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Notion of 'Ownership' in IP: Protection of Traditional Ecological Knowledge *vis-a-vis* Protection of T K and Cultural Expressions Act, 2016 of Kenya

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The existing intellectual property (IP) regime is, by and large, inapt and inadequate for the protection of Traditional Ecological Knowledge (TEK). One of the reasons behind the IP regimes inappropriateness in protecting TEK, is its anchorage in notions of 'ownership'. Thus, there is need to examine the notion of ownership in protecting TEK. This article articulates the challenges that are bound to arise in Kenya by applying the concept of 'ownership' to TEK protection. An extensive review of literature on TEK and IP is done before an analysis of the Protection of Traditional Knowledge and Cultural Expressions Act of 2016 of Kenya is conducted to illustrate the incongruences, complexities and contradictions that ensue with the usage of the concept of ownership. The article finds that since TEK is holistic, and TEK holders are merely custodians on behalf of past, present and future generations, customary law and traditional governance structures are more suitable in protecting those custodial rights rather than vesting ownership rights on TEK holders. Lastly, the article concludes that there is need to review Kenyan law on TEK so as to clarify the legal status and relationship that exists between TEK holders, their knowledge and their ecosystems.

Keywords: Protection of Traditional Knowledge and Cultural Expressions Act, 2016, Intergovernmental Committee on Intellectual Property, genetic resources, Traditional Knowledge and Folklore, Traditional Cultural Expressions, Convention on Biological Diversity, collective bio cultural heritage, Traditional Knowledge, Traditional Ecological Knowledge, ownership

This article discusses the challenges of applying the concept of 'ownership' to Traditional Ecological Knowledge (TEK). TEK is a subset of Traditional Knowledge (TK) relevant to the ecological facets of life,[1] and therefore existing literature on TK is relevant in discussing TEK.

A common notion underlying the IP regime, is the idea of ownership[1] which poses some difficulties if used in the case of collective creations such as TEK.[2] The dangers of the IP notion of ownership are best illustrated by the increased cases of misappropriation of TK by individuals or corporations to the exclusion of TK holders.[3] This is so, since whereas the IP regime generally vests ownership rights to individual originators, TEK is a collective product of a community (although individual TEK holders may at times have distinct personal rights within the community structure). TEK is also trans-generational, meaning that successive generations have contributed creatively to it.[2] It therefore, becomes difficult to determine a right holder or an inventor in the case of TEK. Additionally, most IP tools have stringent criteria for protection which TEK might not necessarily meet.

The purpose of this paper is threefold. First, it discusses the nature and characteristics of TEK. This discussion is helpful as it depicts the holistic, the social-cultural and spiritual context within which TEK is held, and why the IP regime with its focus on conferment of 'ownership' rights may not be appropriate in protecting TEK. It then discusses the notion of ownership which underlies the IP regime. Thirdly, it uses the Protection of Traditional Knowledge and Cultural Expressions Act of Kenya[2] to illustrate the incongruencies, complexities and contradictions in the use of IP and property law concepts to protect TEK before concluding.

The Nature and Characteristics of TEK

The highly diverse and dynamic nature of TK makes it difficult to formulate a singular and exclusive definition of the term. TK has been described as:

'*Collective or conglomerate of different things the composition of which is changeable. The knowledge may be intangible or manifest in tangible forms. So for example, traditional knowledge pertaining to*

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fisheries, agriculture, natural resources and so on may be a form of traditional knowledge which is not immediately obvious, whereas the knowledge behind the carving of an artefact, the narration of a story or the performance of a dance may be more apparent, although the observer may not know which elements stem from traditional knowledge and which do not even if the whole appears to be an indigenous manifestation of culture.'[2]

As such, there is yet no accepted definition of TK globally. It is suggested that a singular definition may not be necessary in order to delimit the scope of subject matter for which protection is sought.[3] For instance, at the Ninth Session of the Intergovernmental Committee on Intellectual Property, Genetic Resources, Traditional Knowledge and Folklore (IGC), the Committee generally made use of the term 'traditional knowledge' at two levels: 'as a general, umbrella term (*lato sensu*) and as a specific term denoting the subject of specific IP protection on the use of knowledge (*stricto sensu*).'[3] At a general level, TK is conceived as the broad description of subject matter which,

'…generally includes the intellectual and intangible cultural heritage, practices and knowledge systems of traditional communities, including indigenous and local communities (traditional knowledge in a general sense or lato sensu). In other words, traditional knowledge in a general sense embraces the content of knowledge itself as well as traditional cultural expressions, including distinctive signs and symbols associated with traditional knowledge.'[3]

Therefore, TK *lato sensu* is the 'ideas and expressions thereof developed by traditional communities and indigenous peoples, in a traditional and informal way, as a response to the needs imposed by their physical and cultural environments and that serve as means for their cultural identification.'[9] This definition, however, seems to cover both aspects of protection of TK *stricto sensu* and Traditional Cultural Expressions (TCEs). In a narrow sense, TK refers to,

'*knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations. Traditional knowledge can be found in a wide variety of contexts, including: agricultural knowledge; scientific knowledge; technical knowledge; ecological knowledge; medical knowledge, including related medicines and remedies; and biodiversity-related knowledge, etc.*'[9]

As such, TEK is a subset of TK and according to the Convention on Biological Diversity (CBD), TEK is the 'knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity…'[3] This corresponds with Muller's assertion that TK (and TEK too) has three interrelated aspects: an intangible (knowledge *per se*); a tangible (material products or material innovations), and processes or procedures.[4]However, there are suggestions that the CBD defines TEK for that matter in a 'manner which approximates existing concepts of knowledge and intellectual property'[3] bringing with it the danger of fragmenting TEK and TEK systems which is strongly opposed by indigenous peoples[12] who see their knowledge as part of the complex relations with nature and fellow human beings. Another attempt in defining TK more holistically is by WIPO where it is defined as

'…any knowledge, creation, innovation or cultural expression, which is held by local or indigenous communities and has generally been transmitted from generation to generation…is generally regarded as pertaining to a particular people or its territory, and is constantly evolving in response to a changing environment' (emphasis mine).[2]

It is noteworthy that this definition uses the term 'held' and not 'owned' in describing the relationship between local or indigenous communities and their TK suggesting that they do not own it in the legal sense but are mere custodians. I will come to the issue of holding and custodianship of TEK later in this chapter. More recently, indigenous peoples and local communities have advocated for the concept of 'collective bio cultural heritage' in pushing for holistic approaches towards the protection of TK. According to this approach, TK is viewed as a collective bio cultural heritage which is the,

'knowledge, innovations and practices of indigenous and local communities which are collectively held and are inextricably linked to; traditional resources and territories; local economies; the diversity of genes, species and ecosystems; cultural and spiritual values; and customary laws shaped within the socio-ecological context of communities'(emphasis mine).[14]

Again, this definition underscores the fact that indigenous and local communities are mere holders of TK and not owners. However, the definition is broad

enough, as it sets out a framework for a holistic approach in protecting TEK, including rights to land, territories and resources; and the right to self-determination of indigenous peoples.[14] This part seeks to demonstrate that TEK is holistic, and as such the IP regime, with its focus on ownership rights, may not offer an adequate form of protection.

Because of the holistic nature of TEK, TEK can be classified into 4 broad groups: local TEK of animals, animal habitats and behaviours, plants, soils, weather patterns, and landscapes; the traditional resource management system; social institutions for social organisation, coordination, co-operation, rule-making and enforcement; and a worldview that shapes the environmental perception and gives meaning to social relations.[2] Clearly evident from this classification is the fact that TEK is a way of life, an integrated system of how a particular people 'think, believe and do' within a social, cultural and historical context and not just a repository of knowledge and practice.[2] Most IP approaches to TEK protection ignore the holistic characteristic of TEK explaining why such approaches seek to fragment and compartmentalise TEK into discrete components for protection using different IP tools. For example, in indigenous cosmovisions 'knowledge is mostly understood as existing in a social totality, embedded in social relations and spirituality.'[2] TEK is therefore not purely material or a mere resource to be owned, but an inextricable part of TEK holders' identity, as it is deeply rooted in their moral and spiritual values.[2] Its value goes beyond mere economic value, and its movement within a communal context does not generate profits as in the sale of other commodities. Since TEK emerges from cultural and spiritual relationships, commodifying it leads to the erosion of 'a value system that creates such knowledge and frays the ties that hold the community together.'[3]

But TEK is not only shaped by social forces. It in turn shapes society. The social processes informing TEK include dimensions such as: symbolic meaning through ceremonial practices, taboos, folklore or myths, place names and religious beliefs; a distinct cosmology or worldview, and relations based on reciprocity; obligations towards both community members and other beings and communal resource management institutions based on shared knowledge and meaning;[3] and the oral exchange of knowledge, innovation and practices according to customary rules and principles.[3] This indigenous cosmology which informs TEK, and within which TEK is held, is different from the worldviews shaping the IP regime.

TEK is unique in the sense that it derives from the physical, biological and spiritual experiences that are part of daily life and the interactions and relationships with the environment.[16] Often, TEK holders will spend a lifetime 'enhancing and maintaining appropriate and sustainable relationships with the Creator and all of Creation'[16] since TEK and bio-resources are seen as a gift from God, and no person or group is allowed to claim private ownership of them.[3] TEK holders are thus viewed as custodians and conduits rather than owners of their TK.

Moreover, some TEK and bio-resources are considered sacred and kept secret, hence not accessible by outsiders.[20] There are rules regarding secrecy and sacredness which govern the management of knowledge.[19] Because all creation is sacred, and the sacred and secular are inseparable, TEK resource management systems avoid reducing TEK to simply 'ecological' aspects[17] but also include moral and ethical dimensions as part of the management system.[3] Possibly, this explains the tendency of TEK management systems being non-dualistic thus making Western dichotomies of '*natural* v *supernatural*, *physical* v *metaphysical*, *sacred and profane*, *nature* v *nurture*' largely meaningless.[4] The harmonious coexistence between nature and society is inspired by a cosmovision that conceives of human beings, the non-human world, knowledges and spirituality as interdependent and related.[19] In this sense, TEK has a universal dimension that is 'expressed in the local.'[4]

TEK holders also view the people, knowledge and the land 'as a single, integrated whole' that is inseparable. TEK is 'holistic and cannot be separated from the people. It cannot be compartmentalised like scientific knowledge, which often ignores aspects of life to make a point.'[16] Thus, TEK systems depict ecosystems 'not as lifeless, mechanical and distinct from people, but as fully alive and encompassing humans.'[21]

TEK is based on continuous observation and close attachment to and utter dependence on natural resources and is thus a form of 'practical common sense, good reasoning, and logic built on experience.'[16] It is not static and discrete but dynamic and constantly evolving.[15]It provides access to a 'large amount of information and experience that has been previously ignored, or treated as mysticism.'[22] Such empirically derived knowledge provides

'scientifically testable insights into some of the most pressing problems facing humankind today'[22] such as climate change and food insecurity. TEK research contributes 'clear emphasis upon practical matters such as resource management and biodiversity conservation.'[21] It is also an authority system (a standard of conduct), setting out rules governing the use and respect of resources, and an obligation to share. It is dynamic, yet stable, and is usually shared in stories, songs, dance, myths and in most practices, customs and traditions of a community.[16]

TEK is intergenerational and kept in perpetuity so that it can be safeguarded, developed and passed from one generation to the next.[4] It evolves by adaptive processes and is handed down through generations by cultural transmission.[4] The transmission of TEK from one generation to the other is a collective responsibility and in most cases it is done orally.[4] Its trans generational nature suggests that it may require perpetual protection without time-limits as happens with IP protection. However, and whereas some of it may have ancient and mystical origins, it may also originate from a dynamic mix of past tradition and present innovation accumulated through trial and error over many years.[26]

In addition, TEK is held by 'individuals, clans, tribes, nations and different independent communities and its use and sharing is guided and regulated by complex collective systems and customary laws and norms.'[26] Therefore, TEK is more accurately viewed as communally and cumulatively generated and owned, and decision-making over it is collective.[20] Many members of a community contribute, modify and enlarge TEK over time as they use it[4] presenting a challenge in determining an inventor.

It is openly shared within and between communities thus providing access to other forms of knowledge and varieties. That notwithstanding, most of TEK cannot be alienated from the community by transferring ownership to another person or corporation because that knowledge 'is part of the distinct and collective identity and has meaning in the context of that community, not outside it.'[26] In any case, if consent to use, display, depict or exercise is given by the community, it is temporary and granted only on the basis of trust that the recipients will respect and uphold the conditions and customary laws of the relevant community.[26] Nevertheless, and as explained later, individual rights may also be recognised in some cases.[6] But where individuals hold TEK, their right to use it is collectively determined and they cannot use it in an unconstrained and free manner as they are bound by customary laws, traditions and beliefs of the community.[26] This is so because customary law helps in determining questions of TEK 'ownership', responsibilities and equitable interests associated with TEK, rights of customary use of TEK, benefit-sharing and how different rights and entitlements are identified and distributed within traditional communities.[4]

Some TEK is shared between cultures, communities and nations. In the case of shared TEK, there can be a difficulty in determining who and how to decide that communities have shared TEK since defining the 'originating culture' can be quite complex, and is more challenging if one community decides to allow outsiders to access shared TEK. In the latter case, further questions would revolve around the legitimate representatives of such communities, who may be said to have negotiating power although it is arguable that since TEK is part of cultural identity, from the first creator and in all further development, all the people from the very first one through the subsequent generations forming a community relating to the knowledge are legitimate beneficiaries.

From the above analysis, TEK is collectively held by different entities at different levels in a community. It is intergenerational and has to be transmitted from one generation to the other. It is also holistic and has social, physical, biological and spiritual dimensions. TEK is vital in defining the cultural identity of TEK holders, and is informed by their indigenous and local cosmovisions that conceives people, TK and land as inseparable. Customary law plays a crucial role in regulation access to and use of TEK. Additionally, some TEK is regarded sacred and/or secret. The nature of TEK presents technical and conceptual difficulties to the IP regime in protecting TEK. One such challenge arises out of IP regime's focus on the notion of ownership in conferring protection.

The Concept of Ownership

Generally, 'ownership' is understood to mean the quantum of rights a person or group of persons has/have in a thing (or any other proprietary interest) that cause people to assume that the thing or interest 'belongs' to that or those person(s).[4] Predominantly, the term property in a legal sense encompasses 'every species of estate, real and personal, and everything which one person can own and transfer to another.

It extends to every species of right and interest capable of being enjoyed as such upon which it is practicable to place a money value.'[4] Accordingly, 'ownership' in this classical liberal sense is usually conceived of as being the highest or greatest possible proprietary interest that a legal system can confer on an owner.[4] There are several property theories that justify 'ownership'.

The classical liberal definition of property, otherwise called the 'absolute dominion' or the 'physicalist' view of property, holds that property consists in the absolute ownership of the 'thing' itself. Under Roman law, the subject of property was mainly concerned with 'dominium', and ownership translated to absoluteness in three dimensions: that public power should not be used to confiscate private property without prompt and just compensation; absoluteness in the exercise of individual rights; and absoluteness in relation to the duration that one can hold their property.[4] The physicalist view of property is regarded as the origin of the legal technical concept of 'ownership', but also as the origin of private property.[5]

According to the bundle of rights theory, ownership consists of several incidents that of necessity must inhere in the 'owner' in relation to others.[5] Thus, ownership comprises the rights to: possess, use, manage, the income of the thing, capital, security, transfer and absence of term, the prohibition of harmful use, liability to execution, and the incident of residuarity.[34]Most scholars agree that the critical sticks that symbolize ownership out of the bundle are the right to exclude others; the right to possess and use, and the right to transfer.[5]

The common feature in both views of property is the centrality of the idea of ownership. The physicalist view of property, just like the bundle of rights theory, seems to give primacy to the elements of exclusivity, possession and use, and transferability, as the key incidents that essentialize 'ownership.' Moreover, under both views, the right holder is designated as an individual, an 'owner' who enjoys exclusive rights. The key difference between the two views of property lies in the measure of 'absoluteness' of ownership,[5] with the bundle of rights theory being more representative of fettered ownership (rights) than in the dominium.

Ownership and its application to IP

The IP regime is built upon the philosophy of ownership as it is concerned with 'how to give authors and other creators sufficient incentives to create and innovate while providing the public with adequate access to the fruits of their intellectual efforts.'[5] In fulfilling this aim, two critical assumptions seem to underlie the IP regime.[5] First, that the form of a particular intangible asset is the result of an act of creation, invention or innovation. And second, that the person responsible for that act of creation, invention or innovation can be identified. Such a person may, in most cases, be called the *owner* of the work. However, these assumptions are deeply problematic[38] when analysed in the context of TEK.

Firstly, the assumption that IP is the result of an act of creation gives rise to problems regarding parallel and cumulative creation. Parallel creation refers to instances where different creators arrive at essentially the same intangible without reference to one another. Cumulative creation refers to instances where there are concerted efforts among different actors over time to come up with one creation, to which more is added over time.[38] Parallel creation is perhaps problematic in the TK context when analysed through the lenses of communities who might have generated similar knowledge. The most common difficulty in such a scenario is determining which community is to receive recognition and protection for the shared TK. Cumulative creation is equally pertinent to TK because creative activity might be based upon already created material. The problem of cumulative creation is a huge concern to IP because if the IP system rewards creative activity, distinguishing between mere reproduction and cumulative creation is vital. And if IP products, even the most creative, also draw upon the well-known, then the challenge is identifying how creative an IP creation must be before it can be protected.[38]

In copyright, the question of cumulative creation is dealt with through the (uncertain) law of originality.[5] In patent, it is addressed through the complex rules as to novelty and inventive step.[6] Each of these standards attempts to identify how much value is added to an IP creation for it to be worthy of protection[38] such that once the patentability criterion is met, the inventor becomes the owner of a patent and likewise once the criterion for granting copyright is met, the author is regarded as an 'owner'. Although, if the creation is still confidential, a second creator can become an owner in his/her own right explaining why IP regime requires inventors to disclose their inventions to receive protection.

This is a huge concern also to TK which is intergenerational, meaning that it draws upon centuries of creative processes by previous generations. It is thus difficult for the relevant community to point to a particular act of creation of TK. In addition, it might be difficult for the present members of the community to identify an individual(s) involved in the creation of TK unless they claim to be the descendants of past generations that bequeathed TEK to them, and that through cumulative creation they have added to TEK.

Secondly, the assumption about an identifiable person raises unique challenges to IP protection. An intangible work may be the work of more than one individual, for example by joint creators, presenting a challenge in determining the rights of joint creators as against one another, individually, and collectively as against third parties.[38] Moreover, there are instances where IP protection ought to be available but no individual, or even group of individuals, can fairly be regarded as responsible for the creation or perhaps identified as a creator.[38] Whereas this challenge might not be prevalent with most IP creations, since the creator can easily be traced, with TEK it might not be easy to identify a single creator in whom the IP rights should vest because most TEK is collectively and cumulatively generated, and thus incompatible with the individualized ideology informing IP. The problem of determining an identifiable person(s) to receive TEK protection cannot be simplified and wished away as some IP scholars do, by arguing that 'multiple authored or invented works are not uncommon in the contemporary IP landscape.'[5] Such views ignore the fact that TEK is a product of centuries of cumulative creation, and cannot be compared with contemporary cases of collective/ group authorship in the IP world where the various authors can be easily identified.

The existing IP regime might therefore not offer appropriate protection for TEK because TEK holders may not be able to point to a particular act of creation of their TEK, or to a particular creator in whom the (ownership) rights should vest. An exception to this is with geographical indications and designations of origin which *are* protected without an identifiable act of creation and without an identifiable creator to whom control over their use can be assigned.[38] These considerations are useful in problematising the idea of ownership as applied to IP and its limits in relation to TEK.

Incongruence of the Notion of 'Ownership' in the Protection of TEK

Because of the nature and divergent aims of TEK and IP protection, there are technical and practical challenges of protecting TEK within the IP regime.[5]First, due to the narrow focus of the IP regime on material interests, it fails to offer robust protection to TEK which is holistic while 'ensuring cultural preservation and access to knowledge.'[5]For example, whereas products based on TEK and genetic resources are protected by IP law, the underlying TEK and genetic resources are not.[5] Consequently, it is plausible to concede that there are aspects of TEK, for example, indigenous seeds and plant varieties; the names of plants; genetic characteristics of plants; specific uses of plants and animal breeds; the techniques of planting, weeding, harvesting, hunting, gathering, herding; the tools used *et cetera* that might be protectable using IP. However, aspects of TEK that are sacred, secret/confidential, and are part of their collective cultural identity should be protected using different approaches.

Secondly, IP vests exclusive ownership rights in the author or inventor thus fundamentally contradicting with the ethos of TEK in a number of ways.For example, with TEK it is difficult to determine who 'owns' the knowledge within a given community[5] as TEK is collectively and communally held.[45] In spite of this, however, customary law may at times recognise the 'special status of certain individuals (like healers or medicine men)'[5] who may hold TEK on behalf of the community. This notion of 'holding' is different from the legalistic conceptions of ownership, as it is grounded and defined by the culture and 'living traditions' (that are constantly redefined and changed by society) of a community.[5] The holders of TEK (be they elders, clan, family or individual) are neither 'owners' in the legal sense, nor trustees (because under trusteeship, a trustee is vested with legal ownership), but traditional custodians.Traditional custodians are people with the primary responsibility for regulating access, use and control of resources (including TEK) in accordance with customary laws (including rites and taboos) and enforcing them.[47] The custody is neither alienable nor does it confer rights to exclude, alienate or transfer of TK[5] without the assent of the community. This is because TEK is an aspect of TEK holders' identity, and alienating it is equivalent to alienating part of their self-determination and historic claims to

sovereignty.[5] It also means that custodians of TEK hold it for the benefit of the concerned community. If outsiders are given permission to use TK, the custodians 'must determine how and with whom a part of the entirety of their traditional knowledge is to be shared.'[49]Additionally, customary law norms may 'impose restrictions on the way traditional knowledge is shared within the community and with outsiders.'[46]

In addition, TEK is trans generational as it is the product of generational indigenous efforts rather than the creativity of one living heir or those that contributed to it but are no longer alive,[5] thus creating a challenge in identifying a creator or innovator. But some disagree arguing that descendants of originators may serve as a 'good enough' kind of representative. According to Robert Merges,

'*the current inhabitants of traditional leadership roles are assumed to adequately represent the generations past and future who have an interest in protecting and profiting from the traditional knowledge. There is no pretense that this is perfect or even procedurally fair representation. But it is assumed to be the best we can do… What is needed in cases of dispersed creativity is to identify similar representative people or entities. They may not speak perfectly for all contributors, but they can be assumed to be good enough.'*[6]

Peru has attempted to overcome the challenge of ascertaining ownership or custodianship of TK by requiring that,

'The indigenous representative organization, whose prior informed consent is sought [representative organisations are deemed the legitimate TK negotiating body on behalf of communities], must inform the widest possible number of communities holders of the same knowledge that it is entering into negotiations, and take into account their interests.[5]

It is notable that the State here is not considered the custodian of even the shared TK; here it is taken for granted that representative organizations are the best avenue for this.

Moreover, TK is also held in a context of communal spirit of sharing and free exchange of resources such as seeds and related knowledge although customary norms may 'impose restrictions on the way traditional knowledge is shared within the community and with outsiders.'[46] It is thus almost impossible to confine TEK to a community cultural context. In practice, however, TEK can become part of the public domain or at the very least, become freely accessible to many. This applies to TEK which effectively 'escapes' a single person's control and becomes part of the collective knowledge which indigenous peoples and communities hold and claim to have rights over (often collective rights).[4] In any event, even if sharing of knowledge is for some communities entrenched in their cultural values and customary laws and systems, IP law counters these traditions and beliefs and dictates that the sharing of knowledge should carry monetary value.[7]It is clear then that protection of TEK does not necessarily mean 'closing off links with other cultural communities-or of the related commercial domain-to exploit that knowledge' but 'deciding what aspects of the collective identity may be used and disseminated beyond the community, and on what terms.'[50] This argument casts doubt into the assertion by IP proponents that TEK is in the public domain.[7]

According to TEK proponents, TEK could not have entered the public domain as it was never protected as IP, and even if it was, some of it such as herbal remedies are secret and hence not known to outsiders.[24] It, therefore, becomes necessary to propose a framework, as this study does, that can help in striking an appropriate balance between access to TEK and the protection of cultural integrity of TEK holders.

Third, demarcating explicitly the ethnic and cultural boundaries of a people is problematic due to the dynamic nature of culture, changes over time and geographical spread across communities and nations. Where a culture has been in existence for centuries, 'determining the "originating culture" can require herculean effort.'[2] It is thus argued that the culture should not have a broad property right to 'lock up' knowledge and thereby exclude all other potential users but only a right to prevent wrongs directed at the culture.[2] A property right designed to preserve culture, may also directly contradict the policy of dissemination as it allows the owner to prevent others from using the knowledge.[2] Where cultures are shared there may arise difficulties, if a joint property right is granted and one joint owner decides to allow outsiders to use the knowledge.[2] This act may threaten the continued existence of the other culture thus defeating the purpose of the property right.

Fourth, IP rights are protected for a limited duration of time which may not be apt for TEK.[2] For instance, how would that time be measured? Would it make sense to create rights for ancient knowledge? Some suggest

that given the intergenerational nature of TEK, it should be protected perpetually and possibly retroactively to protect historical works.[24] However, if perpetual protection is offered to TEK, access to the knowledge by outsiders would be hampered. Similarly, it is contended that granting new rights over TEK would mean a retraction of knowledge that is already in the public domain thus requiring TEK holders to 'provide a solid public policy rationale for limiting access to, and use of, such information.'[24]

Fifth, there are objections to IP rights in TEK rooted in IP policy. Generally, the grant of a property right is viewed as 'society's reward to the innovator for his creative efforts' and as 'a financial incentive to encourage innovative activity.'[2] Because the reward theory provides incentives for new creations, it is not apt in justifying the protection of existing knowledge like TEK.[7] But because of the intergenerational nature of TEK, it is rather difficult to justify property rights in TEK under the reward theory not because of lack of creativity but rather because the grant of exclusive rights does not provide the right sort of reward for that creativity.[2]

Moreover, the intergenerational nature of TEK would suggest that property rights in TEK would give the reward to the wrong party[2] violating the basic policies of the prevailing reward theory. And even if the knowledge is of recent origin and the originator can be identified, most proposals for IP in TEK would vest the rights not in the person but in the person's culture or an agency that simply owes fiduciary duties to the culture. Therefore, a grant of IPRs in TEK would run afoul of these fundamental policy concerns. Clearly, TEK fits poorly within standard justifications of IP rights.[7]

The failure of the IP regime to pay adequate attention to the unique nature of TEK and the concerns, beliefs, worldviews and customary laws and practices of indigenous peoples encourages continual loss of TEK without attribution or compensation to the TEK-generating community.[7]

In the ensuing part, the article critically examines some provisions of the Protection of Traditional Knowledge and Cultural Expressions Act of Kenya, to illustrate the incongruences, complexities and contradictions in the unguarded use of the property concepts and notion of ownership in protecting TK in Kenya.

The Protection of Traditional Knowledge and Cultural Expressions Act (2016)[7]

This Act aims 'to provide a framework for the protection and promotion of traditional knowledge and cultural expressions' in Kenya, giving effect to Articles 11, 40 and 69(1)(c) of the Constitution, 2010 and is thus relevant to TEK which is a subset of TK.

Definition of 'owner' and 'holder' of TK

Under The Protection of Traditional Knowledge and Cultural Expressions Act, 2016, there is confusion as to the usage of the terms 'owner', and 'holder'. The Act vests 'ownership' of TK on local and traditional communities, and recognised individuals or organizations entrusted with the custody or protection of TK in accordance with customary law and practices.[7] It goes ahead to define a 'holder' of TK as recognized individuals or organizations within communities who are entrusted with the custody or protection of TK in accordance with customary law and practices.

There is an apparent mix up of the notion of 'ownership' and custodianship in the definition of an 'owner' and a 'holder' which creates confusion and ambiguity in the law. The relationship between 'owners', 'holders', 'custodians', and 'members of the communities' and how they are to be identified is not clear from the law.[7] This confusion is apparent when the law seeks to confer the right to protection of TK on both 'owners' and 'holders'.[8] The Swakopmund Protocol avoids this problem by defining owners as the 'holders of TK' 'namely the local and traditional communities, and recognized individuals within such communities, who create, preserve and transmit knowledge in a traditional and intergenerational context.'[7]The Act ought to be reviewed to remove references that seem to suggest that TK holders are owners of TK since as explained above, they are merely custodians with responsibilities and who hold that knowledge on behalf of the past, present and future generations.

Definition of a 'Community'

Under the Act, a 'community' is defined broadly to mean a homogenous and consciously distinct group of people who share any of the following attributes-common ancestry; similar culture or unique mode of livelihood or language; geographical space; ecological space; or community of interest.[7] Such a broad definition of a community poses challenges to TK 'since communities may consist of millions of people stretching from remote rural areas to city suburbs, decision making about consent and benefit sharing may be difficult.'[8] In essence, such a wide definition also broadens the scope of what the Act defines as 'owners' or 'holders' of TK; and who can effectively

be conferred with rights over TK to the detriment of the genuine TK holders and beneficiaries. Since TK is inextricably linked to the cultural identity, territorial and self-determination rights of its holders, the quintessential element in defining the relevant community for purposes of TK protection under the Act ought to be whether or not the group of people seeking protection are TK holders or beneficiaries of those holders under the applicable customary law.

Holistic nature of Traditional Knowledge

As illustrated in the foregoing discussion, TK is holistic, and has cultural and spiritual moorings that are essential for its existence and communal survival. However, the Act focuses on TK mechanically as a mere commodity, and ignores the fact that TK exists within a biocultural, biospiritual and ecological milieu, and is essential to the integrity of its holders.

A review of the Act, to recognize the holistic nature of TK and linkage to TK holders' cultural identity and their resources, lands and territories is needed. Moreover, there is need for the law to reflect the appropriate relationship of TK holders *vis-à-vis* their knowledge, that is as custodians of TK. As emphasized earlier, TK holders as custodians are vested with the primary responsibility for regulating access, use and control of resources (including TK) in accordance with customary laws (including rites and taboos) and enforcing them.[47]

Right to Protection of Traditional Knowledge

The Act provides 'owners' and holders of TK with the right to protection of TK. As highlighted earlier, TK holders are merely custodians vested not only with 'rights to its use but also bio-spiritual virtues guiding its use and responsibilities and obligations to the communities and ecosystems in which it is used'[18] but the Act seems to erroneously divorce custodial rights from their reciprocal responsibilities.

Protection is extended to TK that is 'generated, preserved and transmitted' over generations in a community with which they are 'distinctively associated' and 'integral to [its] cultural identity'.[6] This approach is usually advanced as a possible conceptual link between traditional knowledge and its holders.[8] However, from the way the provision is couched, it appears as if TK that does not meet the set conjunctive conditions may not receive protection. There is need to relook into this section, for instance, so as to take into account TK that is new but generated by local communities in their daily interactions with their environment.

Both moral[8] and economic[8] *sui generis* rights akin to IPRs are conferred on 'owners' and 'holders' of TK (or in their absence, a state agency). There are additional cultural rights in TK which include any subsisting rights under any law relating to copyright, trademarks, patents, designs or other intellectual property[8]affirming a misguided attempt at approximating TK rights and IP rights. As pointed out earlier, custodians of TK have rights as well as reciprocal responsibilities to the communities and the ecosystems in which TK is used, and as such the Act cannot merely be seen to confer rights over TK without the reciprocal obligations. Since TEK is cultural, communal, trans-generational, dynamic, holistic and informed by a communities' unique worldview, creating and vesting exclusive IP like rights over TK is bound to be problematic, and perpetuate continual misappropriation of TK in Kenya. While commenting on the law in its draft form, Harrington and Hughes correctly note that it 'freely mixes ideas from conventional IP protection, sui generis regimes for TK and TCEs and the 2003 UNESCO Convention on the Safeguarding of the Intangible Heritage without trying to harmonize them or limit problematic consequences from the different approaches taken.'[60] However, rights in TK are conferred without formalities[9] and exist in perpetuity as long as the subject matter complies with the requirements for protection.[9]

Role of National and County Governments in Traditional Knowledge Protection

Under the Act, both the county and national governments are charged with the responsibility of protecting TK. The county government is to *inter alia* establish a TK repository within a county and to preserve, conserve, protect and promote TK of communities within the county.[8]On its part, the national government is to *inter alia* establish and maintain a national TK repository at the Kenya Copyright Board and to preserve, conserve and protect TK from misuse and misappropriation.[9]

Such a state-centric, top-down approach to TK protection is an affront to the collective rights of local communities that,*inter alia,*requires the participation and involvement of communities using their own traditional governance structures in making decisions touching on their resources. Harrington and Hughes argue that the role of government should be simply to support the role of communities, since TK is generated and transmitted within communities, and is

central to their identity. Therefore, communities should bear central responsibility for protecting, conserving and safeguarding TK, and they have the right to prevent misuse and determine access.[60]

However, 'effective ownership presumes clear structures of representation and a leadership capable of enforcing property and contractual rights'[8] which are not recognized in the law. Most importantly though, the Act must recognize the central role played by TK custodians under customary law and governance structures, and involve and/or engage them in TK protection. As pointed out earlier, TK custodians bear the ultimate responsibility of regulating questions touching on access, use and control of TK in accordance with the relevant customary laws and practice of the concerned community.

Establishment of TK Registers and Databases

Although registration of TK in the repository is purely declaratory and does not confer rights in itself,[8] the role of communities in establishing the registers and in the protection and promotion of TK is not clear. As mentioned earlier, TK is part of the collective and cultural rights of its holders, and it is ironical that the law does not recognize the importance of consulting and obtaining the free prior informed consent of communities before documenting their TK. TK registers and databases have been criticized as they tend to systematize TK under certain pre-established criteria and provide an informational platform which is often alien to indigenous peoples in content and process.[4] Equally, it is not apparent who 'owns' the database and documented TK under the Act. Is it the communities or the county or national government? Likewise, the role of customary laws and traditional governance structures in the protection of TK is not addressed.

Tension between Sovereign Rights and Local Communities' Rights to Traditional Knowledge

Whereas the provisions of the Act seems to ambiguously vest 'ownership' of TK on communities, the State is vested with immense responsibilities, rights and trusteeship roles over TK, which ordinarily should be on TK custodians. For example, the law states that '*where protected TK is not being sufficiently exploited by the owner or rights holder, or where the owner or holder of rights in TK refuses to grant licenses for exploitation, the Cabinet Secretary may, with prior informed consent of the owners, grant a compulsory license for exploitation subject to Article 40(3)(b) of the Constitution.*'[8]

It appears from this provision that the law applies a philosophy of 'property' common to real property to TK such that the latter is treated like a resource that can be alienated/compulsorily acquired from TK holders by the State. Some concerns arise from this approach. For instance, TK is part of the cultural identity of a people, an aspect of their right to self-determination and is essential for their survival and livelihood. Therefore, it cannot be treated like private property with respect to which the State can exercise its eminent domain powers of compulsory acquisition. Moreover, there is a wrong assumption that communities will grant free prior informed consent to the compulsory licensing. This is incorrect as communities have the right not to grant such consent.[8]

Further, TK is treated as a resource that 'belongs to the people of Kenya' collectively like land. Treating TK like a national resource might end up rewarding the wrong persons for the creativity and denying the community an opportunity to get equitable benefits raising out of the use of their TK. Likewise, benefits for the protection of TK are framed as primarily local (for communities in Kenya) and national (for Kenya as a nation state)'[9] as is the case with other forms of real property essentially undermining or ignoring the creative contributions of local communities as envisaged in the National Policy on Culture and Heritage, 2009. According to Harrington and Deacon 'Compulsory licensing' provisions in the Act allows the government to bypass the community in permitting commercialization where TK or TCEs are not being 'sufficiently exploited'.[64]

They argue that while this power is constrained by checks and balances, it could allow the national interest to take priority over community rights and should be debated further.[64]

Role of Customary Law and Governance Structures in Protection of TK

The role of customary law and institutions in TK governance has been documented and includes: the identification of TEK; ascertainment of beneficiaries; definition of custodianship; the nature of community custodianship over TK; the rights and responsibilities associated with custody, access rights, protection of customary use, means of dissemination and preservation of knowledge; and the customary mode of defining modalities of PIC, benefit sharing mechanisms, dispute settlement, and sanctions for infringement of customary law.[8]

The role of customary law (and traditional governance structures for that matter) in the

'regulation of traditional knowledge is vital to the protection of cultural integrity and the realization by Indigenous peoples and local communities of their rights to decide their own development paths and to exercise their human rights to self-determination.'[79] Whereas customary law plays a prominent role in the regulation and protection of TEK, the Act does not recognize and give prominence to customary law and traditional governance structures especially in defining custodianship and the rights and responsibilities associated with custodianship.[74] Instead, immense responsibility is placed on the national and county governments in TK protection.

Shared Traditional Knowledge

As pointed out earlier, there are numerous challenges bedeviling shared TK and TEK for instance in determining who and how to decide that communities have shared TEK, and what happens where knowledge is shared by different ethnic communities? It would be difficult to establish the authentic 'owners' of TK in such cases, and as such there could be numerous and conflicting claims to 'ownership' of the same TK since 'members of different ethnic groups live alongside each other in many parts of the country.'[74] The Act does not help in resolving such entitlement conflicts over shared knowledge. Moreover, the Act 'does not make clear provision for cross-border cooperation for either the protection of trans boundary TK or the protection of TK originating in other states.'[8] It pursues cross-border cooperation mainly through reciprocal bilateral agreements with other states which may 'create a patchwork of very inconsistent approaches.'[80] Suggesting perhaps the need for Kenya to ratify the Swakopmund Protocol as it provides for cross-border cooperation and administration of trans-boundary TK between signatory states.[80]

Conclusion

From the above discussion, it is clear that the intention of the drafters of the Kenyan law on TK was to vest full 'ownership' of TK in the communities themselves. Beyond this idea, however, there is the practical difficulty of ascertaining the actual structure in which such 'ownership' might vest, especially in terms of identifying the legal representatives as well as recognized decision-making levels. Because the concept of 'ownership' as known in IP is quite alien to TK holders, and the latter are merely custodians on behalf of past, present and future generations, the customary law of the respective communities offers a huge promise in the protection of TK. As demonstrated earlier, customary law sustains and continues to vitalize the intellectual, cultural and spiritual life and heritage of TK holders.[81] Accordingly, it serves as the fundamental legal basis or source of law for a community's legal rights over TK, a factual element in establishing a community's collective rights over TK, as well as a means of determining or guiding the procedures to be followed in securing a community's 'free prior informed consent' for access to and/or use of TK. Therefore, customary law ought to be given primacy as a regulatory tool in establishing contractual arrangements for benefit-sharing where TK is being commercially exploited. Whereas customary law plays a useful role in determining the rules of access, use and exercise of control over TK, the Kenyan Act gives a wide berth to customary law and its role in TK protection. The IP regime and its proposed reforms cannot help clarify the 'ownership' conundrum surrounding TK and TEK in Kenya. Solutions might come from customary law and traditional governance structures of respective communities.

As suggested in Part 5, there is need to relook into the Act and clarify the legal status and relationship that exists between TK holders, their knowledge and their ecosystems. Existing literature shows that those holding TK are custodians and not owners. The definition of a community for purposes of TK holding needs to be narrowed down to TK holders or beneficiaries of those holders under the applicable customary law. Moreover, the provisions vesting rights over TK are inappropriate in the context of TK and TEK as they fail to recognize the TK holders'cosmovisions and worldviews that confer rights on custodians of knowledge as well as reciprocal responsibilities to their communities and the ecosystems in which TK is used. Moreover, the top-down approach to TK governance in the Act,where the national and county governmentsare vested with immense responsibilities in TK protection,is offensive to the collective rights of TK and TEK holders, and ignores the fact that there are TK custodians who are vested with responsibility over access, use and control of TK under customary law. Further, the highly top-down and state-centric approach to TK governance granting the State huge powers to compulsorily license TK if it is not being sufficiently

exploited, requires revision since TK is an aspect of a communities collective sense of identity that is inalienable. Most importantly, the law requires amendment to factor in the worldviews, cultural, communal, trans-generational, dynamic and holistic nature of TEK which may not be protected by creating and vesting exclusive IP-like rights over TEK.

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