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Jurnal Ilmu Pemerintahan

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Exploring indigenous intellectual property rights and e-governance: a legal analysis of customary aboriginal knowhow in Arunachal Pradesh, India

Partha Sarothi Rakshit¹, Koyel Roy^{2*)}, Sarbani Bhowmik³, Saroj Singhanian⁴, Aarin Gosh⁵,
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ABSTRACT

The research study examines the legal protection of clan-based aboriginal healing processes, handicrafts, and unique creative works, which have been undermined from the ab initio. The government should shield the interests of their customary know-how under the IPR approach and community-based legal shields and documentation in the e-database. The research aims to investigate conventional aboriginal know-how practices of the Galo clan and e-governance meadow relating to the CAK issue and recommend lawful aspects. The researchers surveyed and collected information from 46 houses in Aalo town, Darka village, and Kabu village in West Siang District and Basar District in Arunachal Pradesh, the primary sources. The paper reports on findings from a study conducted in Arunachal Pradesh, India, to assess attitudes towards customary Aboriginal know-how (CAK) and its conservation. The survey demonstrates multiple views regarding the significance of safeguarding CAK through intellectual property rights (IPR) laws, traditional knowledge's role in socio-economic development, and whether e-governance can effectively help preserve CAK. In conclusion, a delicate balance must be between preserving traditional Galo practices and embracing modernity. A structured survey questionnaire collects quantitative data on attitudes, perceptions, and practices related to customary aboriginal know-how (CAK) conservation and legal protection. The questionnaire includes closed-ended questions to elicit specific responses from the informants regarding their views on safeguarding CAK, the role of intellectual property rights (IPR) laws, and the potential of e-governance in preserving CAK.

Keywords: e-governance, galo customary, aboriginal knowhow, juridical study

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INTRODUCTION

Intellectual property (IP) encompasses various legal regimes granting ownership rights in specific subjects (DiMatteo, 2020). Indigenous intellectual property includes knowledge unique to indigenous cultures and vital for community preservation (Bustani, 2018; Saraviita, 2010; Yu, 2008). However, protection mechanisms for indigenous IP remain underdeveloped, leading to potential exploitation and loss of cultural heritage (Riley, 2005). The expansion of IP laws to include new subjects, such as computer software and micro-organisms, reflects the evolving nature of intellectual property (Beckerman-Rodau, 2010). Despite this expansion, there is a lack of specific protections for traditional indigenous knowledge within existing IP frameworks, leaving indigenous communities vulnerable to exploitation.

The Galo ethnic community in Arunachal Pradesh holds valuable traditional knowledge of various practices, including handicrafts and rituals (Doye, 2015). However, there is a gap in legal frameworks for protecting customary aboriginal know-how (CAK)

within the intellectual property rights (IPRs) regime, leaving these cultural practices susceptible to misuse.

E-governance initiatives in Arunachal Pradesh aim to digitize data on cultural knowledge and facilitate e-commerce (Government of India, 2023). There is a critical need to embed protections for customary aboriginal know-how (CAK) within these systems. This integration is essential to safeguard the rights and interests of indigenous communities, such as the Galo clan. Research conducted in the West Siang and Basar districts of Arunachal Pradesh aims to delve into the legal framework for safeguarding the Galo clan's CAK under the intellectual property rights (IPR) regime. By exploring the intersection of traditional indigenous practices and contemporary IP laws, this study fills a significant void in the existing literature. It provides valuable insights into the complexities and opportunities surrounding the protection of CAK in the digital era.

Drahoš (1998) explains that intellectual property is a complex legal concept; hence, the concept of Indigenous Intellectual Property is located within this broader framework. Indigenous people's knowledge is very important and valuable in various ways since it is part of their lifestyle and, hence, their survival (Battiste & Henderson, 2000; Coates, 2004; Stikhina et al., 2023). Nonetheless, indigenous communities continue to be exploited with no protection for such intellectual property. Drahoš (1998) has noted that IP laws have changed significantly over time. The law has grown to include things like software and other subjects like microorganisms in recent years. However, there are no specific traditional knowledge-based protections within existing IP regimes despite IP laws having significantly expanded in scope over the years. Without such security measures, indigenous groups like the Galo tribe from Arunachal Pradesh may be at risk of being taken advantage of.

In Arunachal Pradesh, the Galo community resides amidst beautiful landscapes with a wide range of traditional knowledge spanning various areas such as handicrafts and rituals (Doye, 2015). Considering the immense cultural significance of these ancestral teachings, the absence of legislation to safeguard customary aboriginal know-how within intellectual property rights frameworks is glaring. This regulatory gap exposes Galo's cultural practices to potential abuse or exploitation by outsiders. However, there is a discernible shift towards e-governance initiatives in Arunachal Pradesh, marked by efforts to digitize cultural knowledge and promote indigenous products through e-commerce platforms (Government of India, 2023). Nevertheless, any implementation must proceed cautiously, especially if it aims to integrate robust protections for customary aboriginal know-how (CAK) into these initiatives through governance systems that currently serve as only a preliminary step toward such goals. Failure to do so could perpetuate the exploitation of cultural heritage and exacerbate marginalization among the affected groups.

They were launched last year, especially in West Siang, where its activities extend up to Basar, in order to find out what, if anything, the existing law says about how to protect the Galo clan CAK under the IPR regime (Government of India, 2023). Consequently, as can be seen from this analysis, such studies clearly provide important insights into the digital-era challenges and opportunities for protecting CAK by analyzing how traditional indigenous practices interact with modern IP laws. This is because traditional communal ownership principles are at odds with notions of individualism associated with intellectual property. They do not believe in authorship and ownership. This makes adaptation of the existing IP mechanisms necessary through careful consideration given these forms of communal ownership. Also, there are ethical issues involved in the commodification of sacred knowledge and cultural heritage when

indigenous cultural expressions become commercialized. Nevertheless, while marketing native-made products may lead them toward economic empowerment, this should not happen at the cost of eroding their culture or exploiting these people. However, striking a balance between economic considerations and cultural preservation requires an intricate interplay that prioritizes agency and autonomy among these peoples as they are citizens, too.

Furthermore, the 21st century presents both opportunities and challenges in safeguarding indigenous intellectual property. Digital technologies offer avenues for preserving and even expanding indigenous knowledge, such as through virtual museums and online databases, making cultural heritage accessible while ensuring its protection. However, digitizing traditional knowledge raises concerns about informed consent, as there is a risk of unauthorized access by external entities (Amechi, 2015; Oguamanam, 2009; Prazmowska, 2020; Ruiz et al., 2004). The urgency of protecting indigenous intellectual property in today's global landscape cannot be overstated. Hence, policymakers, scholars, and various stakeholders must collaborate to develop comprehensive legal frameworks that prioritize the rights and interests of indigenous peoples amidst the complexities of the digital age (Castro & Nielsen, 2001; Murphy & Arenas, 2010; Sakapaji et al., 2024; Von der Porten & De Loë, 2013). By fostering inclusive approaches rooted in cultural sensitivity and embracing change while honoring diverse cultures, we can uphold inclusivity and preserve our shared human culture, deeply intertwined with indigenous knowledge.

The Galo ethnic community in West Siang and Basar districts of Arunachal Pradesh possesses rich traditional knowledge and practices, including handicrafts, rituals, and herbal medicine, which are integral to their cultural identity and livelihoods. However, despite the importance of these practices, there exists a gap in the legal framework for protecting customary aboriginal know-how (CAK) within existing intellectual property rights (IPR) regimes. This gap exposes the Galo clan to the risk of exploitation and misappropriation of their cultural heritage. Additionally, while e-governance initiatives hold promise for digitizing and preserving cultural knowledge, there is a need to integrate protections for CAK within these systems. Therefore, this study seeks to address these challenges by examining the traditional practices of the Galo ethnic community, analyzing the current state of protection under IP laws, identifying gaps and challenges in safeguarding CAK, and proposing recommendations for enhancing legal and policy frameworks to ensure the equitable recognition and protection of Galo clan CAK.

Research Method

This research paper is a combination of instructive and survey methods to find out aboriginal know-how. The 46 selected informants for this study are chosen based on specific criteria that align with the research objectives and the population under investigation. These informants represent a diverse cross-section of the population to provide comprehensive insights into the research topic. The selection criteria may include factors such as age, gender, occupation, socio-economic status, and level of involvement or expertise in the subject matter.

In studying the Galo ethnic community in the West Siang and Basar districts of Arunachal Pradesh, the selection of informants encompasses various key groups within the community. These include elders, revered for their deep understanding of traditional practices and cultural heritage. Additionally, artisans and craftsmen play a crucial role in preserving and passing down cultural knowledge through their skilled

craftsmanship. Community leaders, such as village chiefs or clan heads, provide insights into the governance and decision-making processes within the community. Traditional healers offer valuable knowledge on indigenous medicinal plants and healing techniques. Youth representatives actively engaged in cultural activities contribute a fresh perspective on preserving and promoting traditional practices. Women's groups, focusing on areas like food preparation, clothing, and rituals, play a significant role in transmitting cultural knowledge across generations. Educators and scholars bring expertise in Galo culture, history, and language, enriching the understanding of the community's heritage. Lastly, government officials and policymakers provide insights into policies and initiatives related to cultural preservation, heritage management, and indigenous rights, ensuring a comprehensive approach to understanding and safeguarding the Galo community's cultural heritage.

By selecting informants from diverse backgrounds and perspectives, the study aims to capture a comprehensive understanding of the traditional practices, knowledge systems, and challenges faced by the Galo ethnic community in safeguarding their cultural heritage. Each informant contributes unique insights and experiences, enriching the research findings and recommendations.

Primary data was collected from 46 houses in Aalo town, Darka village, and Kabu village in West Siang District and Basar District in Arunachal Pradesh. Secondary information was collected from legislation, reported daily, and a literature review. The sample size was 46 respondents. Some benefits and shields of CAK are the subject matter of the IPRs, which is undermining the customary Galo clan rights in the West Siang and Basar districts in Arunachal Pradesh. Clan-based aboriginal know-how and community interest ought to be fulfilled through e-governance so as to include their industrial exposure.

Result and Discussion

Data from the survey was put through tabulation and statistical analysis. In order to summarize the data and identify patterns or trends in respondents' opinions and perceptions, descriptive statistics such as frequencies, percentages, and means were calculated.

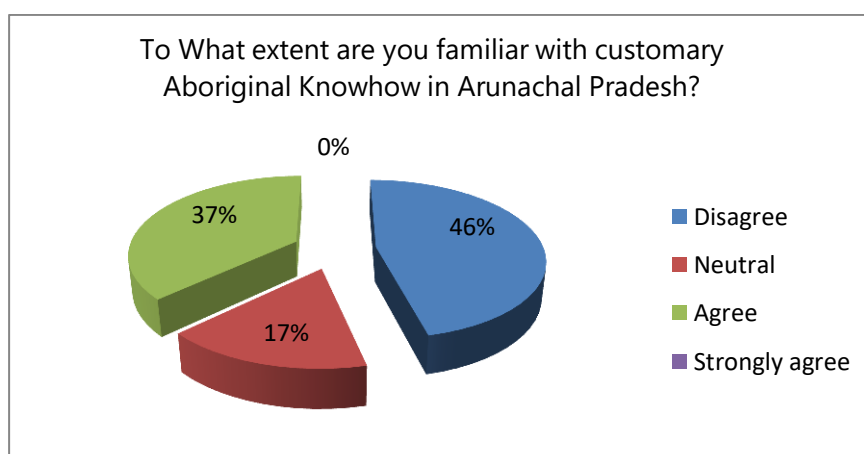


Figure 1. customary Aboriginal Knowhow in Arunachal Pradesh

Source : processed by author

In Arunachal Pradesh, some 41 of the 46 people interviewed said that traditional Aboriginal knowledge is known. However, only twenty-five of them admitted that they have a small quantity of knowledge about it. Nevertheless, the other 16 respondents took the opposing side, hence indicating differences in opinion. This was

followed by five who did not express any opinion at all. This, therefore, means that though many may know a little bit about it, there is still a wide space between the amount of knowledge they possess and what they believe they know.

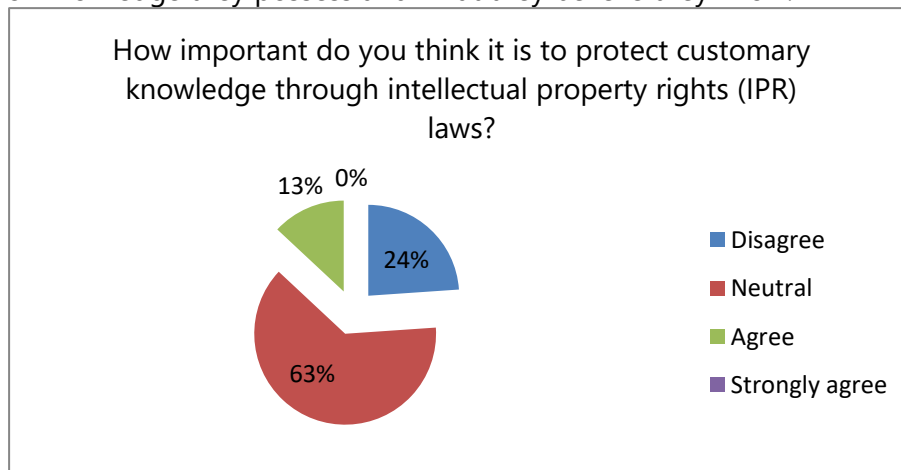


Figure 2. How important to protect customary knowledge through intellectual property rights (IPR) laws

Source : processed by author

The significance of protecting traditional knowledge through intellectual property rights laws seems uncertain to most people. Only 29 respondents had no opinion on the issue, while 11 out of them said it was not important. Of the 46 interviewees, only six agreed with this argument. No one fully backed this idea up. The answers provide different opinions on the necessity to protect traditional knowledge and intellectual property.

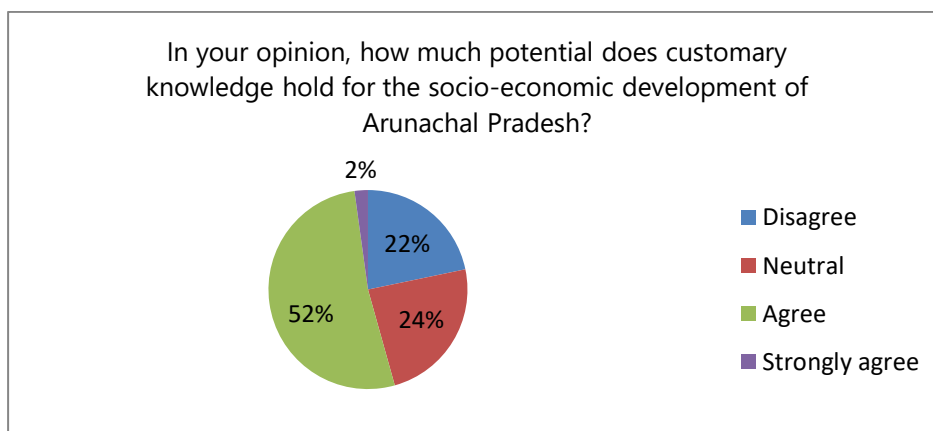


Figure 3. Potential customary knowledge hold for the socio-economic development of Arunachal Pradesh

Source : processed by author

When the people of Arunachal Pradesh were surveyed, it turned out that the opinions on whether traditional knowledge can be beneficial to the economy and society of the state are varied. From a total number of 46, 25 agree or strongly agree that through traditional knowledge, economic and social development in the area could be brought into line with international standards. It means that most respondents opine indigenous cognizance and practices as a key step toward propelling society forward and enhancing its economic performance. A big share (10 persons) does not believe or have doubt over lessons from nature's people being engines for growth. Moreover, eleven participants said nothing about this issue that could be interpreted differently; they were neutral towards it. The replies indicate

different viewpoints regarding how indigenously available information may influence regional socio-economic transformations.

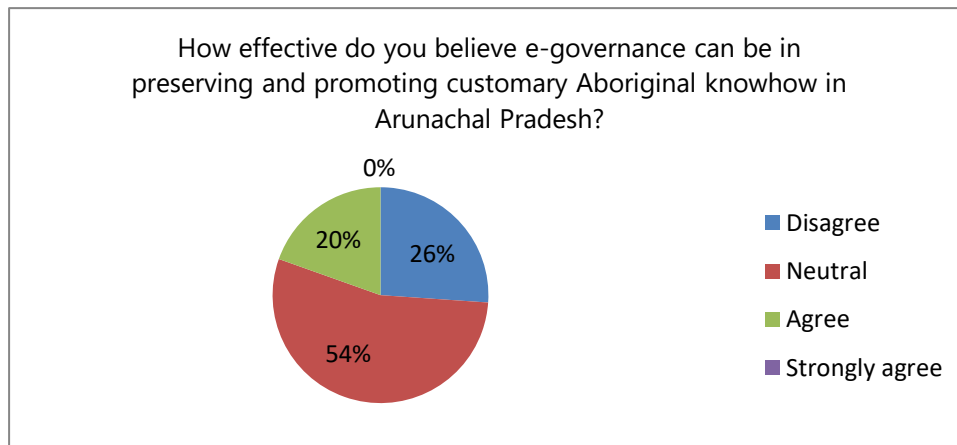


Figure 4. Effectiveness of e-governance in preserving and promoting Aboriginal traditional knowledge in Arunachal Pradesh

Source : processed by author

According to the survey results, there are divergent views on whether e-governance is an important tool for safekeeping and the promotion of traditional Aboriginal knowledge in Arunachal Pradesh. Among them, 25 respondents, constituting a bit more than half (46), neither strongly disagree nor agree with this point. Conversely, 12 individuals cast doubt on the ability of e-governance to defend and promote traditional knowledge, pointing out its incapability or preventing questions about digital platforms' suitability for preserving indigenous knowledge. On the contrary, nine participants had faith that electronic governance could be used as a means to help protect and promote old ways of doing things, thus showing little appreciation for the importance of digital technology. No one strongly supports this assumption; hence, e-governance may not be good enough to safeguard many traditions about aboriginal culture. All in all, these responses include both positive and negative perceptions with respect to using e-governance in keeping cultural relics intact.

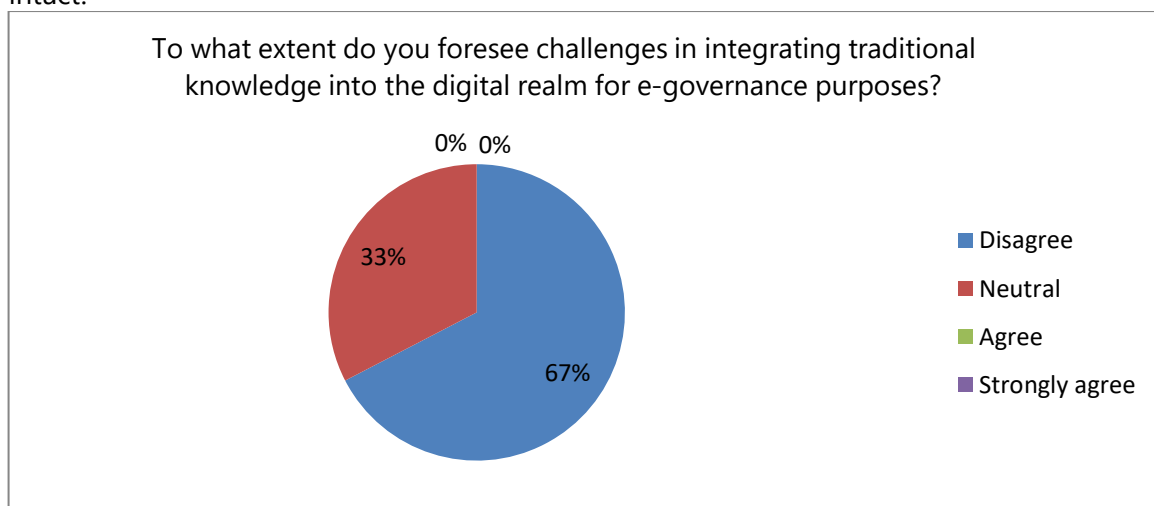


Figure 5. challenges in integrating traditional knowledge into the digital world for e-governance purposes?

Source : processed by author

In Arunachal Pradesh, respondents generally expressed openness to the idea of integrating traditional knowledge into e-governance digital platforms, as evidenced by the survey findings. However, it is noteworthy that this perspective was not shared by a significant portion of the respondents, with thirty-one out of 46 participants indicating reservations. Despite this, the prevailing sentiment among most individuals is that the process could proceed smoothly if traditional wisdom were to be utilized for digital platforms. However, there is some uncertainty among fifteen practitioners regarding potential barriers, suggesting a degree of ambiguity surrounding the matter. Notably, none of the participants strongly agree or agree that integrating traditional information into digital platforms might pose difficulties, indicating a balanced outlook among respondents. Overall, the survey results reflect a prevailing optimism among people in Arunachal Pradesh regarding the linkage of traditional knowledge with the digital world through e-governance projects, as evidenced by the responses collected during the survey exercise.

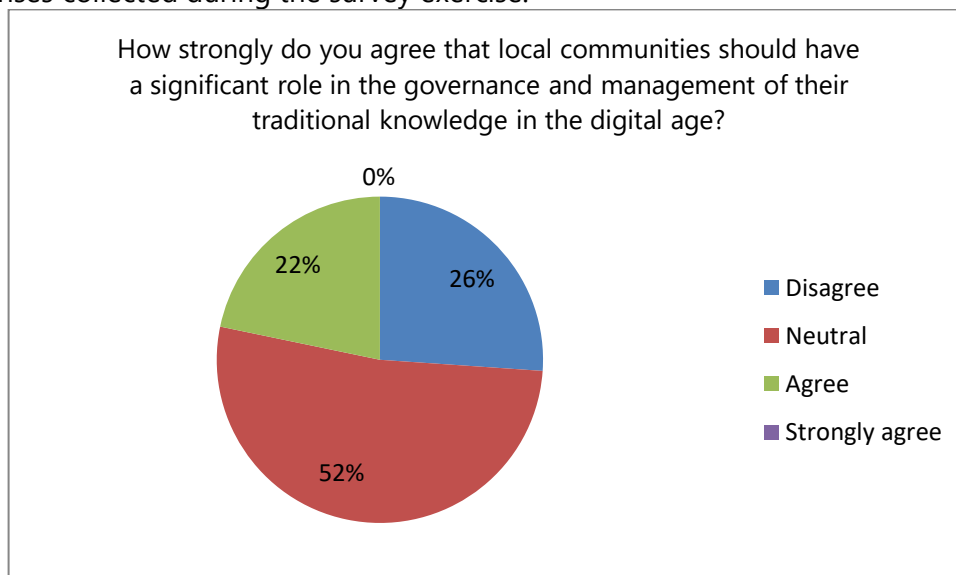


Figure 6. Local communities have an important role in the governance and management of their traditional knowledge in the digital era

Source : processed by author

The survey responses reflect a diverse range of opinions regarding the involvement of local communities in managing their indigenous knowledge in the digital age. Among the 46 respondents, it is evident that a significant portion, comprising 24 individuals, exhibit indifference towards the idea of traditional societies playing a substantial role in this domain. Another twelve respondents express skepticism or hold differing views regarding community participation in administering and controlling indigenous knowledge, indicating a reluctance to allocate significant responsibilities to local communities. However, there are ten respondents who express support for societal empowerment in preserving cultural heritages, underscoring an appreciation for the role of local communities in safeguarding their traditions. Notably, none of the respondents strongly advocate for local communities to have a major stake in preserving their traditional wisdom in the digital era, indicating a lack of consensus on the matter. Overall, the survey results highlight a spectrum of perspectives regarding the role of communities in safeguarding cultural heritage, emphasizing the complexity of the issue.

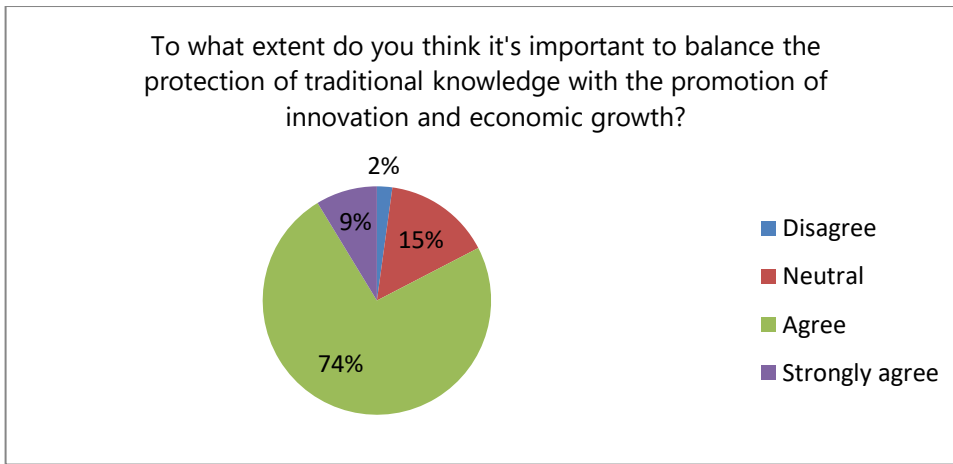


Figure 7. The importance of protecting traditional knowledge with increasing innovation and economic growth

Source : processed by author

The survey findings imply that a large number of respondents concur about the need to mix preserving traditional knowledge and encouraging innovation and development. Thirty-eight out of 46 participants agreed with this statement, while thirty-four agreed and four strongly agreed. Most of these people believe it is important to preserve their cultural heritage but should still be in line with modernity through innovation and economic progress(UNESCO, 2003). Conversely, seven more persons are unsure about the significance of achieving this balance, indicating some indecisiveness or lack of understanding on their part. At the same time, one person maintains the minority opinion, prioritizing innovation and economic growth at the expense of traditional knowledge conservation. All told, there was a broad consensus in all the responses regarding the necessity for balancing these two aims to ensure long-term social development and economic stability.

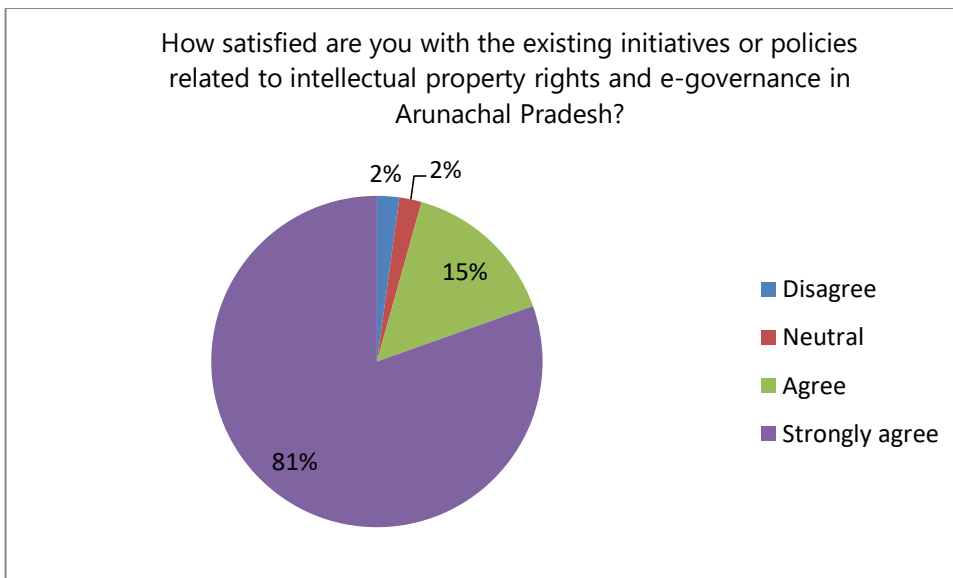


Figure 8. policies related to intellectual property rights and e-governance in Arunachal Pradesh

Source : processed by author

The survey responses have indicated that most people in Arunachal Pradesh are pleased with the current efforts or policies on intellectual property rights and e-governance. Among 46 respondents, 44 agreed or strongly agreed with this sentiment. In particular, 37 individuals completely agreed by highly appreciating what they have

now. What is more, seven other participants expressed their pleasure with the present activities, which is seen as a positive reception to the programs undergoing. However, only one respondent disagreed or was indecisive about them, which appears to imply that a few individuals might doubt their effectiveness or suitability. Overall, these answers indicate that most people in Arunachal Pradesh are satisfied with IP rights movements and e-governance initiatives.

The results of the survey have shown that there is a high degree of satisfaction among the respondents in relation to Arunachal Pradesh's current policies and initiatives on e-governance as well as intellectual property rights. 44 out of 46 participants were contented with the status quo. More specifically, this was strongly agreed upon by 37 people which shows that they were very happy about it. Besides, seven respondents appreciated the current efforts, which signifies policy acceptance. One respondent expressed ambivalence or disagreement, suggesting that only a minority seems to be unsure whether these policies are sufficient or effective. Overall, the responses show widespread satisfaction with initiatives made regarding e-government and intellectual property rights in Arunachal Pradesh.

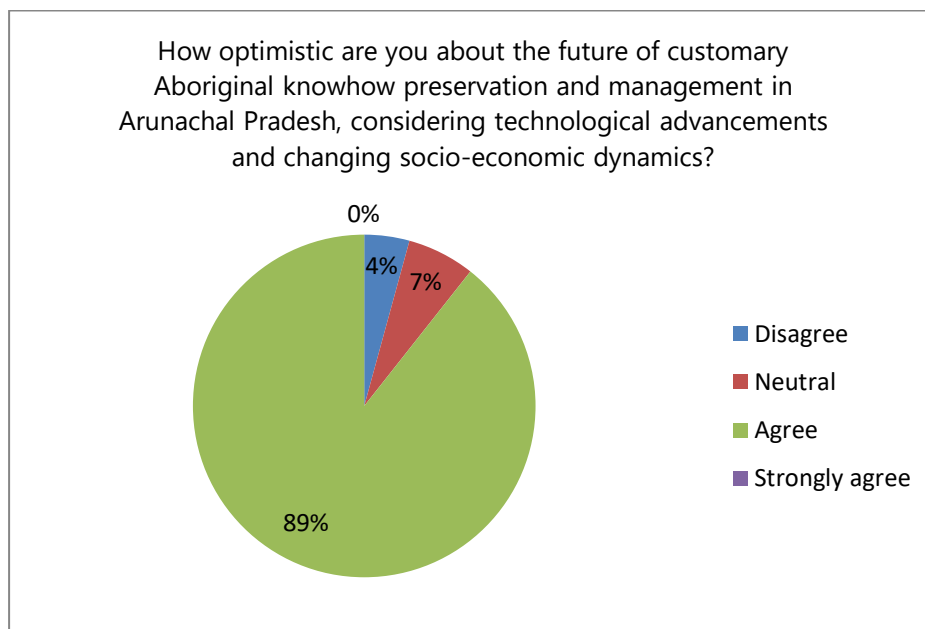


Figure 9. The future of preserving and managing Aboriginal indigenous knowledge in Arunachal Pradesh

Source : processed by author

Generally, the sentiment regarding the future of conserving and managing traditional aboriginal knowledge in Arunachal Pradesh is overwhelmingly positive. Among the 46 respondents surveyed, an impressive 42 individuals express optimism on this front. They firmly believe that indigenous knowledge can continue to be effectively conserved and managed, even amidst the backdrop of technological advancements and shifting socio-economic dynamics. Regarding this matter, three respondents remain uncertain about their stance, indicating a degree of ambiguity surrounding the issue. However, the skepticism expressed by only two individuals highlights that doubts about our capacity to protect and maintain indigenous knowledge are confined to a minority. These findings underscore the prevailing optimism among the majority of individuals from Arunachal Pradesh regarding the preservation and management of Aboriginal traditional knowledge in the years ahead.

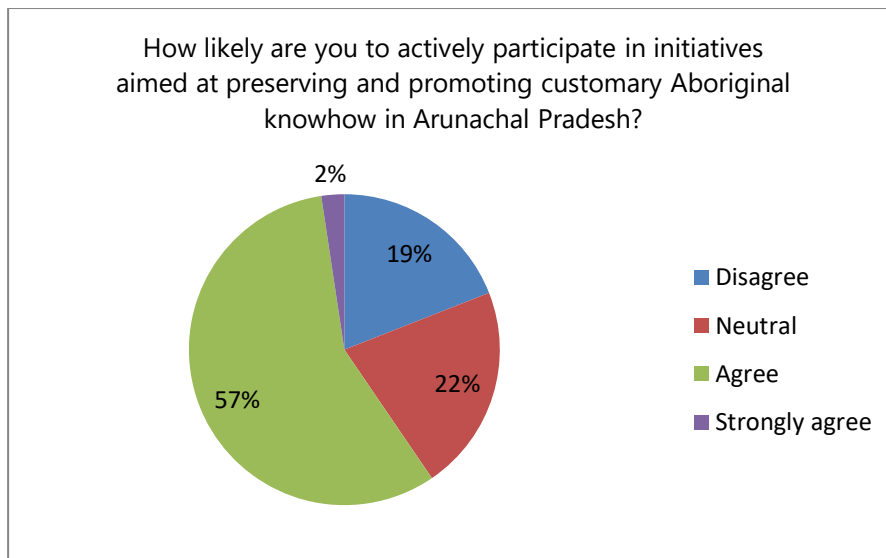


Figure 10. Active participation in initiatives aimed at preserving and promoting Aboriginal knowledge in Arunachal Pradesh

Source : processed by author

Based on the survey results, it appears that not all people in Arunachal Pradesh are willing to preserve traditional Aboriginal knowledge. From a total of 46 respondents who took part, 25 would possibly engage in these projects and show their will to help save the culture. Of them, 24 said yes, and one strongly agreed. Furthermore, nine respondents do not know, thus suggesting some hesitation or lack of complete commitment to participation. However, eight respondents disagree with their likelihood of participation, hence showing a minority perspective, which may imply uncertainty or unwillingness to participate actively in programs to preserve and promote traditional Aboriginal knowledge. Although many are interested, others could need more encouragement to throw their full weight behind these endeavors.

This research has yielded significant insights through comprehensive surveys and meticulous data analysis conducted among the Galo clan communities across various regions of Arunachal Pradesh. Several key findings emerge from the study:

Firstly, regarding familiarity with customary Aboriginal knowhow, a considerable proportion of respondents (25%) demonstrate awareness of such knowledge, reflecting a foundational understanding within the community. However, a noteworthy percentage either express disagreement (16%) or uncertainty (5%), indicating a need for increased awareness and educational interventions to address knowledge gaps. Secondly, concerning the importance of protecting traditional knowledge through Intellectual Property Rights (IPR) laws, while the majority acknowledge its significance (35%), a substantial portion remains undecided (29%) or disagrees (11%), underscoring complexities surrounding the implementation and effectiveness of IPRs in safeguarding indigenous knowledge. Thirdly, there is a recognition among a significant number of respondents (25%) regarding the potential of traditional knowledge for socio-economic development in Arunachal Pradesh.

Nevertheless, divergent views exist on this concept, with some disagreeing or expressing uncertainty, reflecting varying perceptions on the role of traditional knowledge in development. Fourthly, opinions diverge on the effectiveness of e-governance in preserving Aboriginal customary know-how, with some expressing uncertainty (25%), slight disagreement (12%), or agreement (9%). This reflects differing perspectives on the efficacy of digital platforms in preserving indigenous knowledge.

Furthermore, while almost half of the respondents (46%) anticipate no issues integrating traditional knowledge into the digital realm for e-governance, a smaller percentage expresses uncertainty (15%), suggesting varying levels of underestimation or optimism regarding the challenges involved. In terms of community involvement in knowledge governance, opinions are mixed, with a significant portion showing little importance for community involvement (24%), while a minority agree (10%) or disagree (12%), highlighting diverse views on the extent of community engagement.

Moreover, the majority of respondents (75%) advocate for balancing the protection of traditional knowledge with promoting innovation and economic development, underscoring the recognition of traditional knowledge as a valuable asset that warrants conservation amidst development efforts. Additionally, the majority express satisfaction with existing initiatives/policies concerning intellectual property rights and e-governance (88%), indicating confidence in Arunachal Pradesh's ongoing efforts. However, a few respondents express neutrality or dissatisfaction, suggesting potential areas for improvement.

Overall, the majority of respondents (84%) display optimism regarding the preservation and management of customary aboriginal know-how in Arunachal Pradesh, reflecting a positive attitude towards heritage preservation despite technological advancements and changing socio-economic patterns. Additionally, a significant proportion of respondents (73%) indicate a readiness to actively participate in initiatives aimed at preserving and promoting customary Aboriginal know-how, although varying degrees of community involvement are observed.

Conventional Aboriginal Knowhow Vis-À-Vis IPR Regime

An inalienable intangible interest inevitability in the subjects of the municipal and international legal doctrine authenticated right of property which are mainly on the basis of scientific, creative or innovative lantern the areas of artistic, literary, folk, original track, painting, technology, dance, corporate goodwill, logo, trademark, are initially protected under the subject and object of the IPRs legal provisions such as patent, copyright, trademark, design, and later on in wider notion its scope extended on geographical indications (GI), CAK, and aboriginal Currie (2008) original inhabitant understanding. An aboriginal law/ native law deals with a body of traditional customary legal provisions that are applicable to a specific group of people in a certain place for a long time.

The law of legitimate customary knowhow deals with aboriginal ideas and practices, which ought to be time immemorial knowhow; the ground norms are mainly inhabited by the same group of people settled for a long time and used numerous natural surroundings. The term customary aboriginal know-how is not defined in the common law system; it is characteristically mentioned that group of people who have resided for a long time with a specific culture and habitual knowledge due to isolation from the advanced society (Ogwezzy, 2012). IPR rules such as copyright, trademark, patent, design, and other lawful rights are the first and foremost indicative seek to uphold legalized customary dialect, information, and know-how with aboriginal works or traditional aspects (Ogwezzy, 2012).

The UNO, of which WIPO is part of the UN outfit, asserts that safeguarding TIK in its own cultural and aboriginal skillful rights with innovative handicrafts and healing processes is long-established (Torsen & Anderson, 2010). However, with the concurrence of the WTO and TRIPS, some correlated problems amid the TIK and IP

have been raised in terms of both international politico-legal systems and domestic legal descriptions (Gurry, 2017).

The protection of CK under the IPR legal notions has contributed to havoc in lawful debates/ criticism about the jurisdiction of the subject of IPR. However, CAK is mainly based on natural innovative skills and nature-based knowledge, undrafted linguistics, folk songs (original track), drawing, etc., which hold generation to generation with the finest practice. On the other side, IP deals with actual innovative acts in any lawful objects and subject which is sheltered in the legal ownership notion from side to side its copyright, patent, trademark, and design; in this legal aspect CAK with innovative skill, art, original literary work, ancient herbal medicine and aboriginal cultural is the subject matter of IP Rights.

Aboriginal Knowhow and IPR: Indian Legal Context

The Indian Constitution in Article 246 (1) confers on the Parliament an exclusive right to make legal provisions to any matter enumerated in the Union List I (List I in the Seven Schedule). The phraseology of this article's various clauses is to secure the notion of Union supremacy (Ins. By the Constitution). Further, the Central makes any legislation for the whole country in Schedule VII. Under the Union List I, entry 49 confers patents, inventions and designs, copyrights, trademarks, and merchandise marks.

Therefore, IPR-related acts were enacted as per List I. The entry 51 u/the Union List can be read in the context of Art. 301 which envisages free flow of goods across the state border. Regarding interest in trade and commerce, to promote exports and help in building goodwill for the country in the foreign market. The Central Government in the subjects of TIK and economic developments in relation to trade matters such as traditional handicrafts, dress, foods, and herbal medicine may be exported with proper legal protection or maybe safeguarded under the IPR for the interest of the indigenous people. The right to IP is now painstaking to be a legal privilege and an individual right. The UDHR adopted in the UNGAR states that no one shall be arbitrarily deprived of their property (The Universal Declaration of Human Rights 1948, art. 17).

The state of Arunachal Pradesh is now under the fifth schedule u/Art. 244(1) of the Constitution. These are treated differently from the other parts of the country due to the pattern of society; they are inhabited by traditional indigenous people who are somewhat backward socially and economically, and unusual efforts ought to be made to improve their situation. Therefore, the central government has somewhat greater responsibility for these areas. Article 371F states that the governor of Arunachal Pradesh has been entrusted with some special responsibility with respect to law and order in the state.

Aboriginal Practice by the Galo Tribes *Vis-A-Vis* IPR and Wipo

In Northeast India, the bio-enriching CAK started in the 1960s. Under the bio-intellectual concept, CAK are out-looked as natural, societal, and rational beings in relation to the milieu. As a result of reallocating from ethnic to bio-enriching looms, diverse bio-enriching premises have materialized (Khongsdier & Approach, 2007). In Arunachal Pradesh, about 70 percent of the clans depend on their conventional crop growing, and variable agriculture is a universal tradition. CAK and aboriginal information structures are vibrant and frequently prejudiced by internal vision, testing, and contact with exterior structures (Khongsdier & Approach, 2007). The community arrangement of the *Galo* clan is an inimitable means of consortium and grading citizens to carry out various societal activities for widespread subsistence.

The Traditional Gale Dress for Women In Relation to IP

The *Galo* tribal women primarily wear the oldest traditional dress called 'Gale'. It is common for all *Galo* tribal women in the District of West Siang and other parts of the State. Every female member makes it out of the family in the district. This unique and aboriginal design was normally inherited from time immemorial as mentioned by the individuals in Kabu and Darka Village, Aalo town in West Sing (the study composed information in Kabu and Darka villages and visited 300 residences for examination of handmade *Gale*; also around 90 percent of *Galo* women have to habit wear 'gale' in every day; about 70 percent women said that they were preparing their own handmade *Gale* in their houses). It is unique, handmade, and long-lasting. This *gale* outfit is dressed mainly in the lower portion of the body up to the toe. Mostly it is eight to twelve feet in length and four feet in height. Making a *gale* dress takes around ten to fifteen days on average, depending on the creative design and color. *Galo* women wear colorful *gales* with uncommon artistic work and design almost every day. Two breadth lines with different color shades are added; this is an unavoidable trend. *Gale* differs from the Assam '*mecha*' outfit and design. This is a customary aboriginal skill based on the *Galo* ethnic for a long period. In general, *a gale is made in different dimensional colors* with uncommon designs for sale in the local market/ or itinerant selling is practiced by the *Galo* women.

Under the IPR regime, original work related to design or copyright ought to be protected from pirated work. This research has highlighted that it is high time to consider safeguarding AK under the IPR or community legal defense with trading facilities by the central or state governments in the interest of the indigenous *Galo* clan and other clan communities. As explained in cl, an original artistic traditional handmade *gale* ought to be treated as distinctive artistic work. (c) of segment 2 of the Act of Copyright, 1957 (Act No. 14 of 1957) but does not include any trademark as defined in clause (v) of sub-segment (1) of Segment 2 of the TMM Act, 1958 or property mark as mentioned in segment 479 of the IPC, (Act No. 45 of 1860) in *B. Chawla and Sons v. Bright Auto Industries*, the court said that there be only slight variations in the products existing, a little addition or change in shape which is a well-recognised shape of another product that exists in the market cannot make it as a new product or original design; and the canon of a modicum of creativity for determining originality in a copyrighted work (Feist Publications, 1999). The court has applied a test of this doctrine for determining originality in copyrightable work (*University of London Press Ltd. v. University Tutorial Press Ltd.*, 1916). The Apex Court has brought out that meager bootlegging and editing of the rulings would not quantify the copyright shield as it just engrosses effort (*Eastern Book Company And Others v. DB Modok and Another*, Appeal (Civil) 6472 of 2004). Therefore, the scope of lawful protection for unique *gales* ought to be under the IPR regime.

Galo Cane Hat Vis-À-Vis Copyright and E-Governance

The traditional *Galo* know-how about aboriginal handicraft items such as a 'Galo cane hat' is purely an aboriginal skill to make a beautiful boat-shaped hat for its unique design and durability. It has been a part of the *Galo* clan community for a long time, and they used it for fashion purposes (mainly for men's fashion purposes and social dignity) and protected direct sunlight during summer and rainy seasons. The researchers collected information from Aalo town, Kabu and Darka villages, and Basar town and met several males (400) aged between 18 and 80 years. The *Galo* family members informed us that it symbolizes male identity. The usages of cane-hat mainly

include all customary rituals, attending birthday or marriage ceremonies, social gatherings, and community meetings in a village dere (Dere is a place of meeting in every community or village and town in the District of West Siang). The *Galo* cane may be protected under the IPR regime under the Act of Designs, 2000 (Act No. 16 of 2000), or community legal protection and e-database through e-governance. The Court examined that registration of work is not compulsory nor is a condition precedent for maintaining a suit for damages for infringement of copyright (Masrani, 2008)

The government of Arunachal Pradesh has MoUs with six states of India relating to e-marketplace facilities for local-to-state vendors/ dealers/ producers on various clan-based items with paperless and digital transaction opportunities, which is a good step for initial e-governance startups and local-to-cross-state marketing for the clan communities.

Usage of Oin Leaves In Relation To Tk: Natural Healing and E-Governance

In the *Galo* ethnic community, for a long time, they have used 'oin leaves' as an herbal medicine to control high Bp (It is the force of your blood pushing against the walls of your arteries) naturopathy (Bhuyan, 2015). Oin plants (*Galo* aboriginal name; its botanical name is *Clerodendrum glandulosum Lindl, Verbenaceae*) are mainly wild plants, but *Galo* clan used as vegetables and medicinal purposes; it is commonly available in all local bazaars in the District of West Siang and Basar. This plant is gathered from the hilly forest mainly by the *Galo* women. It is devoured in the daily food locally called 'shag' (Gogoi & Sharma, 2022).

Oin leaves are eventually effective for health purposes; they believe it acts as a balancing Bp level if it is intake in daily lunch/ or dinner, but those with low Bp should not eat regularly. These aboriginal knowhows have not been legally protected to date. But for better knowhow more scientific investigation is required to treat herbal medicine and to protect under the Patent Act (Ratan et al., 2016) carried out investigative research amid this tribe and found that mainly of *oin*, *oyik*, *taka* leaves, etc., these accepted grown plant genus have a towering reasonable price in the confined market and additionally to complementary nutritional property for the less advantageous section of the aboriginal community in the district.

The State has launched e-commerce for the marketing of inside and outside trade practices, which includes local products and nature-based items; currently, about forty thousand items with one hundred fifty types of items and signing of trade facility are obtainable on GeM POC portal. Such e-governance aspects ought to be accumulated by the aboriginal know-how. Also, the state should look after the interest of the clan-based marketable items, i.e., ought to include natural medicinal products and aboriginal know-how.

Aboriginal Mopin Folk Lyrics, Song, Dance and Ipr

The Mopin festival holds a central place in the cultural beliefs and rituals of the *Galo* clan, akin to the significance of Pongal and Bihu in Assam. For the *Galo* community, Mopin transcends being merely a cultural event; it embodies their identity, almost synonymous with the *Galo* people themselves. During the Mopin festivities, original folk songs are sung, and traditional practices are observed, enriching the celebration. Among the highlights of the Mopin ritual are three main folk songs that are chanted, each adding depth and meaning to the occasion. One of the most distinctive aspects of Mopin is the Mopin Poopwr Poonu, a term unique to the *Galo* culture, which involves a blend of indigenous dance and ritual. This dance form, characterized by rhythmic movements, ritualistic lyrics, and synchronized group

performances by both Galo males and females, adds to the vibrancy and communal spirit of the celebration, witnessed by members of the Galo community and other spectators alike (Padu, 2010).

The *Mopin Songs (folk)* tune an original track sound in a conventional practice in the Galo Tribes. The subject of copyright is very attractive in upholding the actual folks, and the rhythmic footsteps during Mopin are the object of IPR. However, it has safeguards in the community rights, and it is the actual time to shield the rights and protect the unique tribal culture for the advancement in the State of Arunachal Pradesh.

The WIPO in the year of 1996 Performance and Programme Treaty (WPPT) has worked on two types of beneficiaries, mainly in the digital era, such as performers, i.e., actors, singers, musicians, and producers of phonograms, i.e., persons/ legal identities that take the initiative and have responsibilities for the fixation of sounds. The WPPT grants financial rights in their performances 'fixed in phonograms, which are concerned with the right of reproduction, distribution, rental, and making available. As to restraints, u/Article 16 of the WPPT integrates the alleged three-step investigation to settle restraints and exemptions, as afforded in Article 9(2) of the Berne Convention (WIPO,1979), to extend its application to all rights. The term of protection must be at least fifty years.

Conclusion

The study was conducted in Arunachal Pradesh's Galo clan communities, showing the need to protect and preserve their indigenous customary practices through legal regimes such as Traditional Knowledge (TK), Intellectual Property Rights (IPR), and Geographical Indication (GI). The research shows a strong tendency among the Galo to observe authentic customs that are considered important, including the Gale dress, Galo cane hat, Poka drink, and Oin leaves.

Traditional knowledge for Aboriginal communities includes more than what is being protected by the present intellectual property law and cases, including inventions and paintings. This is the reflection of the entire human soul as well as the basis for economic, social, and spiritual growth. Arunachal Pradesh aboriginal people have been custodians of an enormous wealth of information, knowledge, and resources. The worthiness of this knowledge has only recently started dawning on people. For traditional Aboriginal knowledge to be saved, Aborigines and their respective communities must join hands in working out possibilities within existing Intellectual Property systems and developing new methods or laws suitable for preserving such valuable Aboriginal traditions. This paper has initially reviewed contemporary issues surrounding intellectual property rights, traditional knowledge, and indigenous peoples.

Further research should focus elsewhere on other ways to protect traditional knowledge while presenting viewpoints from Aboriginal communities. The hardest part about this future research will be how Aboriginal approaches to protecting knowledge can comply with IP laws. Additional legislation or alternative approaches, such as educating non-Aboriginal individuals and organizations about indigenous knowledge, may be revealed by this exploration. The international support for the protection of indigenous knowledge is growing. Several countries and international fora, like the Convention on Biological Diversity and the World Intellectual Property Organisation, are considering how existing IP statutes and other forms of protection could be used for safeguarding traditional knowledge (World Intellectual Property Organization 1999).

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