



JAMU AND THE PROTECTION OF TRADITIONAL KNOWLEDGE IN INDONESIA LEGAL PERSPECTIVE

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Abstrak

Perlindungan terhadap obat tradisional seperti jamu menghadirkan tantangan hukum yang kompleks di Indonesia, di mana Undang-Undang Paten (UU No. 13 Tahun 2016) mensyaratkan adanya kebaruan, langkah inventif, dan penerapan secara industri, kriteria yang sering kali mengecualikan pengetahuan tradisional berbasis komunitas. Hal ini menimbulkan ketegangan dengan tujuan Perjanjian TRIPS, khususnya Pasal 7, yang berupaya menyeimbangkan inovasi dengan transfer dan penyebaran pengetahuan demi kesejahteraan sosial dan ekonomi. Tujuan dari penelitian ini adalah untuk menganalisis kecukupan rezim paten Indonesia saat ini dalam melindungi obat tradisional serta menilai kebutuhan akan kerangka hukum *sui generis*. Penelitian ini menggunakan metode yuridis normatif dengan mengkaji instrumen internasional seperti TRIPS dan Konvensi Keanekaragaman Hayati (CBD), bersamaan dengan regulasi nasional, termasuk Undang-Undang Paten dan Rancangan Undang-Undang tentang Perlindungan Pengetahuan Tradisional dan Ekspresi Budaya Tradisional (PTEBT). Hasil penelitian menunjukkan bahwa paten, yang bersifat individualistik dan berorientasi pada keuntungan, secara struktural tidak kompatibel dengan pengetahuan tradisional yang bersifat komunal, lintas generasi, dan terkait dengan identitas budaya. Wawasan komparatif dari Filipina dan yurisdiksi lain lebih lanjut menunjukkan bahwa mekanisme alternatif seperti registri pengetahuan tradisional dan perlindungan *sui generis* lebih efektif dalam mencegah biopiracy dan memastikan pembagian manfaat yang adil. Penelitian ini menyimpulkan bahwa meskipun sistem paten berkontribusi terhadap inovasi, sistem tersebut tidak dapat secara memadai melindungi obat tradisional. Oleh karena itu, Indonesia harus mempercepat pembentukan rezim *sui generis* yang selaras dengan fleksibilitas TRIPS sekaligus mengakui kearifan lokal sebagai aset nasional yang vital.

Kata Kunci: Perlindungan hukum; Pengetahuan tradisional; Jamu; HKI.

Abstract

The protection of traditional medicines such as *jamu* presents a complex legal challenge in Indonesia, where the Patent Law (Law No. 13/2016) requires novelty, inventive steps, and industrial applicability, criteria that often exclude community-based traditional knowledge. This creates tension with the objectives of the TRIPS Agreement, particularly Article 7, which seeks to balance innovation with the transfer and dissemination of knowledge for social and economic welfare. The objective of this study is to analyze the adequacy of Indonesia's current patent regime in safeguarding traditional medicines and to assess the necessity of a *sui generis* legal framework. The research adopts a normative juridical method, examining international instruments such as TRIPS and the Convention on Biological Diversity (CBD), alongside national regulations, including the Patent Law and the draft Bill on the Protection of Traditional Knowledge and Traditional Cultural Expressions (PTEBT). Results The results reveal that patents, being individualistic and profit-oriented, are structurally incompatible with traditional knowledge, which is

communal, intergenerational, and tied to cultural identity. Comparative insights from the Philippines and other jurisdictions further demonstrate that alternative mechanisms such as traditional knowledge registries and sui generis protection are more effective in preventing biopiracy and ensuring equitable benefit-sharing. The study concludes that while the patent system contributes to innovation, it cannot adequately safeguard traditional medicines. Therefore, Indonesia must accelerate the establishment of a sui generis regime that harmonizes with TRIPS flexibilities while recognizing local wisdom as a vital national asset.

Keywords: Legal protection; Traditional knowledge; *Jamu*; IPRs.

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1. Introduction

Article 7 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) states^{1,2}, "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations." The main goal of safeguarding and enforcing intellectual property rights is to promote innovation, technological transfer, and dissemination by making people healthier and happier and

finding a balance between rights and duties. Article 7 of the TRIPS Agreement is highly important for pharmacy and traditional medicine since the manufacture and use of traditional medicines as an alternative therapy are becoming more and more common^{3,4,5}. The culture of Indonesian society also backs this up. In general, people in our culture, which is spread out across many locations and isolated places, are not new to traditional medicine^{6,7,8,9,10,11}. Herbal plants are the most common source of traditional remedies that

¹ Carlos Maria Correa, *Trade Related Aspects of Intellectual Property Rights: A Commentary on the TRIPS Agreement* (Oxford University Press, 2020).

² Thomas Cottier, "The Agreement on Trade-Related Aspects of Intellectual Property Rights," in *The World Trade Organization: Legal, Economic and Political Analysis* (Boston, MA: Springer US, n.d.), 1041–1120, doi:10.1007/0-387-22688-5_22.

³ Blakeney Michael and Mengistie Getachew, "Geographical Indications and Economic Development," in *Extending the Protection of Geographical Indications* (Routledge, 2013), 96–112, doi:10.4324/9780203133316-10.

⁴ Subhash C Mandal, Raja Charkaborty, and Saikat Sen, *Evidence Based Validation of Traditional Medicines*, ed. Subhash C. Mandal, Raja Chakraborty, and Saikat Sen (Singapore: Springer Singapore, 2021), doi:10.1007/978-981-15-8127-4.

⁵ Graeme B. Dinwoodie and Rochelle C. Dreyfuss, *A Neofederalist Vision of TRIPS* (Oxford University Press, 2012), doi:10.1093/acprof:oso/9780195304619.001.0001.

⁶ Nurbaya and Chandra, "Pembollo': A Concept of Plant-Based Traditional Medicine among Kaluppini Indigenous People," *IOP Conference Series: Earth and Environmental Science* 486, no. 1 (April 1, 2020): 012016, doi:10.1088/1755-1315/486/1/012016.

⁷ N Purwitasari et al., "Pharmacological Potential of Some Indonesian Medicinal Plants as Promising Options for COVID-19 During the Pandemic Era: A Literature Review," *Journal of Medicinal and Chemical Sciences*, no. 6 (2023): 2735–49, doi:10.26655/JMCHEMSCI.2023.11.18.

⁸ Hurip Pratomo et al., "Utilization of Medicinal Plants for Homemade Herbal Medicine in Selong Sub-District, East Lombok Regency, Indonesia," *Tropical Journal of Natural Product Research* 9, no. 6 (July 1, 2025): 2745–274, doi:10.26538/tjnpr/v9i6.52.

⁹ N Weydmann, "The Recovery of Healthcare: A Case Study of Javanese Medical Practices and Related Discussions about Pluralism in Healthcare," *Visions for Sustainability* 2020, no. 14 (2020): 66–82, doi:10.13135/2384-8677/4561.

¹⁰ T P E Sanubari, R E Rayanti, and P S Arindita, "Women, Bodies, and Medicine: The Tradition of Drinking *Jamu* (Herbal Medicine) among Indonesian Transmigrant Women," *Journal of International Women's Studies* 24, no. 8 (2022).

¹¹ Elfahmi, Herman J. Woerdenbag, and Oliver Kayser, "*Jamu*: Indonesian Traditional Herbal Medicine towards Rational Phytopharmacological Use," *Journal of Herbal Medicine* 4, no. 2 (June 2014): 51–73, doi:10.1016/j.hermed.2014.01.002.

people in the community utilize^{12,13,14,15}. Indonesia is in the tropics, therefore it has a lot of plants, this is a big plus since each plant has active substances that have been shown to be good for human health^{16,17,18,19,20}. This is shown by the fact that people have used herbal plants for a long time. Using herbal plants as traditional medicine for a long time is safer than using contemporary pharmaceuticals, which means that the side effects are usually less severe. That means that conventional medicine might become alternative medicine in the future. Some traditional medicines that

people have used for a long time, such herbal beverages sold by vendors (*jamu gendong*) and Madura astringent herbal drinks (*jamu sepet madura*)^{21,22,23} long been acknowledged by the community to be good for health^{24,25,26,27}. Those herbal medications are manufactured from herbal mixtures that come from Madura. Indonesia has a lot of different medicinal plants (*Toga*) that have been used for centuries and have been shown to work to treat many different illnesses²⁸. Toga has a lot of economic potential as a raw material for medication since it may be a major source of

¹² Jandirk Sendker and Helen Sheridan, "History and Current Status of Herbal Medicines," in *Toxicology of Herbal Products* (Cham: Springer International Publishing, 2017), 11–27, doi:10.1007/978-3-319-43806-1_2.

¹³ Aktieva Tri Tjitrawati and Mochamad Kevin Romadhona, "Living beyond Borders: The International Legal Framework to Protecting Rights to Health of Indonesian Illegal Migrant Workers in Malaysia," *International Journal of Migration, Health and Social Care* 20, no. 2 (May 17, 2024): 227–45, doi:10.1108/IJMHS-04-2023-0038.

¹⁴ Ameenah Gurib-Fakim, "Medicinal Plants: Traditions of Yesterday and Drugs of Tomorrow," *Molecular Aspects of Medicine* 27, no. 1 (February 2006): 1–93, doi:10.1016/j.mam.2005.07.008.

¹⁵ Atanas G. Atanasov et al., "Discovery and Resupply of Pharmacologically Active Plant-Derived Natural Products: A Review," *Biotechnology Advances* 33, no. 8 (December 2015): 1582–1614, doi:10.1016/j.biotechadv.2015.08.001.

¹⁶ Ari S. Nugraha and Paul A. Keller, "Revealing Indigenous Indonesian Traditional Medicine: Anti-Infective Agents," *Natural Product Communications* 6, no. 12 (December 1, 2011), doi:10.1177/1934578X1100601240.

¹⁷ A M Jaya et al., "Ethnobotanical Study and Identification of Medicinal Plants Based on Local Knowledge," *IOP Conference Series: Earth and Environmental Science* 343, no. 1 (October 1, 2019): 012028, doi:10.1088/1755-1315/343/1/012028.

¹⁸ Mochamad Kevin Romadhona, Bambang Sugeng Ariadi Subagyono, and Dwi Agustin, "Examining Sustainability Dimension in Corporate Social Responsibility of ExxonMobil Cepu: An Overview of Socio-Cultural and Economic Aspects," *Journal of Social Development Studies* 3, no. 2 (n.d.).

¹⁹ Vivi Septya Wati et al., "Indonesian Indonesian Medicine Plants for Mental Health Disorders: Anxiety and Depression," *Indonesian Journal of Pharmacy*, March 25, 2024, 37–62, doi:10.22146/ijp.7801.

²⁰ Muhammad Gaidy Wiratama, Bambang Sugeng Ariadi Subagyono, and Mochamad Kevin Romadhona, "Implementation of Legal Efforts Consumer Protection

and Dispute Settlement of Social-Health Insurance Participants for Indonesian Migrant Workers.," *Malaysian Journal of Medicine & Health Sciences* 19 (2023).

²¹ Susan-Jane Beers, *Jamu: The Ancient Indonesian Art of Herbal Healing* (Tuttle Publishing, 2012).

²² Laila Khamsatul Muharrami, Mardi Santoso, and Sri Fatmawati, "Traditional Medicine Uses of Madurese Ethnic, Indonesia: Indigenous Knowledge 'Jamu' in Relation with Medicinal Plants," *Journal of Human University Natural Sciences* 51, no. 10 (2024).

²³ Ahmad M Ridwan, "Perlindungan Pengetahuan Tradisional Terkait Dengan Keanekaragaman Hayati Di Indonesia," *Pemuliaan Hukum* 1, no. 1 (2018).

²⁴ Kiki Fibrianto, Vita Devianti Putri, and Gabriel Madona Regina, "Consumer Sensory Perception of Jamu Gendong: The Traditional Javanese Herbal Drink," *BIO Web of Conferences* 165 (March 7, 2025): 07003, doi:10.1051/bioconf/202516507003.

²⁵ Bambang Sugeng Ariadi Subagyono, Zahry Vandawati Chumaida, and Mochamad Kevin Romadhona, "Enforcement of Consumer Rights Through Dispute Settlement Resolution Agency to Improve the Consumer Satisfaction Index In Indonesia," *Yuridika* 37, nos. 3 SE-Civil Law (September 2022): 673–96, doi:10.20473/ydk.v37i3.34943.

²⁶ Teti Estiasih et al., "Indonesian Traditional Herbal Drinks: Diversity, Processing, and Health Benefits," *Journal of Ethnic Foods* 12, no. 1 (February 21, 2025): 7, doi:10.1186/s42779-025-00267-5.

²⁷ Sonny Kristianto et al., "IDENTIFICATION AND CHARACTERIZATION OF SHOGAOL AND 6-GINGEROL COMPLEX FROM MADURESE HERBAL MEDICINE," *Egyptian Journal of Chemistry* 0, no. 0 (September 21, 2021): 0–0, doi:10.21608/ejchem.2021.87143.4215.

²⁸ Min Rahminiwati et al., "Indonesian Medicinal Plants with Anti-Inflammatory Properties and Potency as Chronic Obstructive Pulmonary Disease (COPD) Herbal Medicine," *Pharmacognosy Journal* 14, no. 4 (September 5, 2022): 432–44, doi:10.5530/pj.2022.14.119.

revenue and is worth a lot of money²⁹. On the other side, the Toga's security isn't yet at its best, which leads to a lot of thefts of the Toga that unauthorized people subsequently use. This means that Toga has to be legally protected as part of customary knowledge.

The Indonesia Patent Law, which is based on Law No. 14 of 2001^{30,31}, and Law No. 65 of 2024³², protects contemporary medications made by pharmaceutical corporations. A patent is a special privilege given to an inventor by the government for the results of their innovation in the area of technology. This lets them use the invention themselves for a certain amount of time or let others use it. In the meanwhile, an innovation is an inventor's concept that is put into action to solve a problem in the area of technology. This may be a new product or process, or an enhancement or development of an existing product or process. An inventor is someone who puts an idea into action, either by themselves or with others, that leads to an innovation.

A patent may be obtained for pharmaceutical innovations if they fulfill the criteria for patentability. The question is whether herbal medicines, which are a kind of traditional medicine, may also be patented. This is because the term "traditional" means "communal," which means that the ownership is shared, but the patent system, which is part of the IPR system, is in essence individual.

Can the Patent Law safeguard traditional medicine (herbal remedies), which is a part of customary knowledge? If we look at the conditions for patents, especially those that have to do with novelty, herbal medicine is not likely to get patent protection since it is not new. This is because people already knew a lot about herbal cures and herbal medications as traditional medicines. The Indonesia Patent Law's Article 7, paragraph b, and Article 7, paragraph^{33,34,35,36}, also make it hard to get patents for traditional treatments (herbal remedies). Both of these have to do with deviations to the rules for giving out patents. It also doesn't fulfill the condition of an inventive step, which says that the invention must be new from a technical point of view. But herbal cures and the like are a way for people to pass on traditional knowledge from one generation to the next, which makes it hard to fulfill the creative step criterion. Traditional herbal medicine is different from copyrighted pharmaceuticals that are typically discovered via research and development procedures, which are based on particular scientific approaches, including pharmacology, as the science of medicine.

For an invention to get a patent, it must be useful or applicable in an industrial setting. This means that it can be made using different types of industries. In other words, the claims made in the patent document can be carried out by following the instructions in the patent

²⁹ Nutrisia Aquariushinta Sayuti and Nur Atikah, "The Pattern of Herbal Medicines Use for Breastfeeding Mother in Jogonalan, Klaten, Indonesia: A Mini Survey," *BMC Complementary Medicine and Therapies* 23, no. 1 (November 7, 2023): 399, doi:10.1186/s12906-023-04235-x.

³⁰ Mahoro Jean Claude Geoffrey and Kholis Roisah, "Patenting Deal in Indonesia, Article 20 of The Patent Law in The Political Perspective of International Trade Law," *LAW REFORM* 16, no. 1 (March 27, 2020): 19–31, doi:10.14710/lr.v16i1.30302.

³¹ A Sujatmiko, M K Romadhona, and Y R Saraswati, "Patents at the Crossroads: Legal Pathways for Advancing Technology Transfer in Indonesia," *Law Reform: Jurnal Pembaharuan Hukum* 21, no. 1 (2025): 94–119, doi:10.14710/lr.v21i1.64666.

³² Agung Sujatmiko et al., "The Legal Reform of Trademark Protection and Dispute Mitigation: Lessons from Licensing Well-Established Brands in Indonesia,"

Journal of Law and Legal Reform 5, no. 2 (2024): 459–94.

³³ Muhammad Hawin, "Determining an Appropriate Patent Working Requirement for Indonesia," *The Journal of World Intellectual Property*, July 12, 2025, doi:10.1111/jwip.70003.

³⁴ Yulia Yulia, "The Protection of Traditional Knowledge Under Indonesian Patent Law: Between Opportunities and Challenges," *Indonesian Journal of International Law* 18, no. 3 (April 30, 2021), doi:10.17304/ijil.vol18.3.815.

³⁵ M Rahmah, N Barizah, and S Blay, "Ensuring Disclosure of Origin of Genetic Resources in Patent Applications: Indonesia's Efforts to Combat Biopiracy," *Journal of Intellectual Property Rights* 25, nos. 1–2 (2020): 40–56.

³⁶ Endang Purwaningsih, "Patent Law and Its Enforcement in Indonesia, Japan and the USA," *Jurnal Media Hukum* 27, no. 1 (2020), doi:10.18196/jmh.20200138.

specification. This implies that the technological creation must be made public so that anybody with technical skills in the subject may use it. If the creator can't show how the idea may be used in manufacturing or industry, it can't get a patent. This rule is a reward for anyone who could get a patent. They have to be able to educate others how to utilize the innovation. This will lead to more technical progress since everyone will have a chance to learn about these new discoveries.

This might lead to the discovery of new, better technologies as a consequence of more study on the inventions in issue. For example, a traditional herbal medicine seller would not be able to meet those needs since they make their products based on information that has been handed down through centuries. In general, people in society today know a lot about herbal medicine, but not everyone knows how to use that information to cure themselves. This fits with the conventional definition, which is that knowledge is handed down from one generation to the next based on the traditions of the community that supports it. Since of this, herbal medicine protection has not yet been given a patent since it does not fulfill the standards for a novel invention, include an innovative step, or be useful in industry. These three conditions must all be satisfied at the same time. A patent cannot be awarded if any one of these conditions is not satisfied. So, the government has to make a big change and take real efforts to safeguard traditional medicine, including herbal treatments. This protection is extremely vital to provide traditional herbal medicine (*jamu*) the ability to be used for the good of the people and to make money.

Many nations that are members of the TRIPs agreement have previously suggested that it should also encompass traditional knowledge. At the fourth WTO Ministerial

Conference in Doha in November 2001^{37,38,39}, it was suggested that the TRIPs agreement be changed to include the CBD in order to safeguard traditional knowledge in all its manifestations, such as traditional medicine (*jamu*). WIPO is also working on an international convention about traditional knowledge and folklore at the same time. These two items are an excellent place to start when it comes to conserving traditional knowledge in all its forms. They put a lot of emphasis on ways to preserve and value traditional works in all their forms. So, Indonesia is presently working on a bill called the Protection and Utilization of Traditional Knowledge and Traditional Cultural Expressions (PTEBT Bill). The PTEBT Bill is a government initiative that has to be finished promptly with the help of the House of Representatives so that there is a legal framework for regulating traditional knowledge. This research will talk about how to conserve traditional knowledge, especially herbal medicine (*jamu*) that is still used in society.

2. Research Methodology

This study was composed using a normative research methodology, including both a legislative regulatory framework and a conceptual approach. Some of the legal materials are regulations in the field of Intellectual Property Rights related to the main issue. Inductive analysis is used to look at a number of social issues from a conceptual point of view.

3. Results and Discussion

Protection of Traditional Medicine (*Jamu*) Based on Patent Law

The government, thru Law Number 65 of 2024, has revised and improved Law Number 14 of 2001 and Law Number 13 of

³⁷ Megan Bowman, "Intellectual Property Rights, Plant Genetic Resources and International Law: Potential Conflicts and Options for Reconciliation," *International Journal of Intellectual Property Management* 1, no. 4 (2007): 277, doi:10.1504/IJIPM.2007.014526.

³⁸ Wan Izatul Asma Wan Talaat, Norhayati Mohd Tahir, and Mohd Lokman Husain, "Traditional Knowledge on Genetic Resources: Safeguarding the Cultural

Sustenance of Indigenous Communities," *Asian Social Science* 8, no. 7 (May 28, 2012), doi:10.5539/ass.v8n7p184.

³⁹ F. M. Abbott, "The Doha Declaration on the TRIPs Agreement and Public Health: Lighting a Dark Corner at the WTO," *Journal of International Economic Law* 5, no. 2 (June 1, 2002): 469–505, doi:10.1093/jiel/5.2.469.

2016 concerning Patents^{40,41,42,43,44}. Law Number 65 of 2024 is the third improvement to the previously regulated Patent laws^{45,46,47,48,49}. The improvement aims to provide convenience and increase domestic patent registration, which is felt to be still low. A patent is a new discovery in the field of technology that is novel, contains an inventive step, and can be applied in industry⁵⁰. In order for an invention to be granted a patent, it must be registered with the Directorate General of

Intellectual Property at the Ministry of Law of the Republic of Indonesia. This is a consequence of the constitutive system adopted by Patent Law No. 65 of 2024, as also adopted in Trademark Law No. 20 of 2016^{51,52,53}.

Patents are one of the intellectual property rights (IPR) regimes that provide many benefits for human life^{54,55,56,57}. One type of patent related to pharmaceuticals is a pharmaceutical patent^{58,59,60}. In the field of

⁴⁰ Yulia, "The Protection of Traditional Knowledge Under Indonesian Patent Law: Between Opportunities and Challenges."

⁴¹ Muhamad Amirulloh and Helitha Novianty Muchtar, "Problems and Strategies to Maintain the Existence of Domestic Registered Patents in Indonesia to Promote the Economic Growth," *The Journal of World Intellectual Property* 27, no. 2 (July 24, 2024): 296–313, doi:10.1111/jwip.12300.

⁴² Rahayu et al., "Fulfillment of Public Health Access Post Amendment to Law Number 13 of 2016 on Patents," 2023, 080010, doi:10.1063/5.0142994.

⁴³ Devica Rully Masrur et al., "Biopiracy and the Regulatory Framework for Material Transfer Agreements in Indonesia," *LAW REFORM* 20, no. 1 (May 30, 2024): 76–105, doi:10.14710/lr.v20i1.57001.

⁴⁴ T Mantoro, Y Prihastomo, and M A Ayu, "Intellectual Property Right Dissemination Service Based on Mobile User Location in Indonesia," *Internetworking Indonesia Journal* 5, no. 1 (2013): 21–29.

⁴⁵ M Cholil Nafis, "Dhamānu Muntijāti Al-Halāl Li Himāyati Huqūqi al-Mustahlikīn," *AL-IHKAM: Jurnal Hukum & Pranata Sosial* 15, no. 2 (December 29, 2020): 301–25, doi:10.19105/al-lhkam.v15i2.3660.

⁴⁶ Hedvig Schmidt, "Intellectual Property Rights and Market Definitions under Scrutiny—Is the Commission's New Notice Innovative Enough?," *Journal of Antitrust Enforcement*, April 3, 2025, doi:10.1093/jaenfo/jnaf014.

⁴⁷ Sri Endah Kinasih et al., "Human Migration, Infectious Diseases, Plague, Global Health Crisis - Historical Evidence," *Cogent Arts & Humanities* 11, no. 1 (December 31, 2024): 2392399, doi:10.1080/23311983.2024.2392399.

⁴⁸ Putu Aras Samsithawrati et al., "Traditional Knowledge and Traditional Cultural Expressions as Communal Intellectual Property: Are They Protected Under the WIPO Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge 2024?," *Jurnal Pembangunan Hukum Indonesia* 7, no. 1 (2024): 1–26.

⁴⁹ Vania Lutfi Safira Erlangga et al., "Patent Suspension on the COVID-19 Vaccine in Indonesian Patent Law Perspective," *Cogent Social Sciences* 9, no. 1 (December 31, 2023), doi:10.1080/23311886.2023.2202936.

⁵⁰ Sujatmiko, Romadhona, and Saraswati, "Patents at the Crossroads: Legal Pathways for Advancing Technology Transfer in Indonesia."

⁵¹ Aktieva Tri Tjitrawati et al., "The Palu Disaster and Indonesia's Obligation to Ensure the Right of Adequate Housing and Land Rights: Mission Accomplished?," in *The Asian Yearbook of Human Rights and Humanitarian Law* (Brill | Nijhoff, 2024), 311–51, doi:10.1163/9789004706477_011.

⁵² Sujatmiko, Romadhona, and Saraswati, "Patents at the Crossroads: Legal Pathways for Advancing Technology Transfer in Indonesia."

⁵³ Mochamad Kevin Romadhona, "Does the Pandemic Affect Unemployment Rate in East Java?(A Study of Pre and Post COVID-19 Pandemic in 2016 to 2021)," *The Journal of Indonesia Sustainable Development Planning* 3, no. 2 (2022): 164–76.

⁵⁴ Yee Kyoung Kim et al., "Appropriate Intellectual Property Protection and Economic Growth in Countries at Different Levels of Development," *Research Policy* 41, no. 2 (March 2012): 358–75, doi:10.1016/j.respol.2011.09.003.

⁵⁵ Peter Grindley, "Patents," in *The Palgrave Encyclopedia of Strategic Management* (London: Palgrave Macmillan UK, 2018), 1253–56, doi:10.1057/978-1-137-00772-8_778.

⁵⁶ Daniel Spulber, *The Case for Patents* (WORLD SCIENTIFIC, 2021), doi:10.1142/11976.

⁵⁷ Gokay Canberk Bulus and Ibrahim Bakirtas, "Patent, Utility Model, and Economic Growth," 2021, 309–35, doi:10.1007/978-3-030-84931-3_13.

⁵⁸ Allen C. Nunnally et al., "Genetic Patent Protection in the Pharmaceutical and Biotechnology Industries," *Public Health Genomics* 8, no. 4 (2005): 209–16, doi:10.1159/000087957.

⁵⁹ Ngoc Ha Nguyen, "L'accès Aux Médicaments : Quelles Contributions Des Règles Sur Les Brevets de l'Accord de Partenariat Transpacifique Global et Progressiste?," *Médecine & Droit* 2019, no. 159 (December 2019): 145–52, doi:10.1016/j.meddro.2019.04.003.

⁶⁰ Y Li, "Intellectual Property and Public Health: Two Sides of the Same Coin," in *Asian Journal of WTO and International Health Law and Policy*, vol. 6, 2011, 389–427.

pharmacy, in accordance with Minister of Health Regulation No. 1575/MenKes/Per/XI/2005⁶¹, there is the Directorate General of Pharmaceutical and Medical Device Development⁶², which is tasked with formulating and implementing policies and technical standards in the field of pharmaceutical and medical device development. In order to carry out these tasks, the Directorate General of Pharmaceutical and Medical Device Development performs the following functions:^{63,64,65, 66}

1. Preparing policy formulation in the field of rational drug use development, community and clinical pharmacy, public drugs and health supplies, and medical device production and distribution development;
2. Implementing policies in the field of rational drug use development, community and clinical pharmacy, public drugs and health supplies, and medical device production and distribution development;
3. Developing standards, norms, guidelines, criteria, and procedures in the field of rational drug use development, community and clinical pharmacy, public drugs and health supplies, and medical device production and distribution development;

4. Formulating policies and permits related to drugs and food in accordance with applicable laws and regulations;
5. Providing technical guidance and evaluation;
6. Carrying out the administration of the Directorate General.

Article 7 of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) states^{67,68,69,70}, "The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and the transfer and dissemination of technology to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations." Based on this, the fundamental aim of intellectual property rights protection and enforcement is to encourage innovation, technology transfer, and dissemination by creating social and economic well-being and a balance between rights and obligations.

In the field of pharmacy and traditional medicine, the provisions of Article 7 of the TRIPS Agreement are very

⁶¹ Yuyun Yuniar et al., "The Implementation of Pharmaceutical Services Standard in 43 Hospitals in Indonesia," *Enfermería Clínica* 30 (October 2020): 192–96, doi:10.1016/j.enfcli.2020.06.043.

⁶² M T Ghozali, A Layland, and N Fadila, "Performance Appraisal On Clinical Pharmacy Service In The Public Health Centers Of Sambas Sub-District, West Kalimantan," *Academy of Strategic Management Journal* 20, no. SpecialIssue2 (2021): 1–10.

⁶³ YB Dwi Setianto and Shinta Estri Wahyuningrum, "Medical Device Authentication and Authorization Protocol in Indonesian Telemedicine Systems," in *2019 4th International Conference on Information Technology (InCIT)* (IEEE, 2019), 89–93, doi:10.1109/INCIT.2019.8912058.

⁶⁴ Sri Endah Kinasih et al., "Human Migration, Infectious Diseases, Plague, Global Health Crisis - Historical Evidence," *Cogent Arts & Humanities* 11, no. 1 (December 31, 2024), doi:10.1080/23311983.2024.2392399.

⁶⁵ Dini Prasetyawati et al., "Indonesia's Initiatives in Implementing Medical Device Nomenclature Standards:

Current Gaps with Global Standards," 2025, doi:10.3233/SHTI250804.

⁶⁶ Wiryanto Wiryanto, Harri Tanjung, and Reski Rumonda, "Implementation of Standards for Managing Pharmaceutical, Medical Devices and Disposable Medical Materials in Community Pharmacy in Medan City," *Open Access Macedonian Journal of Medical Sciences* 7, no. 22 (November 14, 2019): 3769–73, doi:10.3889/oamjms.2019.532.

⁶⁷ Francisco Hernández Fernández, "Technology Transfer Under the TRIPS Agreement: A Comeback to Address Global Crises," 2025, 61–86, doi:10.1007/8165_2024_122.

⁶⁸ V E Hopkins, "Analysis of International Patent Protection and Global Public Health," *Journal of Public and International Affairs* 17 (2006): 83–109.

⁶⁹ R Yahdi Ramadani, Aktieva Tri Tjitrawati, and Mochamad Kevin Romadhona, "Humanitarian Commitment: Indonesia's Policy on Refugees' Rights to Health," *Healthcare in Low-Resource Settings* 12, no. s2 (January 29, 2025), doi:10.4081/hls.2024.12603.

⁷⁰ Mochamad Kevin Romadhona et al., "Re-Defining Stunting in Indonesia 2022: A Comprehensive Review," *Jurnal Inovasi Ilmu Sosial Dan Politik (JISoP)* 5, no. 1 (July 25, 2023): 56–63, doi:10.33474/jisop.v5i1.19741.

significant^{71,72,73,74}, considering that the production and use of traditional medicines as an alternative treatment are currently being intensified. This is also supported by Indonesian societal culture. Generally, our society, which is spread across various regions and remote areas, is no stranger to traditional medicine.

Generally, the traditional medicines frequently used by the community are those derived from herbal plants. Indonesia, located in the tropics, naturally boasts a wealth of plant life, which is a distinct advantage because each plant contains active compounds that have been found to be beneficial for human health^{75,76,77,78,79,80,81,82,83}. This is evidenced by the use of herbal plants since ancient times. The long-term use of herbal plants as

traditional medicine is safer than consuming modern drugs, meaning the side effects are relatively smaller^{84,85,86,87}. Based on that, traditional medicine can be developed into alternative medicine in the future. Some traditional medicines that have been used in society for a long time, such as *jamu gendong* and *jamu sepet Madura*, have long been known by the community as medicines that

⁷¹ R. Yahdi Ramadani et al., "The Rights to Health for All: Is Indonesia Fully Committed to Protected Refugees and Asylum Seekers?," *Jurnal Hubungan Luar Negeri* 8, no. 2 (December 28, 2023): 55–80, doi:10.70836/jh.v8i2.11.

⁷² Alison Slade, "The Objectives and Principles of the WTO TRIPS Agreement: A Detailed Anatomy," *Osgoode Hall Law Journal* 53, no. 3 (January 1, 2016): 948–98, doi:10.60082/2817-5069.3042.

⁷³ K Liu et al., "Intellectual Property Rights and Access to Medicine in the Traditional Chinese Medicine Legal System: From a Chinese Perspective," *Medicine and Law* 38, no. 3 (2019): 443–60.

⁷⁴ Karin Timmermans, "Intellectual Property Rights and Traditional Medicine: Policy Dilemmas at the Interface," *Social Science & Medicine* 57, no. 4 (August 2003): 745–56, doi:10.1016/S0277-9536(02)00425-2.

⁷⁵ Inggit Puji Astuti et al., "Assessment of the Medicinal Flora for Treating Skin Disorders in Indonesia," in *Ethnopharmacology and OMICS Advances in Medicinal Plants Volume 1* (Singapore: Springer Nature Singapore, 2024), 17–55, doi:10.1007/978-981-97-2367-6_2.

⁷⁶ Rahminiwati et al., "Indonesian Medicinal Plants with Anti-Inflammatory Properties and Potency as Chronic Obstructive Pulmonary Disease (COPD) Herbal Medicine."

⁷⁷ Anisa Nuraini et al., "Diversity and Use Medicinal Plants for Traditional Women's Health Care in Kalibawang, Wonosobo District, Indonesia," *Asian Journal of Ethnobiology* 7, no. 2 (January 17, 2025), doi:10.13057/asianjethnobiol/y070207.

⁷⁸ R.A. Mustafa et al., "Total Phenolic Compounds, Flavonoids, and Radical Scavenging Activity of 21 Selected Tropical Plants," *Journal of Food Science* 75, no. 1 (January 11, 2010), doi:10.1111/j.1750-3841.2009.01401.x.

⁷⁹ Suyatmi and R N Pesik, "Optimizing the Health Benefit of Indonesian Plant Medicine for Cancer

Treatment," *IOP Conference Series: Earth and Environmental Science* 824, no. 1 (July 1, 2021): 012056, doi:10.1088/1755-1315/824/1/012056.

⁸⁰ Mega S Pertiwi et al., "Potential Indonesian Plants as Energy Boosters," *Reviews in Agricultural Science* 12, no. 0 (2024): 401–20, doi:10.7831/ras.12.0_401.

⁸¹ I Batubara and M E Prastya, "Potential Use of Indonesian Medicinal Plants for Cosmetic and Oral Health: A Review," *Jurnal Kimia Valensi* 6, no. 1 (2020): 118–32, doi:10.15408/jkv.v6i1.16252.

⁸² I.W. Arsanti and Hardiyanto, "Benefiting Communities by Using Plant Genetic Resources in Some Community Biodiversity Management Areas in Indonesia," *Acta Horticulturae*, no. 1267 (January 2020): 167–74, doi:10.17660/ActaHortic.2020.1267.26.

⁸³ Ririn Nur Fadhilah et al., "Ethnomedicinal Knowledge of Traditional Healers on Medicinal Plants in Sukoharjo District, Central Java, Indonesia," *Biodiversitas Journal of Biological Diversity* 24, no. 8 (August 25, 2023), doi:10.13057/biodiv/d240803.

⁸⁴ Jong Pil Park et al., "Potential Agents for Cancer and Obesity Treatment with Herbal Medicines from the Green Garden," *Biotechnology and Bioprocess Engineering* 16, no. 6 (December 3, 2011): 1065–76, doi:10.1007/s12257-011-0215-3.

⁸⁵ Ashok Kumar Malik et al., "Exploring the Pharmacological Evaluation of Indian Medicinal Herbs for Managing Diabetes," *Current Analytical Chemistry* 21 (February 26, 2025), doi:10.2174/0115734110343503250217080253.

⁸⁶ A Shirwaikar et al., "Phytotherapy-Safety Aspects," *Natural Product Radiance* 8, no. 1 (2009): 55–63.

⁸⁷ J O Ogbodo et al., "Therapeutic Role of Phenolic Antioxidants in Herbal Medicine," in *Health Benefits of Phenolic Antioxidants*, 2022, 135–64.

can have a positive effect on health^{88,89,90,91}. Those herbal medicines are made from herbal concoctions originating from Madura^{92,93,94,95,96}. A patent is an exclusive right granted by the state to an inventor for the results of their invention in the field of technology, which allows the inventor to personally implement the invention or grant permission to another party to do so for a certain period of time (Article 1, paragraph 1 of Law No. 14 of 2001 concerning Patents, hereinafter referred to as the Patent Law)⁹⁷.

Meanwhile, an invention is the inventor's idea expressed in a specific problem-solving activity in the field of technology, which can be a product or process, or an improvement and development of a product or process (Article 1, paragraph (2) of the Patent Law). An inventor is a person or a group of people who individually or jointly carry out the idea expressed in the activity that results in an invention (Article 1, paragraph (3) of the Patent Law).

From several formulations of the UUP article, it is known that in order to be granted a patent, there must be an inventor (subject), an object (invention), and the nature of the invention. In Article 2 paragraph (1) of the Patent Law, it is explained that the requirements for granting a patent are: a. The invention must be new; The meaning of "new" in this case is an invention that is not the same

as existing discoveries. The standard used by the Patent Law is world-wide novelty, meaning its novelty is global, not just new in a single country (local).

Article 3 paragraph (1) of the Patent Law requires that an invention is considered new if, on the date of receipt, the invention is not identical to the previously disclosed technology. Previously disclosed technology is technology that has been announced in Indonesia or outside Indonesia in writing, oral description, demonstration, or any other means that would enable a person skilled in the art to carry out the invention before the date of receipt or priority date. Such previously disclosed technology includes application documents filed in Indonesia that are published on or after the date of receipt and are undergoing substantive examination, but the date of receipt is earlier than the date of receipt or priority date of the application. b. The invention must involve an inventive step; This means that the invention is not obvious to a person skilled in the art (Article 2 paragraph 2 of the Patent Law). Furthermore, Article 2 paragraph 3 of the Patent Law requires that the assessment of whether an invention is not obvious must be made with consideration of the skill existing at the time the application is filed or that existed at the time the first application was filed if the application is filed with priority rights.

⁸⁸ Fibrianto, Putri, and Regina, "Consumer Sensory Perception of Jamu Gendong: The Traditional Javanese Herbal Drink."

⁸⁹ Retno Widyowati and Mangestuti Agil, "Chemical Constituents and Bioactivities of Several Indonesian Plants Typically Used in Jamu," *Chemical and Pharmaceutical Bulletin* 66, no. 5 (May 1, 2018): 506–18, doi:10.1248/cpb.c17-00983.

⁹⁰ Selva Rosyta Dewi et al., "Antibacterial Test of Various Ingredients of 'Indonesian Jamu,'" 2018, 040013, doi:10.1063/1.5061883.

⁹¹ F Husain et al., "Ethnobotanical Knowledge on Jamu Herbal Drink among Consumer in Semarang," *IOP Conference Series: Earth and Environmental Science* 743, no. 1 (May 1, 2021): 012019, doi:10.1088/1755-1315/743/1/012019.

⁹² Netty Herawati et al., "Model of Brand Image Jamu Madura through Product Knowledge, Brand Communication and Packaging Attractiveness," *BIO Web of Conferences* 146 (November 27, 2024): 01046, doi:10.1051/bioconf/202414601046.

⁹³ A Widyawaruyanti et al., "Traditional Medicine of Madura Island in Indonesia," *Journal of Traditional*

Medicines 24, no. 3 (2007): 90–103, doi:10.11339/jtm.24.90.

⁹⁴ Akhmad Fathir, Moch. Haikal, and Didik Wahyudi, "Ethnobotanical Study of Medicinal Plants Used for Maintaining Stamina in Madura Ethnic, East Java, Indonesia," *Biodiversitas Journal of Biological Diversity* 22, no. 1 (January 3, 2021), doi:10.13057/biodiv/d220147.

⁹⁵ Dian Diniyati et al., "Household Resilience of Women Migrant Worker Sellers of Jamu Gendong," *F1000Research* 13 (November 22, 2024): 25, doi:10.12688/f1000research.142709.3.

⁹⁶ Maria Costanza Torri, "The Emergence of Traditional Indonesian Herbal Medicine (Jamu) for Cosmetic Use: New Avenues for the Revitalisation of Javanese Health and Cosmetic Traditions through Gender Entrepreneurship?," *International Journal of Entrepreneurship and Small Business* 16, no. 1 (2012): 48, doi:10.1504/IJESB.2012.046916.

⁹⁷ Yulia, "The Protection of Traditional Knowledge Under Indonesian Patent Law: Between Opportunities and Challenges."

The invention can be applied in the industrial sector; Article 5 of the Patent Law requires that an invention can be applied in the industrial sector if it can be implemented in industry as described in the application.

However, the Patent Law also contains restrictions on certain inventions that cannot be patented, as stipulated in Article 7 of the Patent Law, namely: (Jaelani et al., 2019)

1. Processes or products whose disclosure, use, or implementation is contrary to applicable laws and regulations, religious morality, public order, or decency;
2. methods of examination, care, treatment, and/or surgery applied to humans and/or animals;
3. theories and methods in the fields of science and mathematics;
4. (i) all living beings, except microorganisms; (ii) biological processes essential for producing plants or animals, except non-biological or microbiological processes.

Article 7 of the UUP provides an explanation that even if an invention is new, involves an inventive step, and is applicable in the industrial field, it cannot be patented if it contains any of the elements related to that article. This means that if an invention does not meet the criteria of Article 7 of the UUP, it can be patented. Regarding inventions in the field of pharmaceuticals, patents can be granted

because pharmaceuticals meet the requirements for patentability as stipulated in Article 2 of the UUP. The issue arises with traditional medicines: can they also be patented, considering that the word "traditional" attached to them reflects the word "communal," meaning their ownership is shared, while the patent regime, which is part of the IPR regime, is in principle individual. Based on that, there was a contradiction between the two. Therefore, further study is needed regarding the requirements for granting patents for traditional medicines.

Protection Based on Traditional Knowledge, Grounded in Local Wisdom

In the literature, traditional medicine (*jamu*) is categorized as traditional knowledge, which is part of the intellectual property rights regime^{98,99,100,101,102,103}. Essentially, traditional knowledge is knowledge developed by an indigenous community or intellectual works based on tradition^{104,105,106}. That knowledge or work is used by one generation, passed on to the next, and develops according to the needs of the community in a specific region. This is as stated by M. Hawin. M. Hawin believes that traditional knowledge includes methods of cultivating and processing plants (agriculture), medicine, drugs, food and beverage recipes, arts, and so on¹⁰⁷. Drugs included in this category are traditional medicines in the form

⁹⁸ Thomas Galih Satria et al., "Casual Game Design to Introduce Jamu," *Procedia Computer Science* 216 (2023): 557–64, doi:10.1016/j.procs.2022.12.169.

⁹⁹ Elfahmi, Woerdenbag, and Kayser, "Jamu: Indonesian Traditional Herbal Medicine towards Rational Phytopharmacological Use."

¹⁰⁰ Reggie Surya et al., "Compositions and Health Benefits of Different Types of Jamu, Traditional Medicinal Drinks Popular in Indonesia," 2024, 1–33, doi:10.1007/978-3-031-04195-2_123-1.

¹⁰¹ S Kristianto et al., "Exploration and Economic Value of Medicinal Plants as Traditional Herbal Ingredients in Bangselok, Madura, Indonesia," in *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 2020.

¹⁰² Ridowati Gunawan and Khabib Mustofa, "Finding Knowledge from Indonesian Traditional Medicine Using Semantic Web Rule Language," *International Journal of Electrical and Computer Engineering (IJECE)* 7, no. 6 (December 1, 2017): 3674, doi:10.11591/ijece.v7i6.pp3674-3682.

¹⁰³ A Sujatmiko, "A Model of Legal Protection for Traditional Medicines (Jamu) as Part of Traditional Knowledge," *Review of International Geographical Education Online* 11, no. 4 (2021): 181–89, doi:10.33403/rigeo.800635.

¹⁰⁴ Claudia Finetti, "Traditional Knowledge and the Patent System: Two Worlds Apart?," *World Patent Information* 33, no. 1 (March 2011): 58–66, doi:10.1016/j.wpi.2010.03.005.

¹⁰⁵ R Lakshmi Poorna, M Mymoon, and A Hariharan, "Preservation and Protection of Traditional Knowledge - Diverse Documentation Initiatives across the Globe," *Current Science* 107, no. 8 (2014): 1240–46.

¹⁰⁶ Wan Talaat, Mohd Tahir, and Husain, "Traditional Knowledge on Genetic Resources: Safeguarding the Cultural Sustainance of Indigenous Communities."

¹⁰⁷ Muhammad Hawin and Budi Agus Riswandi, *Isu-Isu Penting Hak Kekayaan Intelektual Di Indonesia* (UGM Press, 2020).

of herbal remedies, concoctions, and the like. According to M. Hawin, protecting traditional medicines and concoctions that fall under the category of traditional knowledge is felt to be necessary, considering that traditional knowledge is an important source of knowledge related to human life that can be commercialized¹⁰⁸. It is estimated that the value generated annually by using traditional knowledge in the form of genetic resources is around US\$800 billion. Besides that, the importance of protecting traditional knowledge is because much traditional knowledge has been used by many researchers as the starting point for their research to obtain patents.

Traditional knowledge has been incorporated into the Convention on Biological Diversity (CBD)^{109,110,111,112,113}, which has been ratified by 170 countries (Wan Talaat et al., 2012c), including Indonesia thru Law No. 5/1994. Although ratified by Indonesia, the country has not made many efforts regarding traditional knowledge^{114,115}. Article 8(j) of the CBD states that "each Contracting Party shall respect, preserve and maintain traditional knowledge; its use shall require the prior informed consent of and involve the holders of such knowledge; and

shall support the fair and equitable sharing of benefits arising from its use^{116,117,118,119}." However, to date, there has been no international agreement on how these provisions should be implemented, neither in the TRIPS agreement nor in any other agreement.

According to Agus Sardjono, the government is more focused on prioritizing the formation of conventional IPR laws as a consequence of ratifying the TRIPs agreement (WTO), such as:

1. Law No. 30/2000 concerning Trade Secrets; Law No. 31/2000 concerning Industrial Designs; Law No. 32/2000 concerning Integrated Circuit Layout Designs;
2. Law No. 14/2001 concerning Patents;
3. Law No. 15/2001 concerning Trademarks; Law No. 19/2002 concerning Copyright;
4. Presidential Decree No. 15/1997 concerning the ratification of the Paris Convention;
5. Presidential Decree No. 16/1997 concerning the ratification of the PCT;
6. Presidential Decree No. 17/1997 concerning the ratification of the Trademark Law Treaty;

¹⁰⁸ Ibid.

¹⁰⁹ Z M Nomani and M Rauf, "Legal Policy for Bio-Propecting of Natural Resources in India," *Indian Journal of Environmental Protection* 39, no. 11 (2019): 1009–15.

¹¹⁰ Ibid.

¹¹¹ Henrietta Marrie, "Indigenous Sovereignty Rights: International Law and the Protection of Traditional Ecological Knowledge," in *Sovereign Subjects* (Routledge, 2020), 47–62, doi:10.4324/9781003117353-5.

¹¹² Tasnim Jahan and Shashikant Saurav, "Homogenizing Traditional Knowledge and Biodiversity Conservation," in *Revaluation and Preservation of Indigenous Knowledge Systems in Modern Society* (IGI Global, 2025), 447–64, doi:10.4018/979-8-3693-7964-6.ch022.

¹¹³ Zhang Yuanyuan, "China's Strategy for Incorporating Traditional Knowledge Associated with Biodiversity into International Multi-Lateral Agreements," *Biodiversity Science* 27, no. 7 (2019): 708–15, doi:10.17520/biods.2019073.

¹¹⁴ Christina Nitha Setyaningati et al., "The Responsibility of Indonesia for Deforestation Based On United Nations Convention On Biological Diversity,"

Jurnal Hukum Novelty 10, no. 1 (February 28, 2019): 74, doi:10.26555/novelty.v10i1.a13471.

¹¹⁵ Reh Bungana Beru Perangin-angin, Ramsul Nababan, and Parlaungan G. Siahaan, "Perlindungan Pengetahuan Tradisional Sebagai Hak Konstitusional Di Indonesia," *Jurnal Konstitusi* 17, no. 1 (May 6, 2020): 178, doi:10.31078/jk1718.

¹¹⁶ Tri Fenny Widayanti et al., "Legal Protection Concerning Marine Environment and Coastal Areas in Indonesia Based on the Convention on Biological Diversity (CBD)," *IOP Conference Series: Earth and Environmental Science* 1119, no. 1 (December 1, 2022): 012006, doi:10.1088/1755-1315/1119/1/012006.

¹¹⁷ Ulil Afwa and Agus Mardianto, "Protection of Traditional Knowledge in the Advance of Technological Era of Intellectual Property Rights in Indonesia," 2022, 030002, doi:10.1063/5.0104160.

¹¹⁸ Masrur et al., "Biopiracy and the Regulatory Framework for Material Transfer Agreements in Indonesia."

¹¹⁹ Anti Mayastuti and Hari Purwadi, "Protection of Indonesia's Biodiversity against Biopiracy through Adoption of Traditional Knowledge Digital Library," *IOP Conference Series: Earth and Environmental Science* 1438, no. 1 (January 1, 2025): 012066, doi:10.1088/1755-1315/1438/1/012066.

7. Presidential Decree No. 18/1997 concerning the Berne Convention and Presidential Decree No. 19/1997 concerning the WIPO Copyright Treaty.

The question now is whether the existing legal framework in the field of conventional IPR can serve as a protective umbrella for traditional medicines that fall under the traditional IPR regime? Mr. Hawin addressed the above issues by presenting three models of approach, namely: First, the public domain position. This model's approach states that traditional knowledge should be common property enjoyed by all the world's inhabitants. Therefore, its adherents oppose efforts to commercialize and trade traditional knowledge as a commodity. Generally, they support traditional social structures to maintain and control the use of traditional knowledge. Therefore, they generally disagree with the creation of IPR for traditional knowledge because IPR prioritizes the protection of individual rights, making it a means that would damage traditional institutions and structures within traditional knowledge.

Second, the appropriation position approach model. This approach fully supports the exclusive ownership of traditional knowledge by an institution or body, allowing them to determine its commercial and other uses. Its adherents believe that since traditional knowledge is part of IPR, it can be commodified and commercially traded in the market. Therefore, its adherents believe that the IPR regime is crucial in determining how and who is entitled to utilize traditional knowledge. With such an approach, it leads to the ownership of traditional knowledge by multinational companies, which is generally claimed and located in developed countries. Third, the moral rights position approach model. This last model essentially states that traditional knowledge must be protected and given full ownership rights, thus preventing or

opposing claims from beneficiaries or users of traditional knowledge, including multinational corporations. In their opinion, traditional knowledge can be commercialized, but only by those who are entitled to the traditional knowledge. According to M. Hawin, in this case, intellectual property law can be used to determine who is entitled to own and utilize this traditional knowledge.

From those models, if we look at the existing IPR Law, there are several possibilities for protecting traditional knowledge in the form of traditional medicine. Those possibilities are: First, protection under Law No. 15/2001 in conjunction with Law No. 20 of 2016 concerning Trademarks, specifically regarding Geographical Indications. Article 56, paragraphs 1 and 2 of the law allows for the protection of traditional medicines in the form of herbal remedies, herbal preparations from plants, and so on. The system within this geographical indication strongly supports the protection of traditional medicine, considering its acquisition of rights thru registration.

The registration system is considered quite appropriate as an alternative for the protection provided to traditional communities and their rights to traditional knowledge. The registration/recording of traditional knowledge is a collection of official documentation that describes traditional knowledge. There are two ways to register traditional knowledge^{120,121}: either thru a local recording system (within a single community) or thru an external recording system (outside the community itself).

With a local recording system, the community can collectively decide which traditional knowledge will be included in the recording and which traditional knowledge will be shared and/or disclosed to people outside the community. External recording systems, on the other hand, are done outside the community, often at the national or

¹²⁰ K. G. Saxena and K. S. Rao, "Traditional Knowledge Systems and Sustainable Development," in *Traditional Ecological Knowledge of Resource Management in Asia* (Cham: Springer International Publishing, 2022), 15–25, doi:10.1007/978-3-031-16840-6_2.

¹²¹ Romesh Kumar Salgotra et al., "Traditional Knowledge: A Therapeutic Potential in the Scenario of Climate Change for Sustainable Development," *Development* 61, nos. 1–4 (December 8, 2018): 140–48, doi:10.1057/s41301-018-0191-4.

international level, and can be carried out by governments, NGOs, museums, or libraries. This kind of recording can be a collection of traditional knowledge that is specific to a particular community, or it can also be a collection of traditional knowledge from several specific communities.

Second, protection under Law No. 19/2002 on Copyright, in conjunction with Law No. 28 of 2014, specifically the provisions regarding the protection of folklore as regulated in Article 10 paragraph (2), which states, "The state holds copyright over folklore and the cultural heritage of the people that is common property, such as stories, legends, folktales, legends, chronicles, songs, handicrafts, dances, calligraphy, and other works of art." According to M. Hawin, with the state being designated as the copyright holder for these traditional works, the state will protect them from foreign use that is detrimental to the country¹²².

Is it possible for the protection of traditional medicine, which is part of traditional knowledge, to be protected by the Patent Law? If we look at the patent requirements, particularly those concerning novelty, then traditional medicine cannot be granted patent protection, considering its lack of novelty. This is because traditional medicines in the form of herbal remedies and herbal medicines were already widely known to the public. In addition, the granting of patents for traditional medicines is constrained by the provisions of Article 7 letter b and Article 7 letter d of the Patent Law. Both of these relate to exceptions for the granting of patents.

It also cannot meet the requirement of an inventive step, which stipulates that the invention must be previously unknown from a technological standpoint. Traditional medicine, such as herbs and the like, is the inheritance of traditional knowledge passed down from generation to generation, making it difficult to meet the inventive step requirement. The characteristics of traditional medicine are different from those of patented

drugs typically found thru research and development processes, which are based on specific scientific methods, such as pharmacology, as a field of study in medicine. Regarding the final requirement for an invention to be granted a patent, the invention must be industrially applicable (useful/industrially applicable), meaning the discovery can be produced using various types of industries. This means the claims mentioned in the patent document can be carried out by following the instructions described in the patent specification. This means that the technological invention must be disclosed so that it can be implemented by anyone with technical knowledge in the relevant field. If the inventor cannot explain how the invention can be applied in the production/industrial process, then the invention cannot be granted patent protection. This provision is a reward for prospective patent holders, requiring them to be able to teach how to use the invention in question. In this way, technological development will increase because each party is given the opportunity to learn about such inventions, which can ultimately lead to the discovery of superior new technologies as a result of further research on the inventions in question. Things like that might not be met by traditional medicine, such as herbal remedies carried on a pole, because their preparation is based on inherited traditional knowledge.

Generally, traditional knowledge about traditional medicine has become common property, although not all members of society are aware of and have the ability to treat with the relevant knowledge. This aligns with the traditional meaning, which is that knowledge is passed down thru generations, based on the traditions of the supporting community.

Based on this, traditional medicine protection has not yet been granted with a patent, as it does not meet the requirements of a new invention, contain an inventive step, and be applicable in the industrial field. These three requirements are cumulative, meaning all three must be met. If even one of these requirements is not met, a patent cannot be

¹²² Hawin, "Determining an Appropriate Patent Working Requirement for Indonesia."

granted. Therefore, the government needs to make breakthroughs and take concrete steps to protect traditional medicine with a law. This can be done by amending the law or, if that's not possible, by creating a separate law that regulates the protection of traditional knowledge, which includes traditional medicine. The protection of traditional medicine as part of traditional knowledge under the law is still hampered by several factors, considering its nature, which does not meet the requirements for patenting. Therefore, in the future, serious consideration should be given to protection in a separate law, distinct from the existing IPR law, because the current IPR law has not been able to provide maximum protection, while the economic potential it contains is of great value.

Legal Protection Toward the Formation of Effective Laws

In the context of law enforcement for traditional knowledge infractions, protection may be achieved via two primary mechanisms:^{123,124,125,126,127} legal and non-legal measures. Legal protection encompasses the preserving of traditional knowledge via the implementation of legal frameworks, including intellectual property rights legislation, rules pertaining to genetic resources, contractual agreements, and customary law. Non-legal protection may be attained by non-binding systems for safeguarding traditional knowledge, such as codes of behavior established by international organizations, governments, non-governmental organizations, professional associations, and the business sector. Furthermore, it may be accomplished via the aggregation of discoveries, registration, and

databases of conventional knowledge. The integration and synergy of these two safeguards will provide beneficial and effective outcomes for anticipating and addressing the enforcement of conventional knowledge violation legislation. The integration of the first and second processes will provide robust and complementary law enforcement efficacy.

Each region must develop a comprehensive, thorough, and quantifiable database about the potential of traditional knowledge under its jurisdiction, based on a full and accurate dataset. This may be achieved by establishing a credible and competent task force, which entails assigning substantial tasks and obligations accompanied by appropriate remuneration. An option is to provide supplementary responsibilities to relevant organizations or institutions in the domain of traditional knowledge, including the education and cultural agency, archaeology, and others. Currently, it is undeniable that certain developed nations, including the United Kingdom, the United States, France, and Japan, exhibit resistance or rejection towards the approval and signing of the proposed Draft United Nations Declaration on the Rights of Indigenous Peoples. This refusal signifies that industrialized nations are reluctant to acknowledge the collective rights of communities concerning traditional knowledge, including traditional medicine (*jamu*).

The Philippines is the nation that has established legal safeguards for traditional knowledge, as articulated in Section 17,

¹²³ P Andanda, "Striking a Balance between Intellectual Property Protection of Traditional Knowledge, Cultural Preservation and Access to Knowledge," *Journal of Intellectual Property Rights* 17, no. 6 (2012): 547–58.

¹²⁴ Sabrina Bath and Sachchidanand Prasad, "Legal Protection of Traditional Knowledge and Traditional Cultural Expressions under Copyright Laws," *Indian Journal of Traditional Knowledge*, April 23, 2025, doi:10.56042/ijtk.v24i4.5061.

¹²⁵ S F Espinosa, "Patent Law and the Protection of Traditional Knowledge," *NTUT Journal of Intellectual*

Property Law and Management 1, no. 2 (2012): 159–74.

¹²⁶ T Dagne, "The Protection of Traditional Knowledge in the Knowledge Economy: Cross-Cutting Challenges in International Intellectual Property Law," *International Community Law Review* 14, no. 2 (2012): 137–78, doi:10.1163/187197312X633478.

¹²⁷ Ulia Popova-Gosart, "Traditional Knowledge and Intellectual Property," in *Encyclopedia of Information Ethics and Security* (IGI Global, 2007), 645–54, doi:10.4018/978-1-59140-987-8.ch094.

Article 14 of the Constitution^{128,129}, which states: "The state shall recognize, respect and protect the rights of the indigenous cultural communities to preserve and develop their cultures, traditions and institutions." These rights should be taken into account in the development of national programs and policies. This principle is further detailed in the Indigenous Peoples Rights Act of 1997, which states: "Indigenous cultural communities/ indigenous peoples possess the right to practice and rejuvenate their cultural traditions and customs." The state shall safeguard, uphold, and cultivate the historical, contemporary, and prospective expressions of their culture, along with the entitlement to the restitution of cultural, intellectual, religious, and spiritual property appropriated without their voluntary and prior informed consent or in contravention of their laws, traditions, and customs.

Article 1(3) of the Draft Law on Traditional Knowledge and Traditional Cultural Expressions (*RUUPTEBT*) stipulates that the use of traditional knowledge by foreigners, foreign legal entities, or Indonesian legal entities with foreign investment must occur through an access permit mechanism and a utilization agreement. The use of Traditional Cultural Expressions does not need an access authorization or a use agreement.

Traditional knowledge in the *RUUPTEBT* pertains to intellectual creations in the domains of knowledge and technology that include features of traditional heritage, generated, cultivated, and preserved by its guardians. Traditional cultural expressions denote intellectual creations in the arts, including literary works that include features emblematic of traditional heritage, generated and cultivated by its guardians. A custodian of traditional knowledge and/or traditional cultural expressions refers to a local community or indigenous group residing in a defined territory, characterized by shared values and social cohesion, which collectively

preserves and cultivates traditional knowledge and cultural expressions.

The conservation of traditional knowledge persists as long as it is maintained by its caretakers. This indicates that as long as the custodian preserves and employs traditional knowledge and cultural expressions, they will be safeguarded by the state, and other entities will be prohibited from claiming ownership of them. Simultaneously, the protective measures primarily include the restriction and prohibition of: The use of traditional knowledge by foreigners, foreign legal entities, or Indonesian legal companies with foreign investment, without access permissions and agreements; The use of traditional knowledge and traditional cultural expressions by any individual or legal entity, regardless of nationality, that does not explicitly acknowledge the origin of the traditional knowledge and/ or traditional cultural expressions and their custodians, who are the source and proprietors of such traditional knowledge and cultural expressions; The improper use of traditional knowledge and cultural expressions by any individual or legal entity, whether domestic or foreign, that misrepresents the relevant community or causes feelings of offense, humiliation, disgrace, or defamation among its members.

4. Conclusion

The legal protection for herbal medicine as traditional knowledge is currently inadequate. Governmental political will is essential for urgent action on this matter. The restrictions that may be established might be confined to regional stipulations. Each area has special local legislation that regulate the preservation of herbal medicines, including traditional Javanese medicine (*jamu*), unique remedies from Kalimantan, distinctive remedies from Madura, and *jamu gendong* in Java, among others. Certainly, these regional legislation fall within the jurisdiction of each distinct area. At

¹²⁸ Cathal Doyle, "The Philippines Indigenous Peoples Rights Act and ILO Convention 169 on Tribal and Indigenous Peoples: Exploring Synergies for Rights Realisation," *The International Journal of Human*

Rights 24, nos. 2–3 (February 7, 2020): 170–90, doi:10.1080/13642987.2019.1679120.

¹²⁹ Diane A Desierto, "Treaties in the Philippine Constitutional System," *ICL Journal* 16, no. 1 (March 28, 2022): 27–134, doi:10.1515/icl-2021-0035.

a more advanced level, governmental rules (PP) may be established that align with the diverse aspirations and intentions of the regions. These are proposals that the government, especially local authorities and associated agencies, might potentially adopt.

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