then adopted 17 SDGs replacing the MDGs which sought to achieve sustainable development within the next 15 years. The recent UN Sustainable Development Summit in 2015 marked officially the beginning of the Sustainable Development Goals (SDGs) era. While the focus of the MDGs was on eradicating poverty, the SDGs shed light on the need for an inclusive, long-term, and sustainable development process. Leaders of 193 countries agreed on and set 17 SDGs to guide global action over the next 15 years. It is the first in the history of this world when such number of leaders reached consensus. The 2030 Agenda for Sustainable Development Goals take over where the MDGs before them left-off; and in many cases aim to finish the job left by MDGs adding SDGs assignments (Gurry, 2017).

Recognizing the implementation of SDGs can be facilitated through technological development, Nations launched Technology United а Facilitation Mechanism (TFM) which was established by the Addis Ababa Action Agenda (AAAA) in order to support the SDGs (UN, 2015). The United Nations inter-agency task team on science, technology and innovation for the SDGs will promote coordination, coherence and cooperation within the United Nations system on technology and innovation-related science. matters, enhancing synergy and efficiency, in particular to enhance capacity-building initiatives. The task force established for transfer of technology, remained an irreplaceable ingredient of the policy mix needed to improve the capacity of the LDCs to benefit from Science Technology and Innovation (STI). As pointed out in the 2030 agenda, high level political forum that supposed to comment on policies and other issues recommended countries to have coherence, harnessing the potential of science, technology and innovation policy that closes technology gaps. In the General Assembly resolution No 69/313 of 27 July 2015 on the 4th United Nations conference on the least developed countries importance of crafting policies that incentivize the creation of new technologies, that incentivize

research and that support innovation in developing countries is addressed. This seems to encourage developing countries to work on integrating science and technology policy with other polices. While it was recognized that the policy and regulatory framework for innovation extended well beyond intellectual property issues; it was stressed that the LDCs should take full advantage of the flexibilities available to them. We can find the said flexibility from the reading of TRIPS provisions. For instance in TRIPs agreement, pursuant to Article 66 (2) developed country members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to leastdeveloped country members in order to enable them create a sound and viable technological base. However, such commitment seems unsatisfactory. This could be understood form what has been said by participants of the United Nations Conference on Trade and Development (UNCTD). The need to address the inadequate level of implementation of Article 66.2 of TRIPS was highlighted at UNCTD pre-conference event for the 4th United Nations conference on the least developed countries held at Geneva, 27-29 October 2010.

The 2030 Agenda for sustainable development did not treat IP as self-standing goal. It rather put issues of IP and its promotion under goal 17th of the SDGs. The last section of 2030 Agenda for sustainable development is about the means of implementation. SDGs goal 17, demands the revitalizations of partnerships for the goals and technology transfer. It is under this section that issues of IP come to being the post-2015 development agenda [the 2030 development agenda]. Among five issues [finance, technology, capacity building, trade, and systemic issues] caught attention of international community under goal 17, one section is fully devoted to technology. In fact other issues such as finance, capacity building and trade have something to do

for the development of technology so as to facilitate realization of SDGs. For instance, target 6 of goal 17 want the enhancement of North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.

The document also envisaged the need for science and technology and innovation capacity building by 2017 particularly to enable LDCs fully use technology for their development activities [target 8 of goal 17]. At the same time developed countries are urged to promote the development, dissemination and diffusion transfer. of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed. This all in fact cannot be done without IP development and therefore, countries are asked to work on IP development. Target 16 of goal 17 pleaded to international community to work on the enhancement of Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships in order to mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries. Forum at which science, technology and innovation is supposed to be shared among multi-stakeholder so as to promote SDGs is launched to be held once a year for period of two days [paragraph 70 of the 2030 Agenda document]. Even though science and technology is dealt broadly under goal 17of SDGs, it however does not mean IP is relevant only for this goal. For instance, different SDGs, notably SDG 2 - Zero hunger; SDG 3 - Good health and well-being; by promoting pharmaceutical industries SDG 6 - Clean water and sanitation; by developing creative sanitary system; SDG 7 – Affordable and clean energy; by developing pollution free energy system that demands creation (wind energy); SDG 8 – Decent work and economic growth; SDG 11 – Sustainable cities and communities; SDG 13 – Climate action Innovation as a policy setting can be well promoted and assists realizing other SDGs through technological development (Gurry, 2017).

Moreover, WIPO on its part since forming agreement with UN in 1974 has been working on expertise and services in the context of its mandate to promote a balanced and effective international IP system for the economic, cultural and social development of all countries. The WIPO Development Agenda, which was agreed in 2007, raises many of the development-related concerns which are also central to the United Nations' Post-2015 development agenda. As part of its mandate and mission, WIPO works on how to lead balancing development and effective international IP system that enables innovation and creativity for the benefit of all across and is relevant to many of the SDGs. SDGs came into force only earlier in 2015 to end by 2030; the adoption of these goals provided a timely and important opportunity to think more deeply about IP and global development (Stiglitz et al., 1999).

Incorporation of the SDGs into WIPO's activities was indeed an important issue at the latest meeting of the WIPO Committee on Development and Intellectual Property (CDIP) in late October and early November 2016 (Catherine Saez, 2016). At that meeting, the CDIP explored the relationship between the SDGs and WIPO's mandate and strategic goals. CDIP considered SDGs-WIPO link. Accordingly, SDG 9 and SDG 17 are directly related to WIPO. SDG 9, (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and SDG 17 (Strengthen the means of implementation and revitalize the

Global Partnership for Sustainable Development) are IP related direct links of SDGs to WIPO activities. CDIP also listed some of SDGs that are relevant to WIPO's programmes and activities in CDIP document. These SDGs listed as relevant to WIPO programmes and activities were: SDG 2 ("End hunger, achieve food security and improved nutrition and promote sustainable agriculture"), SDG 3 ("Ensure healthy lives and promote well-being for all at all ages"), SDG 4 inclusive equitable ("Ensure and quality education and promote lifelong learning opportunities for all"), SDG 7 ("Ensure access to affordable, reliable, sustainable and modern energy for all"), SDG 8 ("Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all") and SDG 13 ("Take urgent action to combat climate change and its impacts"). The world bank in its publication on world development indicators made technological development as one indicator further relating IP development with economic development as advancing industrial sector is considered vital for development and manufacturing is key to long-term structural change, formal job creation, and the technology and innovation needed for productivity growth which in fact is unthinkable without promoting IP (World Bank, 2017). The lists of SDGs that can be promoted by IP development and WIPO's programmes and activities relevant to promote SDGs by CDIP tell us promoting IP is important for the realization of SDGs and attention given to IP in SDGs.

Conclusion

Development of IP dates back to medieval era. Since then IP has made immense contribution to economic development. Empirical evidence confirms vital role of IP protection for its development; indeed sustainable development since protecting and incentivizing intellects increases creation as well as diffusion of technology. Diffusion of technology in turns initiates and enables society for innovation that has great role for industrial/economic development. Thus, IP is considered as most important tool for rewarding inventors, protecting knowledge, assets and promoting innovation.

The transformative and ambitious 2030 Agenda for Sustainable Development that left no one behind is the most comprehensive document that replaced MDGs. We are now officially in the era of SDGs with 17 comprehensive development goals and 169 targets. In spite of treating IP as one independent goal, SDGs tried to link different SDGs to IP and how IP could promote these goals. Particularly target 6 of goal 17 is devoted to promote science and technology which is unthinkable without IP. WIPO, which established to administer and promote IP, identified SDGs that are relevant to WIPO's programmes and in CDIP document activities reaffirming importance of IP protection for the realization of SDGs. IPRs economic development is represented by U-shape curve. Which means, at a low level of development, a reduction in IPRs will encourage economic growth until a certain point; and at that point, an increase in IPRs will encourage economic growth. The extent to which IP could be used as a tool for industrial development is contingent on level of development (technological ability). Forming partnership is at the core of 2030 Agenda for realization of SDGs as whole and promotion of IP in particular. Therefore, it is important to take the following action to promote IP as envisaged in the 2030 Agenda for sustainable development.

Governments of developed countries are expected to honor their commitment; particularly transferring technology to developing and LDCs through North-South partnership and capacity building on technology.

It is good to work on importance of synergy and partnerships co-operative engagement between developed and developing nations to tackle problems concerning enforcement of intellectual property rights in developing countries.

Existence of industrial and economic policies is essential for building a viable technological base. Therefore, having deliberate government policies that stimulate investment in R&D is necessary. As such policies increases innovation and human capital development in public and private institutions.

Innovative capacity and investment in R&D determines IPR protection. Since different level of development requires different level of IPRs protection, it is good to have adaptive IPRs protection system; especially developing and LDCs.

Conflict of interest

There is no conflict of interest.

References

- Barton, J. H., Abbott, F. M., Correa, C. M., Drexl, J., Foray, D. and Marchant, R. (2007). Views on the Future of the Intellectual Property System, ICTSD Program on Intellectual Property Rights and Sustainable Development, International Centre for Trade and Sustainable Development, Geneva, Switzerland.
- Carsten Fink, Keith E. Maskus (2005). The International Bank for Reconstruction and Development/the World Bank, Intellectual Property and Development Lessons from Recent Economic Research.
- Emmanuel Hassan, Ohid Yaqub, Stephanie Diepeveen (2010). IP and Developing Countries RAND Europe A review of literature.

- Esmail, L. C., Kohler, J. C., Elliott, R., Secretariat, H. P. (2002). Commission on Intellectual Property Rights, Integrating intellectual property rights and development policy. Report of the commission on Intellectual Property Rights, 178. doi.org/10.1017/CB09781107415324.004.
- Graham Dutfield (2003). Literature survey on intellectual property rights and sustainable human development.
- Konde, V. (2004). Knowledge for development : A role for intellectual property in Africa *ATDF journal 3(3).*
- Kuashik Laik (2005). Role of Intellectual Property for Economic Growth, *Journal of Intellectual Property Rights vol.10*.
- Lai, E. and L. Qiu (2003). The North's Intellectual Property Rights Standard for the South. *Journal of International Economics* 59,1: 183-209.
- Maxwell, Alexi and David Riker (2014). The Economic Implications of Strengthening Intellectual Property Rights in Developing Countries. Journal of International Commerce and Economics. Published electronically November. http://www.usitc.gov/journals.
- OECD (2012a). Green Growth and Developing Countries Consultation Draft p 115 Committee on Development and Intellectual Property, "Compilation of Member State Inputs on SDGs Relevant to WIPO's Work", August 8, 2016, WIPO Doc. CDIP/18/4.
- Pedro Roffe, Maximiliano Santa Cruz (2007). *ECLAC* Project documents Collection Intellectual Property Rights and Sustainable Development P 19.
- Peter K.Yu (2016). Five Decades of Intellectual Property and Global Development; *the WIPO Journal.*
- UN (2015). United Nations Department of Economic and Social Affairs Financing for Development Office Addis Ababa Action Agenda of the Third International Conference on financing for development.

- Walter G. Park and Douglas C. Lippoldt (2008). "Technology Transfer and the Economic Implications of the Strengthening of Intellectual Property Rights in Developing Countries," OECD Trade Policy Working Papers 62.
- WIPO (1978). WIPO Guide to the Berne Convention.
- WIPO (1998). Intellectual Property And Human Rights; the proceedings of a panel by the discussion. organized World Intellectual Property Organization in collaboration with the Office of the United Nations High Commissioner for Human on November 9, 1998, to Riahts. commemorate the 50th anniversary of the proclamation of the Universal Declaration of Human Rights.
- WIPO (2002). Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore: Elements of A Sui Generis System for the Protection of Traditional Knowledge WIPO/GRTKF/IC/3/8.
- WIPO (2004). Intellectualproperty Handbook: Policy, Law and Use
- WIPO (2016). Understanding Industrial Property.
- World Bank (2016), World Development Indicators.
- World Bank (2017). Atlas of Sustainable Development Goals (2017). World Development Indicators. Washington, DC: World Bank. doi:10.1596/978-1-4648-1080-0.
- Yongmin Chen and Thitima Puttitanun (2005). "Intellectual property rights and innovation in developing countries," Journal of Development Economics 78 P 490.