# Assessing the policy and regulatory frameworks for fostering the markets of intellectual property and copyright patents

on digital technology products, and services in Mongolia

Lkhagvasuren Ariunaa



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# **Table of Contents**

AB	BREVIATIONS	9
EX.	ECUTIVE SUMMARY	10
1.	INTRODUCTION	11
1.1	Overview of ICT situation of Mongolia	11
1.2	Legal and regulatory framework	13
1.3	Methodology	15
2.	ANALYSIS OF EXISTING IP SYSTEMS AND REGULATIONS	17
2.1	Intellectual property office of Mongolia and related organizations	17
2.2	Legal and regulatory framework	18
2.3	IP related Laws and regulations related to digital technologies products and services	26
2.4	Systems used at IPOM	29
2.5	Some IP statistical information.	30
2.6	Intellectual property Processes	33
2.7	Economic circulation of IP works	34
2.8	Intellectual property of digital technology products and services.	34
2.9	Challenges faced by ICT sector stakeholders on IP	37
3.	ANALYSIS OF OTHER COUNTRY CASES	39
4.	KEY FINDINGS	44
5.	POLICY RECOMMENDATIONS WITH ACTIONS TO MONGOLIA BASED ON FINDING	3S 45
6.	ATTACHMENTS:	47
6.1.	List of the policy and regulatory documents of Mongolia	47
6.2.	List of graphs of Intellectual property in	47
Mor	ngolia	47
6.3.	IPRI 2021 Methodology	49

6.4.	List of resource materials	52
6.5.	List of interviewed people.	53
6.6.	Intellectual property summary	55
0.0.	The control of the co	
6.7.	Intellectual property processes in BPMN	57

#### **LIST OF FIGURES**

Figure 1-1. ICT infrastructure coverage throughout Mongolia	11
Figure 1-2. Screenshot from e-Mongolia platform. The front screen states "check if you are eligib	le for
receiving children's support money"	12
Figure 1-3. Organizational structure of the ministry	15
Figure 2-1. Systems used at IPOM	30
Figure 2-2. IP Fillings and Economic Growth(Set first available year to 1)	30
Figure 2-3. Patent applications	31
Figure 2-4. Patents granted	31
Figure 2-5. Patent applications and granted patents.	32
Figure 2-6. Total number of granted patents by year	32
Figure 2-7. Total registered computer software and database	35
Figure 2-8. IP designs filling by industry sector	35
Figure 2-9. Patents filling by industry sector	36
Figure 2-10. Trademarks fillings by Industry sector	37
Figure 3-1. Comparative chart – China, Korea, Singapore and Thailand from IPRI	39
Figure 3-2. Comparative table of Intellectual property rights - China, Korea, Singapore and Thailand	40
Figure 3-3. Comparative table of copyright protection – China, Korea, Singapore and Thailand	40
Figure 6-1. Patents in Force	
Figure 6-2. Utility model applications	
Figure 6-3. Trademark Application class count	
Figure 6-4. Trademark registration class count	
Figure 6-5. Industrial design class count	49
Figure 6-6. International Property Rights Index Structure	50
Figure 6-7. Process of patent application	
Figure 6-8. Process of copyright	
Figure 6-9. Process of trademarks and geographical indications	59

## **LIST OF TABLES**

Table 1-1. Summary of existing and newly approved laws	13
Table 2-1. Extract from The Constitution of Mongolia	
Table 2-2. Extract from IP related laws	
Table 2-3. Extracts from other laws related to IP	
Table 2-4. IP laws with reference to digital technologies products and services	
Table 6-1. List of interviewed people	
Table 6-2. Intellectual property summary	
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# **Abbreviations**

Abbreviations	Detailed description		
AMIPA	Association of Mongolian Intellectual Property Agents		
CIO	Chief Information Officer		
CP	Copyright		
CRM	Customer relationship management		
ERP	Enterprise resource planning		
ESCAP	Economic and Social Commission for Asia and the Pacific		
ICT	Information and communications technology		
IP	Intellectual property		
IPAS	Industrial patent automated system		
IPOM	Intellectual Property Office of Mongolia		
IPRI	Intellectual Property Rights Institute		
IT	Information technology		
ITTLLDC	International Think Tank for Landlocked Developing Countries		
MDDC	Ministry of Digital Development and Communications		
MGS	Madrid goods and services category		
MICA	Mongolian Institute of Certified Appraisers		
MIPPA	Mongolian Intellectual Property Protection Association		
MOSA	Mongolian Software Industry Association		
NITP	National Information Technology Park		
NSO	National Statistics Office		
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights		
UN	United Nations		
WIPO	World Intellectual Property Organization		

# **Executive Summary**

The report has been commissioned by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the International Think Tank for Landlocked Developing Countries (ITTLLDC).

The main purpose of this report is to analyze the current situations of the policy and regulatory frameworks, which will be used as foundational materials for fostering the markets of intellectual property and copyright patents on digital technology, products, and services in Mongolia.

The assessment has been conducted on policy and regulatory framework related to information and communications technology and intellectual property in Mongolia through literature review and interviews as well as discussion with the Mongolia experts of the Intellectual Property Office of Mongolia and business sectors as well as representatives of the Mongolian Institute of the Certified Appraisers.

The Digital Nation Program initiated by the Government of Mongolia includes E-Mongolia applications; approval of 5 new laws and related regulations; establishment of the Ministry of Digital Development and Communications (MDDC) from 1 January 2022; and other initiatives which have laid grounds for advancing digital transformation in Mongolia. To accelerate Mongolia's digital transformation, there is a need for "new development paradigms, policy, and regulatory frameworks in a more flexible, adaptive, and corroborative way".1 There are over 100 software development companies in Mongolia that should be encouraged and protected properly, which have produced valuable software for promoting almost all sectors of Mongolia and for supporting citizens, government organizations, and businesses.

One of the main leading offices is the Intellectual

Property Office of Mongolia (IPOM), whose primary mission is to protect intellectual property by improving industry laws, implementing state policies on intellectual property protection, legally securing intellectual property, protecting the legal rights and interests of their authors and copyright holders, and providing legal advice and services in this regard.

Mongolia approved four major Intellectual propertyrelated laws (Law on intellectual property, Law on patents, Law on copyright, and Law on trademarks and geographical indications) in 2020-2021. They identify software and database as intellectual property protected by the Law on copyright. A number of organizations are involved in the intellectual property application, registration, verification, and granting process, including the Association of Mongolian intellectual property agents, the Mongolian Institute of Certified Appraisers, Mongolian Intellectual Property Protection Association.

Even though the policy and regulation environment is favorable with established institutions in place, in order to adapt to rapidly changing digital environments and landscapes, there is an urgent need and gaps for Mongolia to strengthen legal and regulatory frameworks related to the digital technology product and services (for example, terminology); increase knowledge on intellectual property to all levels starting from secondary schools; tertiary institutions and at the policy level as well as specific sector such as judicial system; improve public advocacy and outreach of IP; improve the capacity of the IPOM staff, certified intellectual property specialists, specialized evaluators/appraisers. As the first step, it is recommended to build a task force team to promote the digital market with IP and patent protection in the MDDC.

<sup>&</sup>lt;sup>1</sup> Shaping our Digital future, Asia-Pacific Digital Transformation Report 2022, UNESCAP.

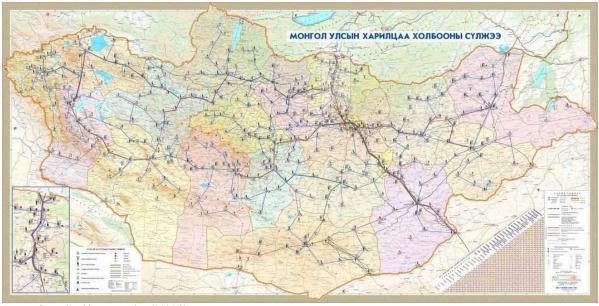
# 1. Introduction

#### 1.1 Overview of ICT situation of Mongolia

Mongolia has over 3.4 million citizens on a territory of over 1.56mln square km. The information and communications technology infrastructure stretched to more than 48,000 km connecting all 21 *aimags*<sup>2</sup>, 330 *soums*<sup>3</sup>, *baghs*<sup>4</sup>, and settlements. There are four major mobile operators – Mobicom, Unitel, Skytel, and G-mobile, which provide services to over 4.5 mln active mobile users. <sup>5</sup> The following graph represents the ICT infrastructure coverage.

Figure 1-1.

ICT infrastructure coverage throughout Mongolia



Source: https://mddc.gov.mn/mn/11316/

Social networks, such as Facebook, are not only used for "communications among people sharing a common interest, irrespective of location" but also as means for doing business – selling, trading, advertisements, etc.

Digital payment systems, such as Q-pay, MostMoney, and SocialPay, as well as mobile applications of the banks such as KhanBank, GolomtBank, Trade and Development Bank of Mongolia, XACBank, etc., have become an essential component of the everyday life of Mongolians.

There are over 100 software development companies in Mongolia, most established with 10+ years of experience in software system

integration. development. system complex information systems, business process engineering, mobile application development, etc. Enterprise architecture planning (ERP) solutions, including human resource management systems, accounting, and financial systems, customer relationship management (CRM), and project management information systems, are developed by these companies and are used by government organizations, business entities, and citizens of Mongolia.

There are a number of associations to unite software development companies, such as the Mongolian Software Industry Association (MOSA), the Chief Information Officers' (CIO) Club, User System

<sup>&</sup>lt;sup>2</sup> Aimag – is the administrative unit of Mongolia, close by definition to the province. There are 21 aimags in Mongolia.

<sup>&</sup>lt;sup>3</sup> Soum – is the smaller administrative unit of Mongolia, close by definition to the county. There are 330 soums in Mongolia.

<sup>&</sup>lt;sup>4</sup> Bagh – is the smallest administrative unit of Mongolia. There are over 1,500 baghs in Mongolia.

<sup>&</sup>lt;sup>5</sup> https://statistic.crc.gov.mn/#/

<sup>&</sup>lt;sup>6</sup> ESCAP-2022-IDD-FS-Asia-Pacific-Digital-Transformation-Report-2022, page 36.

Developers' Association. The MOSA has initiated and introduced the Mindgolia initiative, a hub of software and applications developed by Mongolian companies. The main purpose of Mindgolia is to provide a single window for software and to take the procurement of software into the next phase by reducing expenses and increasing productivity. Currently, it has a registration of over 100 companies and 180 products.

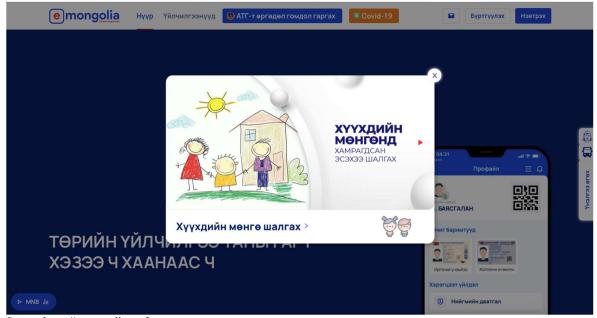
There is an increased tendency for new companies to be introduced in the market by developing mobile applications and solutions, including cloud-based. In addition, there is an extensive effort to support startup companies by government organizations and the private sector. The National Information Technology Park provides incubator services for startup companies, supporting them in developing their business plans, marketing strategy, staff training, etc. There is also an initiative of private companies, for example, the M-stars startup initiative supported by Unitel. This mobile operator already has a second intake of startup companies for their training.

With this increasing support, there is a tendency for increased software solutions and applications to be developed. One example is that the Government of Mongolia issued Decree No.39 on 1 February 2023, which approved the regulation of providing support for startup and software development business entities. The purpose of this regulation is to provide tax support from the state to the startup company registered as a member of the technology transfer center or joint office and the enterprise operating in the field of software production and development following Article 16.4.1 of the Law on Innovation, and to regulate other relations arising in connection in addition to that."

One of the main initiatives of the Government of Mongolia is the E-Mongolia platform, which was launched in 2020 and has become most appreciated during the COVID-19 situation. It has become one of the most highly used by citizens' public service platforms. E-Mongolia currently provides over 800 public services starting from simple certification issuance (such as birth certificate issued by the General Authority for state registration) and extended services, such as registration of children in kindergarten, receiving Covid-19 vaccination certification and is used by over 1.2 million of people and has already provided over 20 millions of services. 8

#### FIGURE 1-2.

A screenshot from the E-Mongolia platform. The front screen states, "Check if you are eligible to receive child support money".



Source: https://e-mongolia.mn/home

<sup>&</sup>lt;sup>7</sup> https://legalinfo.mn/mn/detail?lawId=16758495464901

<sup>8</sup> https://e-mongolia.mn/home

#### 1.2 Legal and regulatory framework

The Policy on Digital Nation was approved by the Minister of Digital Development and Communications on 18 May 2022, which outlined the directional objectives as

- 1) infrastructure readiness;
- 2) development of e-government;
- 3) information completeness, protection, and accessibility;
- 4) building creative citizens;

- 5) supporting innovation and production to develop a digital economy;
- 6) increase competitiveness, productivity, and effectiveness.<sup>9</sup>

The Parliament of Mongolia approved five new laws on 17 December 2021, which marked another phase for the development of ICT in Mongolia. Table 1-1 represents the summary of existing and newly approved laws.

Table 1-1. Summary of existing and newly approved laws

No.	List of laws	Date of	Objectives	Articles related to Intelectual
		approval	, and the second	property
1.	Law of Mongolia on Communicatio ns <sup>10</sup>	18 Oct 2001	This Law aims to regulate relations related to establishing, using, and protecting communication networks in Mongolia, promoting efficient and fair market competition, and providing citizens and legal entities with qualified products and services of information and communication technology. Since its approval in 2001 and up to now, 19 amendments have been made to this Law. The Parliament of Mongolia approved the last one on 1 Jan 2023. It has 8 Chapters and 33 Articles.	Chapter 2. Powers of state bodies on communications,  Article 6. Powers of the State central administrative body in charge of communication matters,  6.1.15.d. to protect intellectual property and copyright of information and communications technology products.
2.	Law of Mongolia on Public Information Transparency	17 Dec 2021	The purpose of this law is to ensure the right of citizens to seek and receive information in accordance with the grounds and procedures outlined in the law and to establish the legal basis of public information infrastructure, conduct state activities in an electronic form by creating a public information system, and to establish public supervision over government activities.	Chapter 2. Public information respondent and Public information category, Article 8. Open Information, 8.6 "the information respondent shall always keep the following information of its affairs transparent and open: 8.6.2. list of intellectual property rights that are owned; Chapter 2. Public information respondent and Public information category, Article 12. Making public information as Open data, 12.10. Open data shall not be published in the following cases: 12.10.2 "if the open data violates intellectual property rights.

 $<sup>^9</sup>$  https://mddc.gov.mn/wp-content/uploads/2022/07/A24-20220518-Цахим-үндэстэн-баримтлах-чиглэл-батлах-тухай 1658190818-1-1.pdf

<sup>10</sup> https://legalinfo.mn/mn/detail?lawId=523

https://legalinfo.mn/mn/detail?lawId=16390263044601

3.	Law of Mongolia on Digital Signature <sup>12</sup> ,	17 Dec 2021	The purpose of this law is to establish the legal basis for the use of electronic signatures by people and legal entities in the electronic environment, the legal and technical requirements for it, and the operation of the public key infrastructure. It has 8 Chapters and 35 Articles.	No clauses specifically related to IP included in this law.
4.	Law of Mongolia on Personal Data Protection <sup>13</sup> ,	17 Dec 2021	The purpose of the Law is to regulate relations with respect to the collection, processing, use, and security of personal data. No clauses specifically related to IP in this law. It has 8 Chapters and 32 Articles.	Article 3.3.2. Installation of audio, video, and audio-video recording devices for the protection of movable and immovable property owned, possessed, and used as well as oneself or one's family members' life and health.  Article 3.3.3. Use of one's biometric data for the protection of movable and immovable property owned, possessed, and used, and storage of its data.  Article 4.1.10. "Property information" means information on the property owned, possessed, and used by the data subject.  Article 4.1.11. "Personal data" means sensitive personal data and other information which can directly or indirectly identify or potentially identify a person, including parents' name, first name, date of birth, place of birth, place of birth, place of residence, address, location, citizen's registration number, property, education, membership, and electronic identifiers.  Article 6.2.3. Prevent damage and harm to the data subject's life, body, rights, freedom, and property, and protect its rights and legitimate interests.
5.	Law of Mongolia on Cyber Security <sup>14</sup>	17 Dec 2021	This law aims to regulate relations pertaining to establishing the system, principles, and legal framework in ensuring cyber security and safety, confidentiality, and accessibility of information within cyberspace and cyber	No clauses specifically related to IP included in this law.

https://legalinfo.mn/mn/detail?lawId=16390355252531
 https://legalinfo.mn/mn/detail?lawId=16390288615991
 https://legalinfo.mn/mn/detail?lawId=16390365491061

			environments. It has 5 Chapters and 25 Articles.	
6.	Law of Mongolia on Virtual Asset Service Provider 15	17 Dec 2021	The purpose of this Law is to regulate relations regarding registering virtual asset service provider legal entities, supervising their operations, and defining their legal rights and obligations. No clauses specifically related to IP included in this law. It has 4 Chapters and 17 Articles.	No clauses specifically related to IP included in this law.

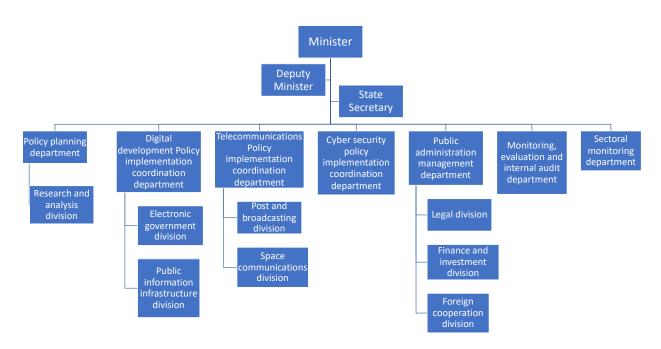
Source: https://legalinfo.mn/mn/detail?lawId=367

There is a National Committee on Digitial Development, which was established in 2019 by the Decree of the Prime Minister of Mongolia. The National Committee is headed by the Chief of the Cabinet Secretariat of the Government of Mongolia. It comprises the State Secretaries of the ministries and representatives of the software industry. The

Ministry of Digital Development and Communications was established on 1 January 2022 on the foundation of the former Communications and Information Technology Authority. The ministry has seven departments and eight divisions, presented below in Figure 1-3.

Figure 1-3.

Organizational structure of the Ministry of Digital Development and Communications



Source: www.mddc.gov.mn

#### 1.3 Methodology

The study used two methods: 1) conduct the situation analysis by reviewing existing documents and materials and 2) interview stakeholders involved. The respondents were the officials from

the Ministry of Digital Development and Communications, the Intellectual Property Office of Mongolia, and representatives of software development companies. (Please see <u>Attachment 5</u>

<sup>15</sup> https://legalinfo.mn/mn/detail?lawId=16390242606091

for the list of persons interviewed). The study guidelines were developed for both groups, and the

study findings were compiled and integrated into the final recommendations.

# 2. Analysis of existing IP systems and regulations

# 2.1 Intellectual Property Office of Mongolia and related organizations

The Intellectual Property Office of Mongolia has a long and outstanding history of over 70 years, initially established in 1945 as a State Commission for New Initiatives of the State Planning Department of Mongolia. Since then, it has been reorganized six times, becoming the Department of Inventions in the State C entral Office of Standards in 1960, the Invention and Rational Proposals' Division of the Science and Technology State Committee in 1971, the Patent and Trademark Office under the Ministry of National Development in 1990, Copyright Officer under the Ministry of Culture in 1993, combining the Copyright Office and the Patent Office and setting up Department of Intellectual Property as Implementing agency of the Government of Mongolia in 1996, the General Office of the Intellectual Property and State Registration in 2016.

Since 2018, by Decree No. 175 of the Government of Mongolia, the Intellectual Property Office has been set up as an implementing agency of the Government of Mongolia under the Ministry of Justice and Home Affairs.

Currently, it has 59 employees, which work in Industrial Property Rights Department, Copyright Rights Department, Administration Management Department, and Monitoring Departments and three divisions – finance division, patent and trademarks division, and Dornogovi aimag's <sup>16</sup> Zamyn-Uud soum's <sup>17</sup> Control and Inspection Division (www.ipom.gov.mn). The majority of the staff of IPOM have 2-5 years of experience working at IPOM.

The Intellectual Property Office of Mongolia (IPOM) protects intellectual property by improving industry laws, implementing state policies on intellectual property protection, securing intellectual property, protecting the legal rights and interests of its authors and copyright holders, and providing

legal advice and services. It has the function of improving the effectiveness and efficiency of the development of government policy, expanding advertising, and promoting and encouraging the activities of intellectual creators.

There is a National Committee on Intellectual Property, established by the Government of Mongolia Decree No. 350, issued on 22 September 22<sup>18</sup>. The Prime Minister of Mongolia chairs the committee, and the Minister of Justice and Home Affairs serves as a deputy. The members are:

- Minister of Education and Science,
- Minister of Culture,
- Deputy Minister of Health,
- State secretary of the Ministry of Digital Development and Communications,
- Chief Secretary of the Communications Regulatory Commission,
- Scientific Secretary of the Mongolian Academy of Sciences,
- President of the Mongolian National Chamber of Commerce and Industry (in consultation),
- Association of Mongolian Intellectual Property Agents (in consultation)
- Mongolian Intellectual Property Protection Association

The director general of the IPOM is a secretary for this Committee.

The Association of Mongolian Intellectual Property Agents (AMIPA)<sup>19</sup> was established in 1996 under the title of an Association of Mongolian Patent Attorneys. It was renamed AMIPA in 2007. Currently, it has 80 members: individuals, private companies, research and education institutions, and non-government organizations. It's a non-government organization to represent the Patent and trademark professionals of Mongolia to bring the IP to a new stage of development, encourage innovators, and respect authors' value and creative expression.

Zamyn-Uud is a border point with the People's Republic of China.

18

https://legalinfo.mn/mn/detail?lawId=16758279585841&show Type=1

19 http://amipa.org.mn/index.php/en/about-us/who-we-are

<sup>&</sup>lt;sup>16</sup> Aimag is the administrative unit of Mongolia equivalent to a province. There are 21 aimags in Mongolia. Dornogovi aimag is located in the south of Mongolia, bordering with People's Republic of China.

<sup>&</sup>lt;sup>17</sup> Soum is the smaller administrative unit of Mongolia equivalent to a county. There are 333 counties in Mongolia.

The Mongolian Intellectual Property Protection Association (MIPPA)<sup>20</sup> was established in 2017 by the initiatives of Mongolia's video content business development companies, such as Univision, Ddish, Ger Content, Mongol TV, Bloomsbury Pictures LLC, etc. It is a non-government and not-for-profit organization with the aims of raising the value of intellectual property in Mongolia, increasing public understanding and awareness, fighting against theft, illegal transmission and distribution of video content, and protecting the intellectual property, copyright, and other rights of its founders and members, and preventing violations of their rights.

The Mongolian Institute of Certified Appraisers (MICA)<sup>21</sup> unites over 300 specialized appraisers.

#### 2.2 Legal and regulatory framework

As shown in Table 2-1, two major articles were stipulated in the Constitution of Mongolia. In addition, four main laws govern Mongolia's intellectual property rights area.

Initially, it was established in 1997, but later in 2010, it was reorganized to set up the current MICA. The Institute is responsible for developing evaluation activities Mongolia, developing implementing national evaluation standards, protecting the interests of evaluators and evaluation organizations, strictly maintaining the rules of professional ethics, creating an evaluation database, providing information to members, and assisting in the continuous improvement of their knowledge and skills and implementing the functions of quality control and development of external relations. Currently, 20 certified appraisers specialize in Intellectual Property. They underwent thorough training at IPOM and were certified by IPOM.

Table 2-2 represents a summary of these laws. Furthermore, over 20 regulations and rules are being developed to ensure the enforcement of these laws.

In addition, several laws stipulate the intellectual property-related clauses presented in Table 2-3.

Table 2-1. Extracts from The Constitution of Mongolia

No.■	Chapter and Article number	Full sentence		
1.	Chapter One. Sovereignty of	1. The historical and cultural, scientific, and intellectual		
	the State	heritage of the Mongolian people is under the protection of		
	Article 7.	the State.		
		2. Intellectual valuables produced by the citizens are the		
		property of their authors and the national wealth of		
		Mongolia.		
2.	Chapter Two. Human Rights	The citizens of Mongolia are guaranteed to enjoy the following		
	and Freedoms	rights and freedoms:		
	Article 16.	8. the right to engage in creative work in cultural, artistic, and		
		scientific fields and to benefit thereof. Copyrights and patents		
		are protected by law.		

Source: https://legalinfo.mn/mn/detail?lawId=367

Table 2-2.

<sup>20</sup> https://mippa.mn/about-us

<sup>&</sup>lt;sup>21</sup> http://www.mica.mn/c/594575

No.	Name of the law	Date of approval	Main purpose	
1.	Law on Intellectual Property <sup>22</sup>	23 January 2020	The purpose of this law is to regulate common relations in connection with determining creations and works to be protected under intellectual property rights, intellectual property protection principles, the system and functions of intellectual property organization, and supporting the commercialization of intellectual property. It has 5 Chapters and 27 Articles.	
2.	Law on Copyright <sup>23</sup>	6 May 2021	The purpose of this Law is to regulate relations related to exercising and protecting copyrights and related rights regarding the works of science, literature, and art, and establishing the framework for the use of the works in order to support and develop creating products of culture and art. It has 8 Chapters and 58 Articles.	
3.	Law on Patent <sup>24</sup>	6 May 2021	The purpose of this law is to regulate relations in regards to granting patents for inventions, utility models, and product models, protecting the rights of inventors and patent holders, use of patented inventions, utility models, and product models, and to support innovative activities and industrial development. It has 9 Chapters and 56 Articles.	
4.	Law on Trade Marks and Geographical Indications <sup>25</sup> .	10 June 2010, amended on 6 May 2021 and 4 December 2015.	The purpose of this Law shall be to regulate relations in connection with ensuring the legal guarantees for trademarks and service marks (hereinafter referred to as trademarks) and geographical indications, protecting the rights and legitimate interests of their owners and users, and the ownership, use and disposal of trademarks and the use of geographical indications. It has 8 Chapters and 34 Articles.	

 $<sup>^{22} \</sup>underline{\text{https://www.ipom.gov.mn/source/legalinfo.mn\%20-\%20OHOУHЫ\%20\ThetaMЧИЙН\%20ТУХАЙ.pdf}$ 

<sup>23</sup> https://www.ipom.gov.mn/source/legalinfo.mn%20-%203ОХИОГЧИЙН%20ЭРХИЙН%20ТУХАЙ%20\_Шинэчилсэн%20найруулга\_.pdf

<sup>&</sup>lt;sup>24</sup> https://www.ipom.gov.mn/source/legalinfo.mn%20-%20ПАТЕНТЫН%20ТУХАЙ.pdf
<sup>25</sup> https://

https://www.ipom.gov.mn/source/legalinfo.mn%20-

Table 2-3. Extracts from other laws related to IP

No.	Name of the law	Date of approval	Main purpose	Chapters and articles with relations to IP
1.	Law on Technology Transfer <sup>26</sup>	7 May 1998 and amended on 4 December 2015	The purpose of this law is to determine the principles of technology transfer activities, evaluate the level of technology, determine the requirements for technology transfer activities, and regulate relations related to technology transfer. It has 4 Chapters and 18 Articles.	The chapters and articles related to IP: Chapter 1. Article 2. "Technology transfer law," specifies that "The technology transfer law shall consist of The Constitution of Mongolia, Law on patent and related legal documents which were produced in conformity with the current law"; Chapter 1. Article 3. "Legal terms," specifies that "technology is technology is a set of methods for implementing interrelated human, technical, informational and organizational activities aimed at transforming intellectual creations into consumer products"; Chapter 3. Article 8. "Subjects related to transfer technology," states that "the following will apply to transfer technology -patent, license and utility model"; Chapter 3. Article 14. "Registration of technology transfer contract," specifies that "the technology transfer contract should be registered with the organization responsible for intellectual property".
2.	Law on Competition <sup>27</sup>	10 October 2010	The purpose of this law is to identify the legal basis for and regulate relations connected with an organization to create conditions for fair competition in the market for entrepreneurs, prevent, restrict, and prohibit any activities of market monopoly and impeding competition. It has 5 Chapters and 27 Articles.	Chapter 1, Article 3, "Scope of the Law," states, "Activities undertaken under the legislation protecting intellectual property and its resulting circumstances shall not be considered impeding competition".
3.	Law on Innovation <sup>28</sup>	22 May 2012	The purpose of this law is to regulate relations related to the principles, management, organization, financing, state support, ownership,	Chapter 1, Article 3, "Legal terms," states that "new knowledge" means an intellectual work that can be used to solve economic and social problems resulting from scientific and technological activities and is protected by rights;

<sup>&</sup>lt;sup>26</sup> https://legalinfo.mn/mn/detail?lawId=477

<sup>&</sup>lt;sup>27</sup> https://legalinfo.mn/mn/detail?lawId=12

<sup>&</sup>lt;sup>28</sup> https://legalinfo.mn/mn/detail?lawId=8668

No.	Name of the law	Date of approval	Main purpose	Chapters and articles with relations to IP
			and use of intellectual property in economic circulation and establishment of the legal basis for innovation activities. It has 7 Chapters and 30 Articles.	Chapter 6 "Ownership and use of intellectual property created as a result of research works, carried out with state budget funding" Article 27.1 states that "The intellectual property created in the course of scientific research, experiments, and inventions funded by the state budget may be owned by citizens and legal entities who performed the work, unless otherwise specified in the science and technology project financing agreement, and the Government shall approve the procedure for ownership" Article 27.3 "An academic institution can contribute to the share capital of a start-up company after having its intellectual property evaluated by an authorized organization" Article 27.5 "If the original author's rights are licensed by a legal entity other than the researcher or academic institution that created the intellectual property, royalties will be paid to them" Article 27.6 "Without the permission of the central state administrative organization responsible for the development of high technology and national innovation, it is prohibited to use the intellectual property created as a result of the academic work carried out with the state budget funding to conduct production and services in foreign countries. Article 27.7 In case of production and service in a foreign country using the intellectual property executed with budget funding with the permission of the organization specified in Article 27.6 of this law, measures shall be taken to ensure and protect the intellectual property rights in that country in accordance with international agreements and conventions. Article 27.8 "In the event that the owner of the results of academic work carried out with state budget funding violates the provisions of Article 27.6 of this law, his right to own the intellectual property will be suspended, and the transfer and use of the intellectual property to the next owner shall be regulated in accordance with the procedure provided for in Article 27.1 of this law."  Article 27.9 "In the event of special circumstances and in

No.	Name of the	Date of	Main purpose	Chapters and articles with relations to IP
	law	approval		<ul> <li>Paid license</li> <li>Article 27.10 "In the event that the owner of the intellectual property creased as a result of the academic work carried out with the budget funding is an academic institution, the following obligations are assumed: <ul> <li>Distribution of royalties to authors and creators of intellectual property;</li> <li>From the royalty income from the use of intellectual property, the remaining income after the distribution of the royalties paid to the authors and creators of the intellectual property shall be spent only on innovation research and training;</li> <li>If the royalty income from the introduction of intellectual property in state-owned enterprises exceeds five percent of the annual budget of the owner of intellectual property rights, 75 percent of the excess income will be allocated to the state budget, and 25 percent will be spent by the owner on training, research, research, and technological development</li> </ul> </li> </ul>
4.	Law of Mongolia on Infringement	11 May 2017	The purpose of this law is to strengthen the justice system by considering acts or omissions that violate the law and the act of administrative norms issued in accordance with it as a violation, and by imposing punishment on the person and legal entity who committed it. It has 8 Chapters and 36 Articles.	Article 10.24. Violation of the Law on Metrology.  - 5. In case of incorrect selection, connection, and measurement of measuring instruments or changing the metrological parameters and software, a person shall be fined in the amount of one hundred and fifty units, and a legal entity shall be fined in the amount of one thousand and five hundred units.  Chapter 6. Violations against public ethics, public health, and sanitary rules.  Article 6.27. Violation of the Law on Personal Data Protection  - 2. If, as a result of the electronic processing of information without human intervention, the rights and freedoms of the owner of the information are violated, and a decision is made that may cause adverse legal consequences, the person shall be fined in the amount of five hundred units, and the legal entity shall be fined in the amount of five thousand units.  Chapter 8. Violations against public property and ownership rights.  - Article 8.3. Violation of the Law on Copyright.  1. If the violation of the copyright law does not lead to criminal liability, the objects used in the breach, illegally

No.	Name of the	Date of	Main purpose	Chapters and articles with relations to IP
	law	approval		
				obtained funds and income shall be
				confiscated, the activities shall be
				stopped, and the damages and
				compensation shall be paid to the person
				in the amount of 500 units, and the legal
				entity in the amount of 5000 units
				equivalent to MNT.
				2. If it is not criminal responsibility to
				change, destroy, illegally modify,
				distribute, import, or publicize the things
				written along with the identity of the
				right holder, the infringing goods, items,
				and illegally obtained income shall be
				confiscated. The person shall be fined for
				damages and compensation and shall be
				fined in the amount of one hundred units.
				The legal entity shall be fined in the
				amount of five thousand units.
				3. If the collective management
				organization collects payment over the
				approved payment amount, imposes an
				additional payment on top of the agreed
				fee, or fails to submit the reports and
				information required by the law within
				the appropriate period, the person shall
				be fined two hundred units, and the legal
				entity shall be fined two thousand units
				will be fined in the amount of MNT.
				4. If the collective management
				organization changed its activities to be
				for-profit, repeatedly failed to fulfill its
				obligations stipulated by the law or the
				cooperation agreement, operated in
				serious violation of copyright and legal
				interests, or continued to operate despite
				the decision to suspend the license to
				operate, the law illegally acquired funds,
				and income shall be confiscated,
				damages and compensation shall be
				issued, the permit shall be revoked, and a
				person shall be fined in the amount of
				five hundred units, and a legal entity shall
				be fined in the amount of five thousand
				units.
				- Article 8.4. Violation of the Law on
				Patent. 1. Products protected by patents,
				or products produced by methods
				protected by patents, manufactured,
				supplied to the market, imported, offered
				for sale, sold, used, or kept for these
				purposes, or the use of methods protected
				by patents, without the permission of the
				patent owner, are used in committing a
				violation, unless criminal liability is
				imposed, confiscation of things, illegal

No.	Name of the law	Date of approval	Main purpose	Chapters and articles with relations to IP
		ирргочиг		assets and income, cessation of activities, compensation for the damage caused, and a fine of 500 units for a person, and 5 thousand units for a legal entity."  - Article 8.5. Violation of the rights of trademark owners and users of geographical indications.  1. If the violation of the trademark owner's rights and user's rights of geographical provisions does not result in criminal liability, the objects used in the violation, the illegally obtained funds and income shall be confiscated, the activity shall be stopped, and the person shall be compensated for the damages and compensation in the amount of three hundred units. the legal entity shall be fined in the amount of three thousand units.  Chapter 10. Violations against the code of business activities. Article 10.22. Violation of the Law on Digital Signature Individuals will be fined to 150 units, equivalent to MNT and legal entities in the amount of 500 units, equivalent to MNT.
5.	Law of Mongolia on Asset Apraisal	17 June 2022	The purpose of this law is to determine and monitor the legal basis of asset appraisal and its organization and regulate relations related to the rights, obligations, activities, and creation of the valuation database of state organizations, legal entities, and citizens in this field.	Chapter 2. Asset Appraisal. Article 7. Regulation and methodology of asset appraisal. 7.2. The central state administrative organization in charge of financial and budgetary matters, alone or jointly with the state organization mentioned below, shall approve the asset appraisal procedures and methods that are consistent with the nature and purpose of the asset appraisal item: In cooperation with the central state administrative organization in charge of intellectual property issues, the procedures and methods of evaluation of intangible assets and intellectual property;

Here are the highlights of Law on Patents which implements several new significant regulations:

- The new law provides to grant patents for utility models, whereas previously, certificates were granted for utility models;
- Patentability criteria of inventions, utility models, and industrial designs are redefined in the sense that they are more clarified;
- Patent application filing procedures have become more detailed, particularly, formal examination of application is split into two stages: composition check of application documents and examination of application documents;
- Since terms in the Patent Cooperation Treaty (PCT), to which Mongolia is a party, are long. The need to bring the law into line with PCT, patent application filing terms, prior art search and substantive examination terms have been extended. Also, other relevant regulations have been brought into line with international treaties to which Mongolia is a party;
- Regulation of electronic filing of patent applications has been updated, while previous regulations were very vague;

- More clarified regulation is added concerning third-party observations (thirdparty objections);
- Regulation on international patent application filing procedures and licensing agreement regulations have become more detailed.

Overall, the new law has implemented more detailed regulations and precise terms of patent application filing, application examination, and patent granting procedures and has eliminated any previously existing inconsistencies and overlaps of regulations.<sup>29</sup>

Key points of the Amendments to the Law on Trademarks and Geographical Indications:

- 1. Terms and definitions are redefined in line with international treaties to which Mongolia is a party (such as TRIPS, the Paris Convention, Singapore Treaty on the Law of Trademarks),
- 2. New ground for refusal to register a trademark is added: if a mark (trademark) matches the name of a legal entity registered in state registration.
- 3. In connection with the regulation mentioned above, the IP Office (IP inspectors) is now authorized to access the state registration database to perform trademark examinations. This authority was not granted under previous regulations. Because of this, there were occasions where a name of a legal entity was registered as a different entity/person's trademark.
- 4. New stages of trademark examination are implemented. Now, after formally examining an application IP Office determines the filing date and publishes bibliographic data of a mark in the official journal. This regulation was not provided previously. After such publication, an interested party may submit an opposition to the IP Office. An interested party may now submit an opponent before a trademark is registered (while IP Office is performing a trademark examination) and after a trademark is registered. Whereas under previous regulations, an interested party could submit an opposition only after registering a trademark.
- 5. New ground for cancellation of a trademark is added: if a trademark was not used for five years without any good reason.

- 6. New regulations are introduced concerning an entity/person who was using in good faith a mark that is similar or identical to a registered trademark for the same goods or services before the latter's priority date.
- 7. Now trademark owners and holders of geographical indications are obliged to notify the IP office every time of their name change, address change, and transfer of ownership and apply to make relevant amendments to registration.

The Intellectual Property Organization of Mongolia (IPOM) has a strong connection with the World Intellectual Property Organization (WIPO) and is a signatory to the following international treaties and agreements:

- 1. Convention establishing the World intellectual property organization (1970);
- The agreement on Trade-related aspects of Intellectual Property Rights (TRIPS) (1989,1990);
- 3. Bern's Convention for the Protection of Literary and Artistic Works (1886);
- 4. Nairobi Treaty on the Protection of the Olympic Symbols (1981);
- 5. The World Intellectual Property Organization Copyright Treaty (1996);
- 6. The WIPO Performances and Phonographs Treaty (2002):
- 7. The Marrakesh Treaty to Facilitate Access to Published Works by Visually Impaired Persons and Persons with Print Disabilities (2013);
- 8. Paris Convention for the Protection of Industrial Property (1883);
- 9. Patent Cooperation Treaty (1970);
- 10. Singapore Treaty on the Law of Trademarks (1994);
- 11. Hague Agreement Concerning the International Registration of Industrial Designs (1925);
- 12. Madrid Agreement Concerning the International Registration of Marks (1891);
- 13. Protocol relating to the Madrid Agreement concerning the international registration of marks (1989);
- 14. Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks (1957);
- 15. Locarno Agreement Establishing an International Classification for Industrial Designs (1968);

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<sup>&</sup>lt;sup>29</sup> Review of the new Mongolian IP Law – Lehman Law. https://lehmanlaw.mn/blog/tag/intellectual-property/

16. Strasbourg Agreement Concerning the International Patent Classification (1971).

#### 2.3 IP related Laws and regulations related to digital technologies products and services

Table 2-4 refers to intellectual property-related laws regarding digital technologies, products, and services.

Table 2-4.

IP laws regarding digital technologies, products, and services

No.	Name of the	Date of	Relations to digital technologies, products and services
1.	law Law of Mongolia on Intellectual Property	approval 23 January 2020	<ul> <li>Chapter 1. General provisions, Article 3. Definitions of terms, 3.1.2 "Intellectual property database" means the compilation of paper and/or electronic information of intellectual property compiled, processed, and stored following unified classification, index, standard, documentary requirements, and relevant legislation;</li> <li>Chapter 1. General provisions, Article 6. Copyright and related rights. 6.3. An author may voluntarily register the information of his/her work in the database of copyright and related rights of the state administrative body in charge of intellectual property matters.</li> <li>Chapter 2. Intellectual property organization system, management, and functions, Article 12. Functions of the Intellectual property organization.</li> <li>12.1.7. To create a database of intellectual property registration and inform the public;</li> <li>12.1.15. To approve regulation on the conversion of intellectual property registration integrated database into electronic format, establishment and usage of the database, and ensuring its continuous operation, storage, safety, and security;</li> <li>12.2.1. To register copyright and related rights, issue and revoke certificates, and create a database of works at the request of the author, copyright holder, or associated rights holder;</li> <li>12.3.2. To keep a register of works related to industrial property rights, issue and revoke patents and certificates, and create a database;</li> <li>Chapter 4. Commercialization of intellectual property rights and government support. Article 21. License for intellectual property appraisal.</li> <li>21.3. The intellectual property organization shall issue a certificate, create a list of appraisers and establish a database of appraiser who has completed intellectual</li> </ul>
			property appraisal training and passed the examination Article 23. Intellectual property integrated database.
			o 23.1. Mongolia shall have an intellectual property integrated database.
			<ul> <li>23.2. Intellectual property database shall be available for electronic compilation and development format.</li> </ul>

			<ul> <li>23.3. The intellectual property integrated database shall use electronic technology and be protected from loss or destruction.</li> <li>23.4. The intellectual property integrated database shall consist of the archive of the original documents of the registration of works specified in Articles 6 and 7 of this Law and its electronic database.</li> <li>23.5. A person who uses the information of the Intellectual Property Integrated Database per his/her official duties shall be obliged to keep its confidentiality.</li> <li>23.6. The intellectual property organization shall back up the electronic intellectual property integrated database following the technology.</li> </ul>
2.	Law of Mongolia on Copyright	5 May 2021	Chapter 1. General provisions. Article 4. Definitions of terms. 4.1. The following terms used in this law shall be understood as follows:  4.1.6. "database" means creatively created systematic compilations of works and information other than computer programs that can be independently accessed in electronic or other network environments per the law;  4.1.7. "computer program/software" means work coded in a programming language, organized in a systematic manner with instructional components, designed to produce concrete results or perform tasks that can be utilized in a computer or other designated tools and equipment;  4.1.28. "technological protection measures" means security measures such as restriction of access, copying, transmission and public distribution, coding, and encryption in order to prevent, control and protect the use of works and objects of related rights in the online environment without the permission of the author, right holder, and holders of related rights;  4.1.29. "rights management information" means numbers, visual notes, coding information containing information on the work, performance, phonogram, author, right holder, and terms of use of the work, performance, and phonogram;  Chapter 2. Copyright-protected works, authors, and rights holders.  Article 6. Works are subject to copyright. 6.1. The works subject to copyright are:  6.1.10. computer programs;  6.1.12. databases;  Chapter 4. Particularities of copyright in certain works.  Article 22. Copyright in computer program:  22.1. The author of a computer program may be one or more individuals who created the program.  22.2. If the program is created for the first time or is an original work, it is protected under this law.  22.3. The employer shall enjoy the exclusive rights for the exploitation of work created in the course of an employee's duties unless otherwise provided in the agreement. Copyright in commissioned computer program/software shall belong to the client unless otherwise provided in the agreement. Copyright in commissi

- 22.4.2. use for corrective work on the program;
- 22.4.3. use a backup version in case the program is lost or removed and becomes unusable;
- o 22.4.4. research and test the structure of the program and the main functions of its operating principles.
- 22.5. A legal user has the right to copy and translate a computer program for the purpose of creating independent programs or for compatibility with other programs without the permission of the copyright holder and without additional payment, subject to the following conditions:
  - 22.5.1. lack of prior access to information required for the creation of an independent program;
  - o 22.5.2. limited access to sections of the original software is required to create an independent program.
- 22.6. The utilization and disclosure to third parties of the information gathered according to Article 22.5 of this law for purposes other than the creation of an independent software or enhancing software compatibility, as well as the development, alteration, and reproduction of the work similar to the original software, or making a profit from it shall be prohibited.
- Explanation: "Legal user" stated in this Law shall mean a person who has obtained consent from the copyright holder to exploit computer programs/software and databases per this Law.

#### Article 23. Copyright of databases

- 23.1. The person who created the database, or the copyright holder, loses the right to distribute copies of the database in case of rights transfer.

#### Article 24. Rights and responsibilities of the user of databases

- 24.1. Suppose the person who created the database lawfully distributed the database to the public. In that case, the legal user is responsible for non-infringement of the copyright and related rights to the works contained in the database when using the database.
- 24.2. The legal use of database shall not impede the rights and legal interests of the creators of a database or the normal operation of the database.
- 24.3. The legal user with permission to use specific sections of databases shall only be entitled to utilize those sections.
- 24.4. Exploitation and development of databases for public safety and the operation of state authorities shall not be deemed an infringement of the exclusive rights of the work.
- 24.5. Reproduction, systematic uploading, or development of some part of the information of the database inconsistent with the rights and legitimate interests of the person who created a database shall be prohibited.

Chapter 5. Conditions for the use of work. Article 42. Partial exploitation of works stored in archives, museums, and library resources. 42.1. Partial exploitation of works stored in the archive, museum, and library resources without the authorization of the author or compensation shall be permitted under the following conditions:

- 42.1.2. copying published works, converting them into a special format, or converting them into digital format for the preservation of single copies and rare old works stored in archives, museums, libraries, or if it is considered impossible to restore copies of damaged, worn out, destroyed or stolen works;
- 42.1.4. creating an electronic database facilitates searches and analysis of works stored in the library resources.

			Article 43. Partial exploitation of works for private use. 43.1. Except for the provisions of Article 43.2 of this Law, an individual may duplicate a work in the public domain without the intention of making a profit for the use of his/her private use and/or his/her family use without the permission of the right holder of copyright and compensation. 43.2 The conditions specified in Article 43.1. of this Law shall not apply to the duplication of the following works:  - 43.2.2. computer programs;  - 43.2.3. databases.  Chapter 8. Protection of copyright and liabilities for copyright violators. Article 52. Protection of copyright in digital and other communication network.  - 52.1. Internet service providers, aggregators, website owners, telecommunications service providers, broadcasting organizations, and multi-channel transmitters shall not violate the copyright and related rights. They shall provide holders of copyright and related rights with the opportunity to enforce their rights on their and/or others' servers, network and database.  Article 54. Rights management information  - 54.1. The rights management information shall be attached to a copy of the work, recordings of the performance and phonograms, or placed inside of the copy, or it shall be placed transparently when transmitting them through the digital environment or making available of them to the public.  Article 56. Infringement of copyright and related rights. 56.1.  Copyright and related rights shall be considered infringed under the following conditions:  - 56.1.5. placement, making internet (digital) linking, or developing works in the social network without authorization of right holder.
3.	Law of Mongolia on Patent	6 May 2021	Chapter 2. Protection of inventions and utility model. Article 6. The subject matter shall not be deemed an invention. 6.1. The following subject matter shall not be deemed inventions.  - 6.1.2. computer programs, algorithm alone;  - 6.2. The fact that a computer program or algorithm is a component of an invention does not preclude it from being protected by a patent.

#### 2.4 Systems used at IPOM.

The following systems are used at IPOM, shown in Figure 2-1:

- 1. IPOM publish<sup>30</sup> publication of the industrial property database.
  - The IPOM Publish is provided by the World Intellectual Property Organization (WIPO). Currently, it contains 76,767 trademarks and 2,951 product designs protected by Mongolian law.
- 2. The intellectual property license registration information system.<sup>31</sup>
  - This system displays copyright information, new products, effective design, product
- design, and trademarks. Currently, it contains 394 records of copyrights, out of which 92 are new products, 68 effective designs, 4 product designs, and 227 trademarks, which are searchable and open to the public. However, the intellectual property database at IPOM contains 5,996 new products, 4,527 utility models, and 3,674 product designs, totaling 14,197 entries.
- 3. IPOM copyright copyright search system.<sup>32</sup> It is a copyright search system that allows one to search for a copyrighted product or copyright owner's name. The system is

https://publish.ipom.mn/wopublish-search/public/home;jsessionid=BEFF102EDB0E0F92D2AC638A8E5A6392?0.

<sup>31</sup> http://iplicense.ipom.mn/#/ipom.

<sup>&</sup>lt;sup>32</sup> http://copyright.ipom.mn.

- currently being tested but still allows to display the results.
- 4. IPOM e-filing system online application system which has been used since 2018.
- 5. Registration system of the copyright agents and brokers. <sup>33</sup> The system contains information on 43 agents and brokers, of which 39 are agents and 4 are brokers. It displays the date they were issued with a certificate for copyright agent/broker and
- contact information (phone number, email, address).
- MGS category of the products and services. It is a WIPO's IP portal, which allows one to search for products and services by category.
- 7. WIPO IPAS (World Intellectual Property Organization's Industrial Patent Automated System) was introduced in 2016.

Figure 2-1. Systems used at IPOM

### Systems used at IPOM



#### 2.5 Some IP statistical information.

As mentioned earlier, several systems operate at IPOM, which the WIPO provides. They can be accessed from IPOM and WIPO websites.

Figure 2-2 represents applications submitted for

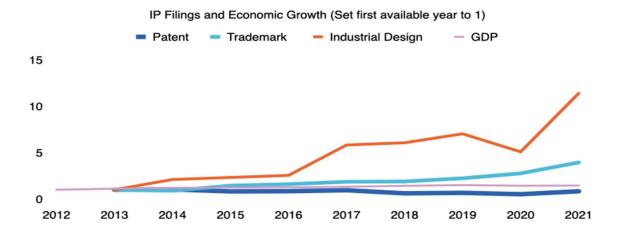
patents and trademarks between 2012-2021, the trademark filings have been steadily increasing since 2016, and the patents fluctuated without a major increase. As for the industrial designs, they have increased in 2021.

Figure 2-2.

IP Filings and Economic Growth (Set first available year to 1)

<sup>&</sup>lt;sup>33</sup> http://ipbrokerage.ipom.mn/#/ipom.

<sup>34</sup> https://webaccess.wipo.int/mgs/



Source: WIPO statistics database; last updated: 02/2023

Figure 2-3 shows that the number of applications for patents has increased from 2020. Particularly, the number of applications from residents has overgrown over the non-residents.

Figure 2-4 shows the number of granted patents for non-residents is almost double that of the residents.

Figure 2-5 shows the number of applications and granted patents for the past three years.

As shown in Figure 2-6, the number of applications for invention has been stable for the past two years. However, fewer applications were granted with patents. As for industrial design, there is a decrease in the applications for industrial design, but the number of granted patents has increased.

Figure 2-3.
Patent applications

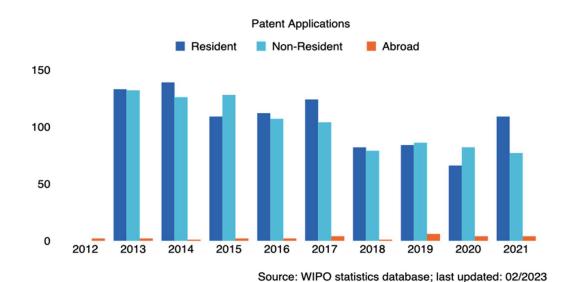
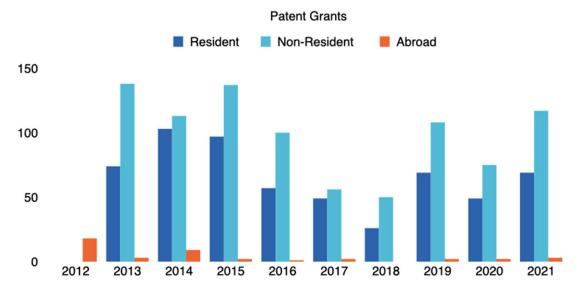


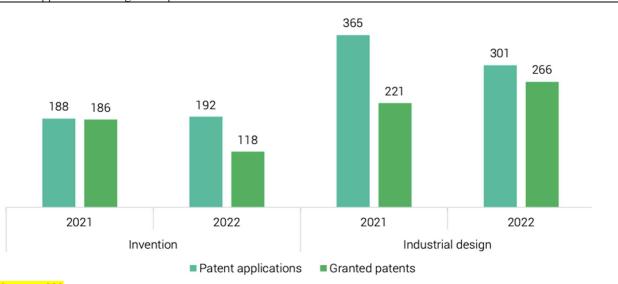
Figure 2-4.
Patents granted



Source: WIPO statistics database; last updated: 02/2023

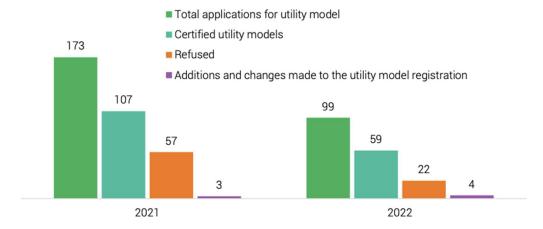
Figure 2-5.

Patent applications and granted patents.



Source: ??? Figure 2-6.

Total number of granted patents by year



#### Source: ???

There has been a substantial decrease in applications for the utility model for the past two years, and even though almost 60 percent of applications have been certified as utility models, still, there is an extensive number of refused applications.

The National Information Technology Park provides incubator services for startup

#### 2.6 Intellectual property Processes

The whole process for intellectual property rights application and the grant differs for patents, copyright, trademarks, and geographical indications. The below listed different periods will apply:

- 2 weeks for copyright.
- 9 months for trademarks (with a possibility to extend for another six months);
- 12 months for geographical indications (with a possibility to extend for another six months) and
- 9 months for the patent (can be extended for a year).

In all cases, if the rights of copyright, trademark, patent, or geographical indications are granted, it is dated for the day of application.

The table representing a summary of fact sheets for all IP categories is presented in <u>Annex 6</u>.

The business process modeling notation (BPMN) was used to scheme the process of intellectual property rights application, verification, granting, and enforcement, presented in <u>Annex 7</u>. It contains BPMN for copyright, patent, and trademark/geographical indications.

companies. As part of training for incubator companies, the training on intellectual property rights is conducted on a regular basis (once a quarter), and the staff of NITP provides support and guidance in getting IP rights certificates. For the 2021-2023 intake, out of 19 incubator companies, two companies have already received trademark certification, and ten companies have copyright licenses for their products.

There is a process between application and granting the application, which requires extensive time, and it's the intellectual property appraisal.

According to the Law of Mongolia on Intellectual Property, the right to conduct intellectual property valuation is performed by the property appraisers, who are specially certified according to the Law of Mongolia on property valuation and have attended the training and received a certificate for conducting an appraisal of the intellectual property. (Article 21. of the Law of Mongolia on Intellectual Property).

There are 20 such intellectual property appraisers from the Mongolian Institute of Certified Appraisers. <sup>35</sup>

There are three major methods used for appraising intellectual property:

- Cost-based approach.
- Market-based and
- Income-based appraisals.<sup>36</sup>

According to the representative of the MICA, there are certain challenges when conducting an appraisal of the software:

 When conducting an appraisal, there is a need to use independent information.

<sup>35</sup> http://www.mica.mn/c/3017190

<sup>&</sup>lt;sup>36</sup> https://www.wipo.int/sme/en/ip-valuation.html

However, more information about the software market, products and services is needed

- The challenge is about the quality of the information.
- There needs to be financial information and insufficient primary financial data.
- There needs to be more sectoral information. If looking for external sources for info, it requires additional payments. It reflects the appraisal cost and only a few companies are willing to pay extra.
- The appraisal of the startup companies' products is a challenge because they have certain financial limitations.
- There is no market for appraised software products. There is a limitation on who might purchase appraised software.
- There needs to be more knowledge and experience among the valuators/appraisers

- in conducting a valuation of the intellectual property and value of the IP.
- According to the international accounting standard for <u>intangible assets</u> 38 <sup>37</sup>, the software should be reflected in the company's balance sheet as an intangible asset. And only that the appraisers can do the valuation of the software. However, not many companies do that.
- In addition, there needs to be more data or information related to the software available (for example, if the software is used on a license-based, then it should be registered as intellectual property in the balance sheet, but few do that).
- There is a need to improve the capacity of the valuators/appraisers, such as learning from the experience of other countries, etc.

#### 2.7 Economic circulation of IP works

The IPOM conducted a survey among the patent and copyright holders in 2021 with the purpose of defining the possibility of making intellectual property works in economic circulation. <sup>38</sup> According to this survey, there were 14,197 registrations in the intellectual property information system, out of which 5,996 are patents, 4,527 designs, 3,674 trademarks. However, only 42.4 percent of patents, 31.8 percent of designs, and 25.8 percent of trademark licenses were protected by having valid intellectual property rights.

The report showed that 81 percent of holders of new product patents use their patents to manufacture and trade and 19 percent as a license or by contract as a way of economic circulation of their patent. As per the type of patent holder, only one of these patent holders was an individual, and the rest were business entities. When asked about the inability of the patent's economic circulation, the respondents noted that there needs to be knowledge, experience, or information on how to do that, lack of investment

# 2.8 Intellectual property of digital technology products and services.

#### Copyright

There are 14,600 Mongolian granted applications for copyright, including 1,310 granted applications for software and five granted applications for the database. Figure 2-7 represents the number of

and financial support due to the legal environment, and other reasons. The general findings of the report are as follows:

- 1. Even though the IP license has been received, it could not protect the product.
- 2. If the copyright holder is a person, he/she may be unable to get benefits.
- 3. Even though the IP certification has been received, when there is a similar product is introduced to the market, the state (government) or Intellectual property office does not do their job, do not support IP certificate holder, sometimes work closely and get supported by the large companies and do not support small entities and individuals.
- 4. Need to learn how to make the IP product into economic circulation.
- 5. It cannot protect IP products because they can be easily replicated and produced in other countries and sold wholesale there.

granted copyright applications and those of software and databases for the past three years.

Figure 2-7 shows the total number of copyrights issued in 2021 by categories reported by the National Statistical Office (NSO). There are over 996 copyrights issued in 2022, of which only 88 are computer software and four databases. Considering over 100+ software development companies and

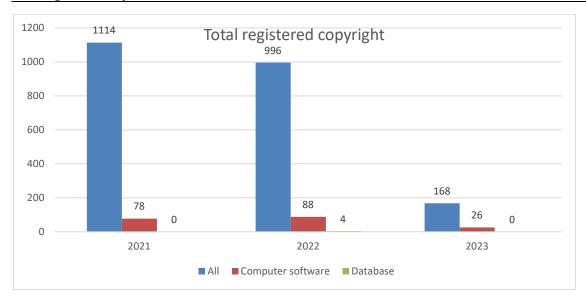
<sup>&</sup>lt;sup>37</sup> https://estandard.gov.mn/standard/v/1260

<sup>38</sup> https://sudalgaa.gov.mn/x6WibN

more startup companies entering the market, the number of copyrights issued for the software is comparatively low -8 percent.

Figure 2-7.

Total registered computer software and database



Source: ???

#### **Patents**

There are 100,588 Mongolian patents registered in the IPOM public industrial property information

#### **Industrial designs**

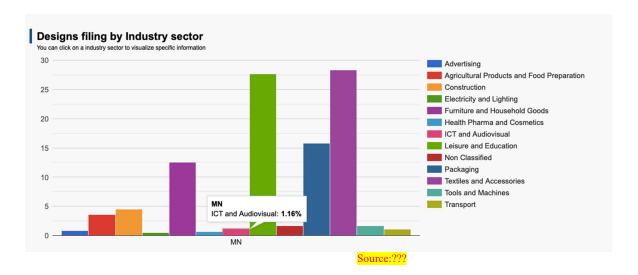
Figure 2-8 shows ICT and Audiovisuals represent only 1.16 percent compared to all other industrial categories. This 1.16 percent ICT and Audiovisuals displayed 44 designs, of which 35 are inactive, six were rejected, and three are active designs. Three active industrial designs include an eco phone holder designed by 3 Mongolians, a door phone by a

database, including 8,039 patents, 3,741 industrial designs, and 88,808 trademarks. The following graphs show design filings by industry.

Korean corporation, and plated springs. Five rejected applications produced by Mongolians between 2014-2018 include a smart notebook, GPAY – ticket transaction machine (kiosk), Gerege payment machine (kiosk) (large and small), ticket transaction kiosk machine, and dispensing kiosk machine. The reasons for rejection are not clear.

Figure 2-8.

Intellectual property design filing by industry



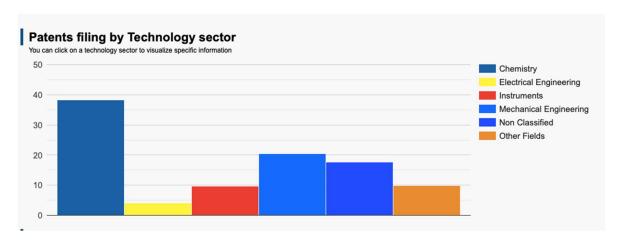
#### **Utility models**

Figure 2-9 represents the patent filing by the technology sector. The chemical industry represents 38.19 percent, electrical engineering – 4.14 percent, instruments – 9.69 percent, mechanical engineering – 20.57 percent, non-classified – 17.63 percent, and other fields 9.78 percent. Among the electrical

Figure 2-9.

Patents filing by industry

engineering sector, there were several active patents issued to Mongolians in the ICT- related industry, such as the I-pass announcement information board registered on 2 February 2023, the Smart traffic lights issued on 27 July 2022, the Mobile home phone system granted on 3 March 2020, and the kiosk machine issued on 28 December 2020.



#### Source ???

#### **Trademarks**

Out of 88,808 trademarks registered in Mongolia, the following graphs, displays, trademarks filed by industries as follows:

- 12.59 percent agriculture,
- 11.21 percent business services,
- 4.45 percent chemicals,
- 11.32 percent clothing
- 6.91 percent construction,
- 15.41 percent health,
- 6.10 percent household equipment,
- 10.71 percent leisure and education,
- 13.42 percent research and technology,

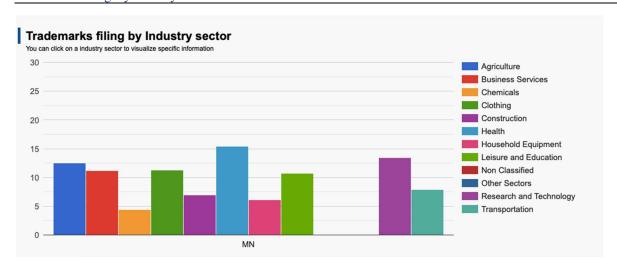
- 7.89 percent transportation.

There are over 7,000 trademarks registered under NICE Class 9 (computers) and NICE Class 38

(telecommunications) trademarks, for example, for Amar Sankhuu (Amar Finance), Ondo Space, Mobi Insurance, Mobi Life Insurance, Mongolian Data Club, Go+, Unitel, Ger Internet (both registered), Tsakhim, etc.

Figure 2-10.

Trademarks filing by industry



Source: ???

# 2.9 Intellectual property rights-related challenges faced by ICT stakeholders

There are some intellectual property rights-related challenges faced by ICT stakeholders:

1. <u>Need for more knowledge of IP-related</u> <u>legal and regulatory frameworks.</u>

As the respondents expressed during interviews with the representatives of IPOM, National IT Park, and some software development companies, there needs to be more knowledge of the IP-related legal and regulatory frameworks. Some require a clearer understanding of how to register their products, the requirements for registration, and the benefits of this.

2. <u>Need for more knowledge of the copyright</u> among the software companies.

The software is explicitly specified in the Law of Mongolia on Copyright as an item for protection in 6.1.10. computer programs, 6.1.12. databases and in Article 22. Copyright in the software program. Only a few people are aware of this. Moreover, according to the Law of Mongolia on

Copyright, Chapter 3. Copyright and its term Article 10.1. Copyright in scientific, literary, and artistic works shall arise from the moment the work is created and acquired in a material form. It means the computer software or database is already considered copyright work when created. It does not have to be registered as copyright work at IPOM and get certification. As such, only a few software products are registered with IPOM.

3. <u>Lack of knowledge of the appraisal of software.</u>

There are 20 certified intellectual property appraisers. But because there is insufficient information about the software sector, it is not easy to conduct an appraisal of the software either by cost, market-based, or income-based approach.

4. <u>Lack of knowledge on copyright among the juridical systems.</u>

There were cases in the court when the court ruled in favor of the person who had certification from IPOM on the copyright of the software, even though the software was produced by a person who did not have

- certification but had proof that he/she was the one who has developed software. Court officials rely on official documents, and there needs to be more knowledge of intellectual property rights.
- 5. <u>Need for intellectual property specialized</u> experts and evaluators on digital technologies.

There needs to be an established framework for evaluating software. There is a

specialized evaluator institution. However, they consider the software based on how many persons worked to develop it and how many person-months were spent developing it. And more is needed to define the value of the software. Therefore, some of the software companies approached international appraisal companies and experts for this to have an adequate appraisal of the software.

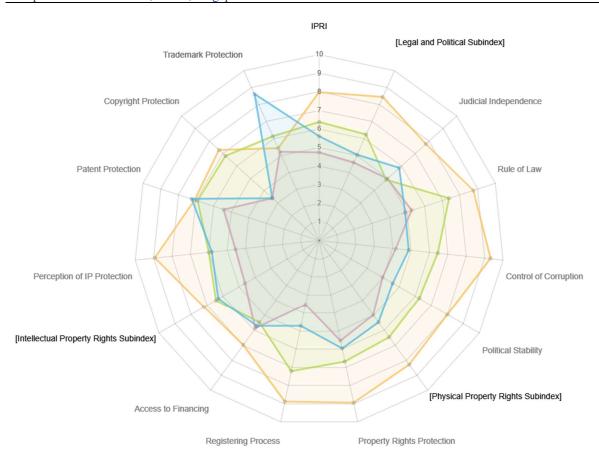
# 3. Analysis of other country cases

Based on the discussion among the team members, it was agreed that the consultant would review the following countries – China, Korea, Singapore, Thailand, and Estonia. The following chart presents the International Property Rights Indexes (IPRI) of selected countries. The IPRI measures the level of protection a given country's laws provide to private

property; and to what extent its government enforces those laws. It also scores the ability of judges to function independently from outside influences. Specifically, it evaluates the existence of corruption within the justice system. Finally, the IPRI assesses the ability of individuals and businesses to enforce contracts.

Figure 3-1.

Comparative chart – China, Korea, Singapore and Thailand from IPRI



Source: https://www.internationalpropertyrightsindex.org/countries

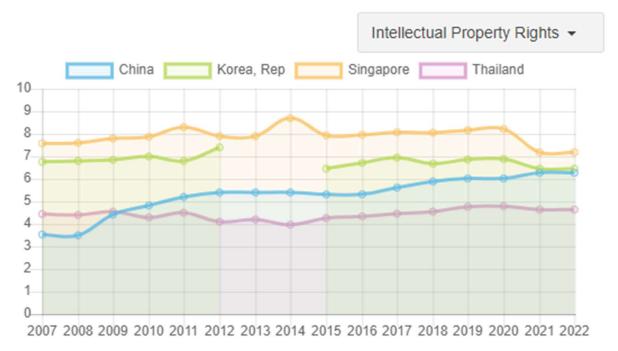
According to Figure 3-1, Singapore has more high indexes in almost all these categories Legal and Political Subindex (which includes Judicial independence, Rule of Law, Control of Corruption, and Political Stability), Physical Property rights (which includes Property rights protection, Registering process, Access to Financing) and Intellectual property rights subindex (Perception of

IP protection, Patent Protection, and Copyright Protection). However, on Trademark protection, China overtakes Singapore. Thailand lacks behind these countries in all these categories. (Detailed description of the IPRI methodology is in Attachment 5).

Figure 3-2 represents intellectual property right and

Figure 3-2.

Comparative table of Intellectual property rights - China, Korea, Singapore and Thailand



Source: https://www.internationalpropertyrightsindex.org/countries

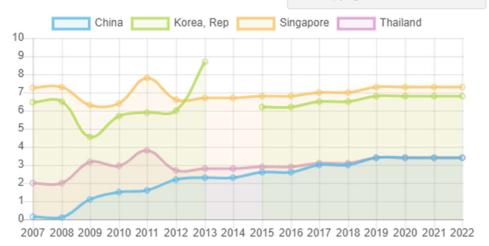
The IPR and Copyright indexes have been stagnating across the Asian region. In addition to that, scores have decreased in recent years. This is true, especially with leading countries such as

Singapore and the Republic of Korea. On the other hand, China's scores have been growing steadily, reflecting the country's significant changes in both the design of the IPR legislation and its enforcement.

Figure 3-3.

Comparative table of copyright protection – China, Korea, Singapore and Thailand.





# Source: ???

Case Study:

### **CHINA**

Evolution of the Chinese Intellectual Property Rights System: IPR Law Revisions and Enforcement

Since the first Trademark Law was enacted in China in 1982 as well as the first Patent Law was enacted on 1 April 1985, the Chinese intellectual property rights (IPR) system has undergone significant changes in both the design of the legislation and its enforcement.<sup>39</sup> In brief, the Chinese IPR system has gone through several waves of revisions: four in total (1992–1993, 2000–2001, 2008–2013, and 2019–2020).

# 1. 1992-1993:

On 17 January 1992, PRC and US reached an agreement of *People's Republic of China-United States of America: Memorandum Of Understanding On The Protection Of Intellectual Property.* <sup>40</sup> To fulfill its promise, the Patent Law (first enacted on 1 April 1985), Trademark Law, and Copyright Law have been substantially enhanced.

# 2. 2000-2001:

especially since 2000, when China improved its IPR system to comply with the TRIPS Agreement and join the WTO, and especially the most recent amendments of these three IP Laws. On the other

hand, results indicate that the development of IPR protection enforcement followed the improvement of relevant IPR laws. 41

### 3. 2008-2013

On June 5, 2008, with the introduction of the Outline of the National Intellectual Property Strategy, China elevated intellectual property to a national strategy. The two revisions introduced after 2008, changes in the Chinese IPR system, and an increasing number of IPR infringement cases handled by relevant authorities also suggest the willingness of the Chinese government to enhance its IPR protection further.

# 4. 2019–2020

In 2018, China set up the State Administration for Market Regulation, reorganized the State Intellectual Property Office, and improved the copyright management system, which not only realized the centralized and unified administration of trademarks, patents, and geographical indications of origin but also the comprehensive enforcement of trademarks and patents.

### 5. 2021-2035

In September 2021, the Outline to boost China's competitiveness in the area of intellectual property (2021-2035) (hereinafter referred to as "the Outline") was promulgated, mapping out the strategy for China's IP development in the next 15

https://www.cnipa.gov.cn/art/2019/9/27/art\_499\_134131.html.

<sup>&</sup>lt;sup>39</sup> China National Intellectual Administration, *Development history of intellectual property rights in China*, 27 September 2019.

<sup>40</sup> Government Accountability Office of US, https://www.gao.gov/assets/ggd-95-61.pdf.

<sup>&</sup>lt;sup>41</sup> Ministry of Commerce of the People's Republic of China, *Memorabilia of IPR in China (1978-2005)*, https://www.caefi.org.cn/article/xwzx/zzyfw/202112/264.html.

years. The Outline envisioned that, by 2025, notable progress will be made in boosting China's IP competitiveness; and by 2035, world-class national competitiveness in the IP area with Chinese characteristics will be basically built.<sup>42</sup>

# **Copyright Law**

The amended Copyright Law is effective as of June 1, 2021. Some of the <u>highlights in the amended Copyright Law</u> include punitive damages for intentional infringement, an increase in statutory damages, and an increase in civil fines for copyright infringement.

# Copyright Law of the People's Republic of China – chronology of amendments

- Adopted at the 15th Meeting of the Standing Committee of the Seventh National People's Congress on September 7, 1990;
- Amended for the first time in accordance with the Decision on Amending the Copyright Law of the People's Republic of China at the 24th Meeting of the Standing Committee of the Ninth National People's Congress on October 27, 2001;
- Amended for the second time in accordance with the Decision on Amending the Copyright Law of the People's Republic of China at the 13th Meeting of the Standing Committee of the Eleventh National People's Congress on February 26, 2010; and
- Amended for the third time in accordance with the Decision on Amending the Copyright Law of the People's Republic of China at the 23rd Meeting of the Standing Committee of the Thirteenth National People's Congress on November 11, 2020)

# Patent Law of the People's Republic of China - chronology of amendments

- The Patent Law of the People's Republic of China first entered into force on 1 April 1985
- Amended for the first time in accordance with the Decision on Amending the Patent Law of the People's Republic of China at the 27th Meeting of the Standing Committee of the Seventh National People's Congress on 4 September 1992

- Amended for the second time in accordance with the Decision on Amending the Patent Law of the People's Republic of China at the 17th Meeting of the Standing Committee of the Ninth National People's Congress on 25 August 2000
- Amended for the third time in accordance with the Decision on Amending the Patent Law of the People's Republic of China at the 6th Meeting of the Standing Committee of the Eleventh National People's Congress on 27 December 2008
- Amended for the fourth time in accordance with the Decision on Amending the Patent Law of the People's Republic of China at the 22nd Meeting of the Standing Committee of the Thirteenth National People's Congress on 17 October 2020.<sup>43</sup>

### REPUBLIC OF KOREA

There are four major acts approved in 2017 and 2018 – framework act on intellectual property, enforcement decree of the framework act on intellectual property, copyright act, and enforcement decree on copyright act.

# Framework Act on Intellectual Property

The Framework Act on Intellectual Property was approved on 19 December 2017 and enforced from 20 June 2018. "The purpose of this act is to contribute to the economic, social, and cultural development of the Republic of Korea and the improvements of people's quality of life by formulating basic government policies and utilization of intellectual property and creating the foundations thereof, thus enabling the value of the intellectual property to be displayed in our society to the fullest extent" 44

# Enforcement decree of the framework act on intellectual property

The enforcement decree of the framework act on intellectual property has been approved by Presidential Decree No. 28787 of 10 April 2018. The main purpose of this decree is "to prescribe matters delegated by the Framework act on intellectual property and matters necessary for the enforcement thereof"

## **Copyright Act**

https://english.cnipa.gov.cn/module/download/down.jsp?i\_ID=176467&coIID=2936

<sup>43</sup> https://english.cnipa.gov.cn/col/col3068/index.html

<sup>44</sup> Framework act on Intellectual Property.

<sup>&</sup>lt;sup>45</sup> Enforcement decree of the framework act on intellectual property.

Copyright Act has been approved on 8 December 2020 "to protect the rights of authors and the rights neighboring on them and promote fair use of works in order to contribute to the improvement and development of culture and related industries." <sup>46</sup>

# **Enforcement decree of the Copyright Act**

The enforcement decree of the Copyright Act has been approved by the Presidential decree Nol30898 of 4 Aug 2020 with the "purpose to provide for matters delegated by the Copyright Act and the matters necessary for its enforcement."<sup>47</sup>

### **SINGAPORE**

Singapore's new 10-year IP roadmap puts emphasis on the role of innovation in driving its digital economy, with anticipated legal changes involving the use of big data and artificial intelligence technologies (April 26, 2021)

# **Copyright Act**

The new Copyright Act, which is in force from 21 November 2021, replaces the existing Copyright Act (Cap. 63). The Act updates and enhances our copyright regime to take into account technological developments which have immensely impacted how copyright works are created, distributed, accessed, and used.

# **THAILAND**

### Copyright Law

Copyright law in Thailand governs the legally enforceable rights of creative and artistic works under the Copyright Act BE 2537 (1994). Copyright is automatically protected for 50 years after the death of a known author or 50 years after publication in the case of an unknown author.

Copyrights are protected in Thailand without any registration requirement. However, formal recordation of copyrights at DIP's Copyright Office is recommended as it would be useful as evidence of ownership in the event of a dispute. A copyright notice should also be affixed to the copyrighted work.

<sup>&</sup>lt;sup>46</sup> Copyright Act. <sup>47</sup> Enforcement decree of the copyright Act.

# 4. Key findings

- 1. There is a sound legal and regulatory framework of IP and CP in Mongolia with the IPOM, supporting laws and regulations, and the mechanism in place. The IPOM became a member of the World Intellectual Property Office (WIPO) in 1979 and has been actively engaged in WIPO activities and benefitted from this membership. It applies to access to WIPO online resources. However, there is a need to make this information widely known among the general public and organizations, including software development companies.
- 2. The IPOM provides information on copyright products and services to the public through the website and enables public access to their open systems, such as information systems for intellectual property licensing registration and registration system of intellectual property agents and brokers. The list of licensed intellectual property agents is available on the IPOM website, and it can be seen by categories (individuals, business entities, non-government organizations). However, only a few people are aware of this. Therefore, there is a need for extensive public outreach and public advocacy programs to provide information to the general population, to pupils of secondary schools, to students and teachers of universities as well as to the civil servants of government organizations. The specially designed training programs can be introduced at the Academy of Management of Mongolia for civil servants and the judicial system staff.
- 3. The IPOM is currently an implementing agency of the Ministry of Justice and Home Affairs, along with the police, border protection, court enforcement, and similar enforcement organizations. Therefore, the approach to IPOM is the same as for those enforcement organizations. There seems a need to change this approach.
- 4. The application process for intellectual property rights (copyright, patent, trademarks) is pretty straightforward, and there is an online system for registering applications called IPOM e-Filing system. The applicant needs to get access to the system from the IPOM and fill out all necessary

- forms online without visiting the IPOM. The IPOM still receives applications in person. However, concerning the application for copyright for software, there are insufficient experts or resources at IPOM to review the source code of the software, etc.
- 5. The <u>whole process</u> for registration, verification, granting, and protection of intellectual property and copyright takes up to 2 years, depending on the completeness, complexity, etc. There is no special process for digital technologies and products.
- 6. The number of granted patents has been low compared to the applications. This may be due lack of knowledge, experience, and information on how and what kind of documents need to prepare and submit applications to get them approved. There seems to be a need for extensive public advocacy work. Integration of intellectual property-related topics in the curriculum of universities would be beneficial for potential patent applicants. In addition, regular public media campaigns would bring more attention to IP and CP in Mongolia. The organization of the IP-related training at IPOM itself could boost public awareness of IP rights.
- 7. There was no information on Mongolian intellectual property and copyrights at the International Property Right Index (IPRI)— it was marked as "undefined". It could be beneficial for Mongolia to share its IP and CP data and information with IPRI so that Mongolia can compare its development with other countries and take action and measures to improve its status.
- 8. The valuation of the software is underdeveloped. There is a Mongolian specialized evaluators institute, which has 20 specialized valuators on intellectual property rights. Considering that some software companies use foreign organizations to evaluate their software, there needs to be more knowledge and skills among the Mongolian valuators in performing software appraisal. At the same time, software companies need to learn to make their information and data open and transparent.

# 5. Policy recommendations with actions to Mongolia based on findings

# <u>Proposal of policy and regulatory framework</u>

- Develop and implement an Action plan directed to the manufacturers and producers to increase their knowledge and awareness of IP rights and legal and regulatory framework.
- Develop and implement a plan of joint activities with other ministries and agencies to introduce intellectual property rights into production and increase its economic value. It applies to the Ministry of Digital Development and Communications concerning digital technology products and services, in particular, the development of terminologies, the development of policy and regulatory documents related to digital technologies, training of specialists with experience and knowledge in both areas digital technologies and intellectual property, etc.
- Cooperate with sectoral professional associations such as the Mongolian Software Industry Association (MOSA) and develop a joint action plan for cooperation, which includes the organization of regular training on intellectual property rights (particularly on the copyright), creating the framework for valuation of the software, education of users of the software and applications.
- New terms are terminologies are being introduced and they need to be translated as well as make changes into the legal and regulatory framework in relation to new digital technology products.

# Public advocacy and outreach:

- Develop an advocacy plan and regularly organize public media outreach programs about intellectual property rights, protection, and benefits.
- Enforce the introduction of intellectual property and copyright-related topics into the curriculum of universities at all levels.
- Develop and implement the training program for the civil servants at the Academy of Management to improve the knowledge and understanding of IP by the civil servants. It also applies to training for judges and court officials.
- Develop and implement a plan to introduce IP and CP to children from early childhood. It could

- be a series of short movies to give them basic knowledge and understanding about IP and CP and promote them to be inventors.
- Need to improve the knowledge and awareness of intellectual property among the judicial system staff, particularly when dealing with complaints related to IP.
- Develop and organize training on the valuation of IP (specifically for the software) for the evaluators and organize training for valuators on the software development process.

# *Investment and financing*

- Identify potential opportunities for supporting patent holders with discounted loans and grants and provide guarantees for the patent holders through looking into existing government special funds or other means;
- Define investment policies that will support the creation of economic value for the patent holders.
- Define a favorable legal and regulatory framework for intellectual property valuation.

# Human resource capacity building

- Educating and training software developers and engaging them in intellectual property review or valuation processes is necessary.
- There is a need to improve the capacity of the certified valuators by organizing workshops/seminars to exchange knowledge and experience with other countries of similar development phases.
- A training center on IP can be established at the IPOM to conduct regular training about the IP, process, etc. This training does not have to be certification training but rather general knowledge improvement, understanding of IP, and awareness about the IP process, benefits, etc.
- Regularly organize capacity-building activities for IPOM staff.

### International cooperation

 Organize a regional (landlocked developing countries) workshop to share experience and knowledge of countries on developing, implementing, and enforcing intellectual property rights legal and regulatory framework for digital technology products and services. The potential topics cover digital technology products and services, copyright enforcement, evaluation of software products, training of staff at IPOM, and specialized IP institutions.

• Conduct extended research comprehensively to cover Landlocked countries and make a more

detailed study on the legal and regulatory framework of these countries and their experience in dealing with intellectual property rights of digital technology products and services.

# 6. Attachments:

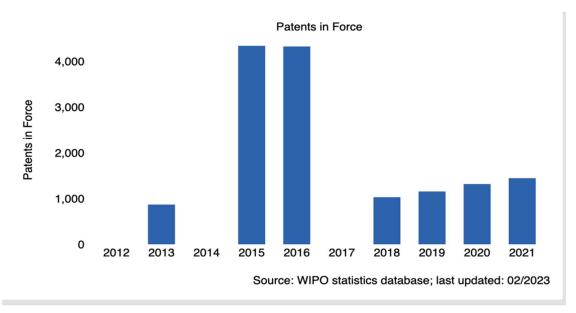
# 6.1.List of the policy and regulatory documents of Mongolia.

- Law on Intellectual Property https://www.ipom.gov.mn/source/legalinfo. mn%20-%20ОЮУНЫ%20ӨМЧИЙН%20ТУХАЙ .pdf
- Law on Copyright amended https://www.ipom.gov.mn/source/legalinfo.mn%20 %203ОХИОГЧИЙН%20ЭРХИЙН%20Т
   УХАЙ%20 Шинэчилсэн%20найруулга

- .pdf
- Law on Patent https://www.ipom.gov.mn/source/legalinfo. mn%20-%20ПАТЕНТЫН%20ТУХАЙ.pdf
- Law on Trademarks and Geographical Indications <a href="https://www.ipom.gov.mn/source/legalinfo.mn%20-%20БАРААНЫ%20ТЭМДЭГ%2С%20ГАЗАР%20ЗҮЙН%20ЗААЛТЫН%20ТУХАЙ.pdf">https://www.ipom.gov.mn/source/legalinfo.mn%20-%20БАРААНЫ%20ТЭМДЭГ%2С%20ГАЗАР%20ЗҮЙН%20ТЭМДЭГ%2С%20ГАЗАР%20ЗҮЙН%20ЗААЛТЫН%20ТУХАЙ.pdf</a>

# **6.2.List of graphs of Intellectual Property in Mongolia.**

Figure 6-1. Patents in Force



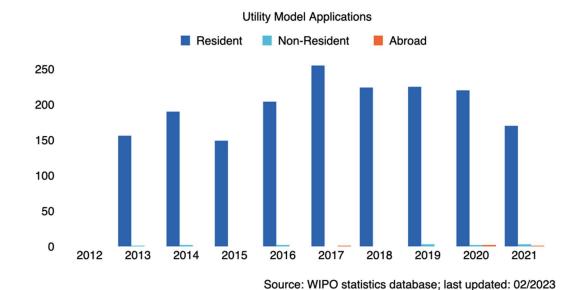


Figure 6-3.

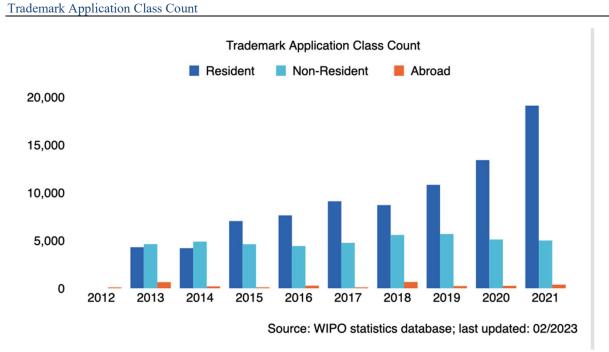


Figure 6-4.

Trademark Registration Class Count

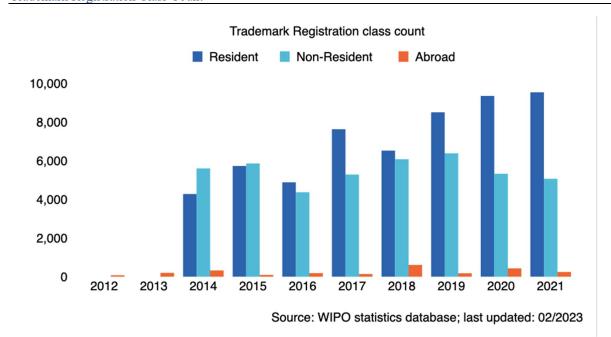
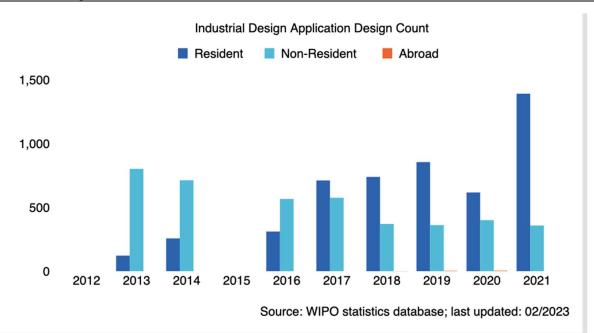


Figure 6-5.

Industrial Design Class Count



# 6.3. IPRI 2021 Methodology

The 2021 IPRI scores and rankings are based on data obtained from official sources made publicly available by established international organizations. For this reason, data come in different styles and scales. Consequently, data is rescaled to accurately compare among countries and within IPRI components and overall score.

The grading scale of the IPRI ranges from [0-10], where 10 is the highest value for a property rights system, and 0 is the lowest value (or most negative) for a property rights system within a country. The same interpretative logic applies to the three components and the ten items or variables.

The average mechanisms applied to assume equal importance for each component of the final IPRI score (and of each item of every component); however, if it were of any research interest, weights could be applied to evaluate the relative importance of the different aspects of a property rights system of a country.

The 2021 IPRI uses data from the period 2017 – 2021. The 11 items are gathered from different sources, which implies that they have different accessibility times for the most updated data available. The applied logic in the analysis has been to include the latest available data sets for the IPRI. Most of the items present a lag of one year (see Appendix I), so the time difference among data should not affect our analysis.

Almost all the items needed to be rescaled to the IPRI range. The rescaling process was done as follows:

Figure 6-6.

International Property Rights Index Structure

• formulas used for rescaling values can be found in the original file

In addition to calculating the IPRI scores and their components, countries were ranked according to their scores. With some frequency, a few countries can exhibit almost the same score and be placed in the same rank. This way, i.e., Country A could be ranked #1, while Country B and Country C #2, and Country X, Country Y, and Country Z are #3.

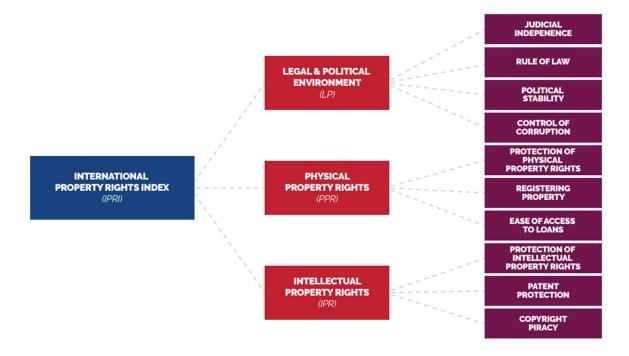
To minimize this situation and a diffusion bias, ranking calculations were made using IPRI scores with all their decimals; this way, the final scores and ranking positions were differentiated.

# INTELLECTUAL PROPERTY RIGHTS (IPR)

The assignment of intellectual property rights does not confer exclusive possession (such as physical property rights), but the benefits of its economic exploitation:

- promoting the generation of economic incentives toward research and innovation
- stimulating open exposure of ideas
- encouraging indirect effects of creativity

The Intellectual Property Rights component evaluates the protection of this kind of property. In addition to an opinion-based measure, it assesses the protection of two major forms of intellectual property rights – patents and copyrights – from a de jure and a de facto perspective.



Source: ???

# PROTECTION OF INTELLECTUAL PROPERTY RIGHTS

Capturing a nation's intellectual property protection is a crucial element of the IPR.

The data source chosen was The Global Competitiveness Index 4.0 2019 Dataset | Version 20191004 from the World Economic Forum (https://www.weforum.org/reports/ global-competitiveness-report-2019). The original data scale is [1 - 7], where 7 is the best score. Its Executive Opinion Survey used the following question and associated answers to raise the information:

In your country, to what extent is intellectual property protected? [1 = not at all; 7 = to a great extent]

# TRADEMARK PROTECTION

This year we included trademark information in calculating the IPR component of the IPRI, allowing us to gather information on three relevant kinds of intellectual property: copyright, patents, and trademarks.

The data used for this item was the International Trademark Index (ITI) created by Dr. Walter Park and updated in its more recent edition, 2021

This International Trademark Index reflects the strength of a country's trademark laws based on four extensive criteria:

- 1. Coverage IP regimes are stronger if they protect a wider range of subject matter, such as computer programs, genetic innovations, and shapes of symbols)
- 2. Membership in treaties is covered, each of which is a binary variable: yes/no to whether a country is a member at any time. The TRIPS agreement/The Patent Cooperation Treaty (PCT)/The Paris Convention/The Trademark Treaty/among others
- 3. Procedures. Type of procedures: duration/ restrictions/enforcement assesses how procedural elements affect the strength of trademark laws from country to country. Procedures should strengthen a trademark holder's position.
  - Duration. Each country's duration of protection (in years) is compared to an international standard, namely that of TRIPS. Under TRIPS, the minimum standard duration is 20 years for patents (from the date of patent application) and seven years for trademarks.
  - Restrictions. This category measures the extent to which IP laws do not impose certain restrictions. IP laws are stronger if they do not impose such restrictions (or weaker if they do). The trademark restriction score will be the fraction of

four elements (licensing requirements, assignment conditions, linking requirements, and conditions of use) that are not provided for under the law.

- Enforcement. Should infringement occur, trademark owners may have recourse to a several statutory provisions which can aid in enforcement, such as the availability of the following conditions:
  - preliminary injunctions
  - contributory infringement pleadings
  - burden-of-proof reversals
  - border measures
  - criminal sanctions
- 4. Trademark applications number of nonresident filings, normalized by the maximum filed in a country. These filings gauge how heavily the IP system is used and reflect the demand for protection.

The overall grading scale of the ITI is [0-1], where 1 is the highest and 0 is the lowest value. The same logic is applied to its four components. The variables for the index are extracted from all relevant laws published in WIPO's journal, Intellectual Property.

### PATENT PROTECTION

This item reflects the strength of a country's patent laws based on six extensive criteria: duration, coverage, restrictions, membership in international treaties, enforcement mechanisms, and applications.

The International Patent Index (IPI) is built in six clusters:

- 1. Duration of Protection
- 2. Coverage
- 3. Restrictions
- 4. Membership in Treaties
- 5. Enforcement
- 6. Patent Applications
  (same criteria used for calculating protecting trademark rights)

The overall grading scale of the IPI is [0-1], where 1 is the highest and 0 is the lowest value.

The data used for this item was the International Patent Index created by Dr. Walter Park in its last edition for 2021, advanced with PRA (https://www.propertyrightsalliance.org/wp-content/uploads/Trademarks-and-Patent-Index.pdf).

This source is updated every five years, and the original data scale is [0 - 1], where 1 is the highest score. The variables for the index are extracted from all relevant laws published in WIPO's journal, Intellectual Property, 1960-2021.

# COPYRIGHT PROTECTION

The level of piracy in the IP sector is an important indicator of the effectiveness of intellectual property rights enforcement in a country.

The data source chosen for this item was the BSA Global Software Survey: The Compliance Gap (2018 edition). The original data scale is [0 – 100%], where 0 is the best score.

### Criteria:

- 1. The BSA Global Software Survey quantifies the volume and value of unlicensed software installed on PCs across more than 110 national and regional economies in a given year in this case, 2017.
- 2. It also includes a global survey with more than 22,500 responses from consumers and employees in 32 countries who use PCs at home or work — to provide key insights into the attitudes around software licensing and new insights on the direct economic impact of lowering unlicensed software use.

### 6.4. List of resource materials

- 1. IPOS website <a href="https://www.ipos.gov.sg/resources/publications">https://www.ipos.gov.sg/resources/publications</a>
- 2. IPOS Annual Report 2022 https://www.ipos.gov.sg/docs/defaultsource/about-ipos-doc/annual-reports/iposannual-report-2021-2022.pdf
- 3. 10-Year IP Roadmap https://www.ipos.gov.sg/manageip/singapore-ip-strategy-2030
- 4. Copyright Act 2021 https://sso.agc.gov.sg/Acts-Supp/22-2021/Published/
- 5. Factsheet on Copyright Act 2021 https://www.ipos.gov.sg/docs/defaultsource/resources-library/copyright/copyrightact-factsheet.pdf

- 6. Copyright FAQs <a href="https://ask.gov.sg/agency/ipos?topics=Copyright%20">https://ask.gov.sg/agency/ipos?topics=Copyright%20</a> (General)
- 7. Patents Act https://sso.agc.gov.sg/Act/PA1994
- 8. Trade Marks Act https://sso.agc.gov.sg/Act/TMA1998
- 9. Registered Designs Act https://sso.agc.gov.sg/Act/RDA2000
- 10. Layout-Design of Integrated Circuits Act https://sso.agc.gov.sg/Act/LDICA1999
- 11. Singapore's 10-year IP roadmap factsheet https://www.zdnet.com/article/singapore-puts-intellectual-property-focus-on-innovation-intangible-assets/
- 12. Copyright Law of the PRC (2021 Version) WEBSITE 1 https://www.chinalawtranslate.com/en/Copyright-Law-of-the-PRC-(2021-Version)/WEBSITE 2 https://www.natlawreview.com/article/chinas-national-people-s-congress-releases-translation-amended-copyright-law#:~:text=The%20amended%20Copyright%20Law%20is,civil%20fines%20for%20copyright%20infringement
- 13. Copyright FAQs <a href="https://iclg.com/practice-areas/copyright-laws-and-regulations/china">https://iclg.com/practice-areas/copyright-laws-and-regulations/china</a>
- 14. Decision of the Standing Committee of the National People's Congress on Amending the Patent Law of the People's Republic of China
  - http://www.npc.gov.cn/englishnpc/c23934/2 02109/63b3c7cb2db342fdadacdc4a09ac8364 .shtml
- 15. Regulations on the Protection of Layout-Designs of Integrated Circuits -<a href="http://www.asianlii.org/cn/legis/cen/laws/rotpoloic695/">http://www.asianlii.org/cn/legis/cen/laws/rotpoloic695/</a>
- 16. Trademark Law of the People's Republic of China <a href="https://wipolex-res.wipo.int/edocs/lexdocs/laws/en/cn/cn007">https://wipolex-res.wipo.int/edocs/lexdocs/laws/en/cn/cn007</a> en.pdf
- 17. Evolution of the Chinese Intellectual
  Property Rights System: IPR Law Revisions
  and Enforcement <a href="https://www.cambridge.org/core/journals/ma">https://www.cambridge.org/core/journals/ma</a>
  <a href="mailto:nagement-and-organization-review/article/evolution-of-the-chinese-intellectual-property-rights-system-ipr-law-revisions-and-enforcement/ACEF8E7FC893123D6D95FF6245CC51D6">https://www.cambridge.org/core/journals/ma</a>
  <a href="mailto:nagement-and-organization-review/article/evolution-of-the-chinese-intellectual-property-rights-system-ipr-law-revisions-and-enforcement/ACEF8E7FC893123D6D95FF6245CC51D6">https://www.cambridge.org/core/journals/ma</a>
  <a href="mailto:nagement-and-organization-review/article/evolution-of-the-chinese-intellectual-property-rights-system-ipr-law-revisions-and-enforcement/ACEF8E7FC893123D6D95FF6245CC51D6">https://www.cambridge.org/core/journals/ma</a>
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  <a href="mailto:nagement-and-organization-revisions-and-organization-revisions-and-enforcement/ACEF8E7FC893123D6D95FF6245CC51D6">https://www.cambridge.org/core/journals/ma</a>
  <a href="mailto:nagement-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revisions-and-organization-revi

- 18. Department of Intellectual Property Thailand (DIP) https://www.ipthailand.go.th/en/
- 19. Intellectual Property Rights in Thailand:
  Overview <a href="https://uk.practicallaw.thomsonreuters.com/w-030-">https://uk.practicallaw.thomsonreuters.com/w-030-</a>
  9027?transitionType=Default&contextData=
  %28sc.Default%29#co anchor a213381
- 20. Thailand laws <a href="https://www.thailandlawonline.com/">https://www.thailandlawonline.com/</a>
- 21. COPYRIGHT ACT https://www.thailandlawonline.com/translations/copyright-law-thailand-intellectual-property
- 22. TRADEMARK ACT <a href="https://www.thailandlawonline.com/translations/trademark-act-intellectual-property-law">https://www.thailandlawonline.com/translations/trademark-act-intellectual-property-law</a>
- 23. PATENT ACT <a href="https://www.thailandlawonline.com/translations/patent-law-in-thailand">https://www.thailandlawonline.com/translations/patent-law-in-thailand</a>
- 24. Copyright Law of the PRC (2021 Version) <a href="https://www.chinalawtranslate.com/en/Copyright-Law-of-the-PRC-(2021-Version)/">https://www.chinalawtranslate.com/en/Copyright-Law-of-the-PRC-(2021-Version)/</a>
- 25. <a href="https://www.natlawreview.com/article/chinas-national-people-s-congress-releases-translation-amended-copyright-law#:~:text=The%20amended%20Copyright%20Law%20is,civil%20fines%20for%20copyright%20infringement.">https://www.natlawreview.com/article/chinas-s-national-people-s-congress-releases-translation-amended-copyright-law#:~:text=The%20amended%20Copyright%20infringement.</a>
- 26. Copyright FAQs <a href="https://iclg.com/practice-areas/copyright-laws-and-regulations/china">https://iclg.com/practice-areas/copyright-laws-and-regulations/china</a>
- 27. Decision of the Standing Committee of the National People's Congress on Amending the Patent Law of the People's Republic of China <a href="http://www.npc.gov.cn/englishnpc/c23934/2">http://www.npc.gov.cn/englishnpc/c23934/2</a> 02109/63b3c7cb2db342fdadacdc4a09ac8364 .shtml
- 28. Regulations on the Protection of Layout-Designs of Integrated Circuits http://www.asianlii.org/cn/legis/cen/laws/rot poloic695/
- 29. Trademark Law of the People's Republic of China pdf file
- 30. Evolution of the Chinese Intellectual
  Property Rights System: IPR Law Revisions
  and Enforcement https://www.cambridge.org/core/journals/ma
  nagement-and-organizationreview/article/evolution-of-the-chineseintellectual-property-rights-system-ipr-lawrevisions-andenforcement/ACEF8E7FC893123D6D95FF
  6245CC51D6

Table 6-1.
List of persons interviewed

No.	Names and Titles	Contact information
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11)	D. Atlanchimeg, Officer, Information Technology Research and Analysis	altanchimeg@mddc.gov.mn
12)	B. Badamsuren, Senior officer for E-government	badamsuren@mddc.gov.mn
13)	B. Bilegdemberel, Director General, Department of Digital Development Policy Implementation	bilegdemberel@mddc.gov.mn
National Information Technology Park		
14)	P. Narantsetseg, Head, Department of the Project Management, Training and Marketing	narantsetseg@itpark.mn
15)	B. Lkhagvasuren, Head, Department of the Innovation Technology Research and Development	lhagvasurenb@itpark.mn
Software development companies		
16)	Mr. A. Battamir, CEO, ICT group	battamir@ictgroup.mn
Mongolian Institute of Certified Appraisers (MICA)		
17)	Ms. P. Bolormaa, Board Member of MICA and Certified valuator/appraiser	bolormaa@aten.mn