

# Rethinking Strategies in Legal Protection of Traditional Knowledge – A Case Study of Thailand <sup>1</sup>

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**Abstract:** This paper attempts to analyse Thailand's current strategies in protecting its traditional knowledge (TK) and biological resources. It will question how adequate the existing regime is, while seeking to highlight the various discrepancies within the system. It will reassess not only the definition of TK, but also the objectives of protection. Ultimately, this paper thus attempts to provide workable solutions to resolve the cracks and fissures of the present system in the search for an optimal strategy.

**Keywords:** Law, Traditional Knowledge Protection, Intellectual Property, Strategic Reform, Thailand

## PART I : UNDERSTANDING TK

1. What is 'Traditional Knowledge'? - The need for a reconceptualisation

Generally speaking, TK is a form of knowledge which has a traditional link with a certain community. It is developed, sustained and passed on between generations, sometimes

<sup>1</sup> "บทความทางวิชาการดังกล่าวได้รับความอนุเคราะห์จากสมาคม (สมาคมนักเรียนไทยในสหราชอาณาจักรในพระบรมราชูปถัมภ์) จากผลงานทางวิชาการในการประชุมวิชาการของสมาคม (Samaggi Academic Conference 2008) ซึ่งจัดขึ้นเมื่อวันที่ 17 กุมภาพันธ์ 2551 ณ มหาวิทยาลัย Imperial College, London"

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through specific customary systems of transmission (WIPO 2005a). TK usually arises as an intellectual response to the provision of basic necessities of life – food, shelter and medicine – and for this reason, it is essential to the people’s cultural identities, inseparable from their very way of life.

The above notwithstanding, there appears to be much confusion as to the precise elements of TK. Some academics such as O’Connor (2003) have used ‘TK’ to include both traditional biodiversity-related knowledge (e.g. traditional agricultural, medicinal and ecological knowledge i.e. ‘know-how’), and traditional cultural expressions/folklores (TCEs) (e.g. traditional music, art, performances, architectural forms, handicrafts, etc.) Conversely, a more restrictive definition of TK is often presented, which omits TCEs from discussion. Instead, commentators often associate ‘TK’ only with biodiversity-related knowledge, in particular ethnobotanical knowledge.

The issue is further complicated by the inclusion of tangible biological resources into the definition. Although various academics have quite rightly discussed the protection of ethnobotanical knowledge together with the protection of biological resources, they tend to understate the fact that certain biological resources may not

relate to TK at all e.g. a newly-discovered microbe. It seems inappropriate to discuss this type of biological resources under the heading of ‘TK protection,’ because often, they have no ‘traditional’ or cultural link with local communities, and should therefore be treated separately.

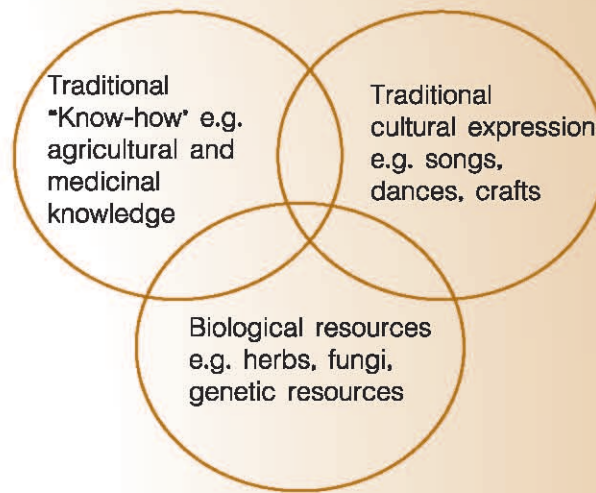
It is proposed that the current diverse interpretation of ‘TK’ is unsatisfactory. It has generated a great deal of confusion and led to fragmented views on how best to protect TK. While there may be essential differences between ‘know-how’ and TCEs that warrants separate discussion, it seems inappropriate to treat ‘know-how’ as completely separate from TCEs, because there can be overlaps between the two. Consider ‘trees worship.’<sup>8</sup> It is in itself an ecological ‘know-how’ to preserve the forest, but it also forms part of the people’s traditional practices which are TCEs. It is also noteworthy that the trees themselves are clearly biological resources. Taking this into consideration, the interconnection among the three elements of TK – ‘know-how’, TCEs and biological resources – is undeniable.

In light of this, one can see the complexity of the issues surrounding a definitive definition of TK. It is put forward that an alternative definition of TK, which will be adopted throughout

<sup>8</sup> A traditional belief whereby an old (generally large) tree is said to have a guardian angel; people usually put colourful ribbons around the tree with a stand for candles, incense and food; the belief is that those interfering with the well-being of the tree would face adverse supernatural consequences



Figure 1 : TK Diversity



this paper, should be based on the understanding of the interaction between the three main elements (see Figure 1 below).

## ■ 2. Why Protect TK?

### 2.1 Understanding 'protection'

It has been suggested that there is 'a lack of clarity about the ultimate objective of the "protection" of TK,' because the whole argument about TK is 'symptomatic of much bigger questions relating to the position of communities within the wider economy and society... [Thus] the "protection" of TK may be an unsuitable policy instrument for resolving the more fundamental problems [e.g. poverty]... or even a diversion from addressing them more directly' (Clift 2007 p.198).

It is proposed that this undesirable situation can be resolved by adopting a thorough understanding of the diversity of threats to TK and how they are interlinked. At present there appears to be three main threats to TK as described below:

a) Biopiracy and inequitable commercial exploitation

Thailand has witnessed a number of 'biopiracy' incidents. The patenting of the medicinal extract from Plao Noi<sup>4</sup> in 1983 by a Japanese company provides a good example. Potentially, the Thai economy may have benefited from the income generated from Plao Noi cultivation, but the existence of a patent severely limits Thailand from conducting further research and making the best use of its own resources. A more recent

<sup>4</sup> A traditional Thai herb found in most parts of Thailand, the extract of which has the medicinal property of curing stomach ulcers.

example is the 2002 patenting of Kwao Krua's extract in the US. Traditional Thai healers may still use and sell products from Kwao Krua<sup>5</sup> in Thailand but the patent prevents any exports of Kwao Krua products into the US market.

## b) Breakdown of traditional communities

Numerous people from rural areas, especially from the Northeast of Thailand have moved into cities, seeking employment in factories, leaving their farms and families behind. Such trends have inevitably disrupted the traditional way of life of the local people and jeopardised the transmission and continuation of TK. At present, most efforts appear to have been put into dealing with more obvious biopiracy cases. The mentioned socio-economic problems must not be overlooked, however, as they are often linked with more fundamental problems, for example poverty. Arguably, if people are struggling to find food and shelters on a daily basis, any proprietary TK rights given to them would be of little use. Therefore, 'TK protection' objectives should take into account wider concerns of the local communities.

c) Loss of natural habitats and biological resources

Since TK is intrinsically linked with biological resources, it can be persuasively argued that the deterioration of those resources would inevitably have a negative impact on TK. The urgency of the situation is heightened when one considers that TK is being lost at an alarming rate, along with a continual erosion of biodiversity. Therefore, TK protection objectives should also incorporate sustainable development and environmental protection.

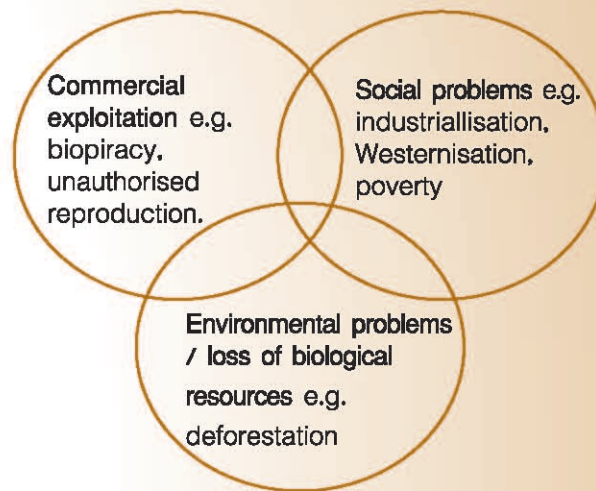
## 2.2 Putting things together - towards a coherent framework

It must be stressed at this point, that the aforementioned threats should not be looked at in isolation. 'Poverty' for example, not only leaves individuals susceptible to commercial exploitation, but also greatly increases the likelihood of environmental degradation. This is because under such testing circumstances individuals may be left with no choice but to damage the environment (e.g. deforestation) in order to fulfil their basic needs. It is proposed that a genuine understanding of how the problems interact is crucial for effective TK protection (see Figure 2). This is because it will help policy-makers avoid indirect treatment of the problems associated with TK.

\* A traditional Thai herb with revitalising properties that may enlarge and firm breasts, and assist with male sexual performance and erection.



Figure 2 : Threats to TK



In short, TK protection has three main objectives: 1) to prevent biopiracy and misappropriation of TK, 2) to acknowledge the importance of socioeconomic policies in the preservation of TK and 3) to conserve the environment. With this in mind, the paper will now consider how existing legal regime can be used to protect TK.

## PART II: MAKING IP LAW WORK FOR TK

IP-related principles such as unfair competition, trade marks, performers' rights, industrial designs, trade secret and geographical indications have been found practically useful for TK protection. For the purpose of detailed discussion, however, this paper will only consider the law of patent and copyright.

### ■ 3. Patent

Modern patent system seems to be incompatible with the TK system for a number of reasons. First, TK is usually transferred from one generation to the next and has always been in the public domain, i.e. it is not novel or inventive under s.27(1) of the TRIPS Agreement and cannot therefore be patented. Second, it is sometimes difficult to identify the first inventor of the knowledge, which means that allocating rights may be problematic. Third, and perhaps the strongest argument advocated, is that the motive for the advancement of TK knowledge was not the financial incentive, but rather a search for livelihood. For this reason, some academics have argued that patent law is wholly unsuitable for the protection of TK. Clift (2007 p.202) contends that "a critical issue, which is often ignored, is the value of the "public domain" as a source of

knowledge and new inventions. Giving exclusive protective rights to TK threatens the availability of this knowledge for the greater good,' and may 'disrupt community processes that contribute to the continuing advance of TK.

However, when TK has been put into the 'public domain,' what should not be overlooked is the question of how TK usually falls into the public domain - an 'unconsented placement of knowledge into the public domain does not in itself extinguish the legitimate entitlements of the holders and may in fact violate them' (Dutfield 2004 p.58). Thus, Clift's argument is unconvincing. Moreover, he overlooks the possibility that not all TK has been put into the public domain. In fact, various healing methods have been reported to have been held under a secrecy regime (WIPO 2001). Under such circumstances, it is possible for traditional communities to apply for patents. The fact that China granted 3,000 patents for innovations within the field of traditional Chinese medicine in 2001 (WIPO 2005a p.3) illustrates the possibility of protecting TK through patents.

Admittedly, acquiring and defending patent protection requires substantial financial resources, thus the (usually poor) local communities are unlikely to afford the high cost of litigation, expert advice and the monitoring of infringement. Therefore, arguments for positive (right-giving) protection are

often supplemented by defensive protection - that is to protect TK against acquisition and exploitation by third party. This usually consists of an establishment of TK Database, and the modification of the current criteria of patentability. Such modifications would include a disclosure of origin of biological resources/TK and a provision of evidence of compliance with national laws (i.e. on access to and use of TK).

Under s.9 of Thailand's Patent Act (PA) B.E. 2522 (1979), as amended in 1999, inventions relating to microbes, plants, animals, their extracts (s.9(1)) and treatment procedures of human or animal illnesses (s.9(4)) are excluded from the scope of patentable subject matters. This can benefit TK-holders indirectly insofar as it prevents third parties from securing a monopoly control over the use of existing TK. As regards the disclosure of information, s.17 requires an applicant to disclose inter alia the name, purpose, and characteristics of the invention, but does not require the applicant to reveal the origin of biological resources/TK used in the invention. Arguably, it is in Thailand's interest to have stronger protection of TK, and s.17 should thus be amended to cater for the need to protect TK by requiring patent applicants to disclose the origin of TK used in their inventions.



#### ■ 4. Copyright

Although copyright only protects the way the idea is expressed, not the actual idea itself, it can be used to curb unauthorised reproduction of traditional artistic works, handicrafts, dances, and dramatic performances (see, for example, an Australian case *Bulun Bulun vs Nejlum Pty Ltd* [1989] 1082 FCA). The difficulty of fixation requirement can be overcome to protect unfixed cultural expression by extending the definition of copyrightable subject matter to unfixed cultural expressions – as seen in s.6 of Thailand's Copyright Act (CA) B.E. 2537 (1994). Moreover, the concept of 'moral rights,' which includes the paternity right and the right of integrity, is incorporated into s.18 of the Act. Moral rights can be useful in the protection of TK because TK is an expression of people's cultural identity that needs to be acknowledged and respected. Thus, s.18 is to be commended.

However, so far we have made an assumption that a 'community' can collectively possess copyright over a work. Unfortunately, CA was primarily designed to protect individual interests, not community interests and there appears to be no evidence that a community may hold copyright over a work. S.8 of the Act implicitly states *inter alia* that the 'author' is an individual who creates the work. This suggests that TK-holders cannot

collectively rely on the moral rights provisions or any other provisions of the Act.

Arguably, where a community and their knowledge can be readily identified e.g. in case of a tribal community, there is no practical reason why that community cannot be given a collective copyright over their cultural expressions. Furthermore, experience from other countries suggests that it is not essential to name an author to acquire copyright protection as there are ways to make authors disappear, e.g. the use of work-for-hire doctrine by the US (see Jaszi 1991). Consequently, a community or organisation representing the work could hold copyright over a work originating in that community whether or not there is an identifiable author. Therefore, it is proposed that CA should be amended, or alternatively, broadly interpreted to recognise the collective right of an identifiable community.

One problem remains, however. It has been suggested that for TK protection to be meaningful, it is necessary to allow local communities to control the exploitation of the information disclosed in the text. This is not the case under copyright law. In light of this, it seems that copyright law may not be the most appropriate tool for TK protection. Indeed, it has been argued that *sui generis* laws would be '...far more effective in the long run'

than existing laws because they can accommodate the special characteristics of TK (Kuanpoth 2007 p.40). This paper will therefore proceed to discuss Thailand's sui generis regime.

### **PART III: THAILAND'S SUI GENERIS REGIME**

#### **■ 5. Plants Varieties Protection Act B.E. 2542 (1999) (PVP)**

For the purpose of TK protection, the section on local plant varieties is most relevant (ss.43-47). S.44 establishes a registration system, whereby local plant varieties 'which are found exclusively within a particular traditional community in Thailand' can be registered for protection under the name of the community in which the plant is found (s.43). Upon registration, the community is given an exclusive right to develop, produce, sell and export the plant (s.47(1)). This right lasts for a maximum of twelve, seventeen or twenty-seven years, depending on the characteristics of the plants (s.31). This acknowledgement of collective rights resolves the problem of unidentifiable TK-holders, while recognising the role played by farmers and local communities as custodians of traditional crops (Kuanpoth 2007 p.3).

There also appears to be an attempt at balancing public and private interests. S.47(2) provides that the rights are unenforceable where the plant is used without commercial purposes, or when the propagation is done through using the seeds produced by the farmer himself. More importantly, access and benefit-sharing (ABS) mechanism was established (s.48), whereby those seeking to 'collect, procure or gather' registered local plant varieties are required to conclude benefit-sharing agreements with the relevant community. This suggests that there is also a strong incentive for local communities to register their varieties to receive both protection from misappropriation and possible monetary benefits.

In relation to the use of general and wild varieties, those seeking to use the plant for commercial purposes are required to apply for a licence from the Ministry of Agriculture (Chaiyos 2007 p.397). The permit licence can be issued subject to certain conditions such as benefit-sharing agreements must be concluded (s.52). Arguably, this mechanism is efficient and user-friendly because consent can be sought through the Department of Agriculture office as a 'one-stop-shop.' The royalties from the agreements will be put into the Plant Varieties Protection Fund (Ch.6), which will be used for supporting plant breeding research and development.



Nevertheless, there is still a considerable amount of trial and error involved in the implementation of the consent/benefit-sharing mechanisms. It has been suggested that ABS agreement should be sensitive to the fact that the value of the commercial application of TK will be unknown for some time and is likely to change (Kuanpoth 2007). Therefore, there is no 'one-size-fits-all' formulation of ABS mechanism, and diversity in approaches should be encouraged (Robinson 2006). Furthermore, it is desirable for the Government to set up a specialised body to supervise ABS agreements, because as with any contractual agreement, there are issues of equal bargaining power between local communities and commercial enterprises.

#### ■ **6. Act on the Protection and Promotion of Traditional Thai Medicinal Intelligence B.E. 2542 (1999) (APPTMI)**

Under the Act, 'traditional Thai medicinal knowledge' is defined as knowledge which is related to 'any procedures relating to medical examination, treatments, health promotion, Thai massage, and medical apparatus, which are developed and passed on from generation to generation' (s.3). This definition specifically deals with those inventions which are not patentable under s.9 of PA discussed

above. The knowledge is divided into three categories (s.16).

1) General formula: knowledge that is already in the public domain and is free for everyone to use (s.18).

2) National formula: those of significant benefit or have special medicinal value; the Ministry of Public Health may announce a certain formula as national formula, making such knowledge a 'State property' (s.17), the use of which must receive permission from relevant government officials (s.19).

3) Personal formula: this is medical formula which has not been revealed to the public and is not a national formula. It can be registered by an inventor, developer, or an inheritor of the inventor/developer of such a formula (s.21). The Act gives the owner exclusive right to use and develop the registered personal knowledge, to produce, sell and distribute any product developed or manufactured by using the registered medicinal formula (s.34).

This division of TK into three categories is unique and should be commended because it takes into account the diversity of TK. Moreover, the Act adopts a flexible approach to ownership: under s.21, the 'inventor, developer and their inheritors' of the knowledge can be an individual, private organisation or a community (Sithigumjorn 2000 p.60). Subsequently, where an individual inventor cannot be identified, the knowledge can still be

protected under the Act provided there is an identifiable community, the advantage of which cannot be provided by modern patent law.

S.34 provides that the rights may not be enforced against academic research without commercial interest, preparation of medicines by traditional healers, or production of drugs for household use or for use in State hospitals. Arguably, this represents a compromise between the interest of the right-holder and the public interest and suggests that the rights of TK holders are by no means absolute.

Regrettably, the notion that the Act strikes the right balance between private and public interest is undermined by the concerns over the issue of duration. S.33 provides that the right lasts for life plus fifty years (identical to Thailand's copyright law). Kuanpoth (2007 p.40) pointed out that there has been no thorough economic analysis to determine an optimum duration of TK protection in Thailand and it remains to be seen whether such a long period of protection will create 'an unnecessary burden on society or provide unreasonably large profits for the TK owners.'

The APPTMI also attempts to protect Thailand's biomedical resources by conferring power to the Ministry of Public Health to put a plant/herb it considers at high risk of extinction on the extinction list. Under s.46, no one can conduct research, export, sell or modify the listed herbs for commercial

purposes, unless permitted by the authority concerned. Moreover, the Act provides a mechanism for the conservation of the natural habitat of the herbs, whereby a committee is set up to conduct ecological investigation in designated conservation areas and to monitor the use of and access to those areas (s.57). The significance of these provisions can be found in their attempt to conserve herbs and biomedical resources, while recognising in situ conservation as part of biodiversity conservation (ss.57-65).

## 7. The Draft Act on the Protection and Promotion of Traditional Knowledge (2008): Filling the Gap?

At the time of writing, the finalised version of the draft has just been submitted to the Department of Intellectual Property (DIP) for consideration. Until the draft is proposed to the Parliament for further consideration, the content of the draft will remain confidential. The drafting process can be separated into three stages.

1) Research and information gathering on existing domestic and international TK protection, led by Dr. Tanit Changthavorn;



2) The proposal was then passed on to the field-research team led by Assoc. Prof. Sugunya Sudjachaya<sup>6</sup> to conduct interviews and group discussions with local communities from four main regions of Thailand (North, South, North East and Central);

3) The results of the field research were then passed back to Dr Tanit Changthavorn, who led the team in the drafting of the final Act.

According to Dr Tanit.<sup>7</sup>

*'My draft is called the Draft Act on the Protection and Promotion of TK... The protection covers two aspects: preventing the unauthorised use of TK and the misuse of TK (use in an inappropriate fashion). My draft is different from WIPO's TK model law. Since I don't believe in community right, there is no TK community right in my draft...'*

It is unclear what Dr Tanit meant by 'TK.' If it includes all three elements - 'know-how,' 'TCEs' and 'biological resources,' then it would appear that it is unsatisfactory insofar as it creates overlap with the PVP and APPTMI. Fortunately, one can draw on the fact that Assoc. Prof. Sugunya Sudjachaya is an expert in Thai folklore, to speculate that the main purpose of the draft is to protect

TCEs. In light of this, it is proposed that the title of the draft should be altered to 'the Act on Protection and Promotion of Traditional Thai Cultural Expressions/Folklore' to avoid any confusion with the term 'TK.'

Dr Tanit's disbelief in 'community rights' is likely to attract criticism from local communities, because to propose that all TCEs 'should belong to all Thais' is to overlook the fact that in some cases a community owner may be readily identified (e.g. a hill tribes residing in the North of Thailand). Nevertheless, there is an element of pragmatism behind Dr Tanit's proposition. The implementation of the PVP and APPTMI has found it very difficult to define what 'community' means. Indeed, as Dr Tanit rightly espoused, 'community' is a dynamic concept which changes over time in its components as people do move from one community to another. Thus, it is virtually impossible to derive a suitable single definition for such a versatile concept. However controversial it might at first appear, if lessons from history are of any use, one would be encouraged to endorse Dr Tanit's view that the State may after all be in the best position to look after TCEs.

<sup>6</sup> Thai folklore expert, Thai Language Department, Chulalongkorn University.

<sup>7</sup> Dr Tanit, personal communication. 1/02/08.

It is also pertinent to note that by assigning the responsibilities to the State, the draft effectively adopts a somewhat paternalistic approach to TK protection. At first glance, this appears to undermine the principle of cultural rights and right to self-determination because the ultimate decision would come from the State. Upon careful analysis, however, there is evidence to suggest that human rights and some examples of a 'bottom-up' approach have in fact been incorporated into the draft. As revealed by Dr Tanit:

*'TK does not belong to the State but the States look after it. There will be an expert committee that selects TK to become protected TK. Community participation can be found in several parts of my draft. For instance, any community can propose and revoke the protection of TK on adequate legal basis provided in the law.'*

It is hoped that there would be a government agency set up to look after TCEs. Such a body would, according to Dr Tanit, be responsible for making sure that 'any income generated from the commercial use of TK could be ploughed back into the local community, subject to a funding strategy.' Furthermore, the agency could potentially ensure that that people's right of participation, and right to 'propose and revoke' certain TCEs are properly promoted and respected.

The importance of the draft lies in

its attempt at filling the 'gaps' (i.e. TCEs) in TK protection left open by the PVP and APPTMI, since the PVP and APPTMI only protects 'know-how' and biological resources. For this reason, although it is accepted that there may be a linguistic problem as regards the draft's title, the draft is to be warmly welcomed.

At this point, it is necessary to remind the readers of the objectives of TK protection. It should be recalled that they seek not only to prevent biopiracy, but also to acknowledge TK-holders' rights in the wider socio-economic context (Figure 2). Even if the draft becomes an Act and the previous two laws are implemented properly, they are still unlikely to fulfil this objective. Therefore, the paper will now discuss other factors that must be taken into account.

## PART IV: TOWARDS A COMPREHENSIVE MULTI-DIMENSIONAL APPROACH

### ■ 8. Complementary Social, Economic, Environmental and Educational Policies

It is suggested that no matter how well-established the legal regime for TK protection is, the system will be inadequate if the potential users and beneficiaries have more immediate concerns - for example, chronic poverty levels, ill-health, unemployment, and societal breakdown (Dutfield 2004



p.118). Thus, there are compelling grounds to argue that measures to protect TK need to be implemented with some urgency.

In addition to appropriate socio-economic policies, conserving the environment should also work in sync with the protection of TK (see, for example, the work of the UNDP). As noted in the proceeding paragraphs, this particular approach has been incorporated into the PVP where there are provisions for the conservation of wild herbs, and in this respect, the Act is to be commended. Other environmental laws and policies such as the Forest Act B.E. 2484 (1941), the Act on the Preservation and Protection of Wild Animals B.E. 2535 (1992), and environmental education are also likely to be beneficial to TK. Furthermore, owing to its close link with the environment, TK has been shown to be crucial in sustainable and locally-based development (see, for example, Sillitoe et al 2005). While these strategies may not directly protect or promote TK per se, they can, together with other law and policies, generate an optimal setting in which TK can be protected, sustained and promoted.

Similarly, educational policies can be used to preserve and promote TK. For example, TCEs such as traditional dances and medical knowledge can be integrated into school curriculum so that the students not only have a chance to learn, but also to pass on TK to the next generation. Equally,

educational policies can be used to raise the public awareness of intellectual property law.

### ■ 9. Regional and International Cooperation

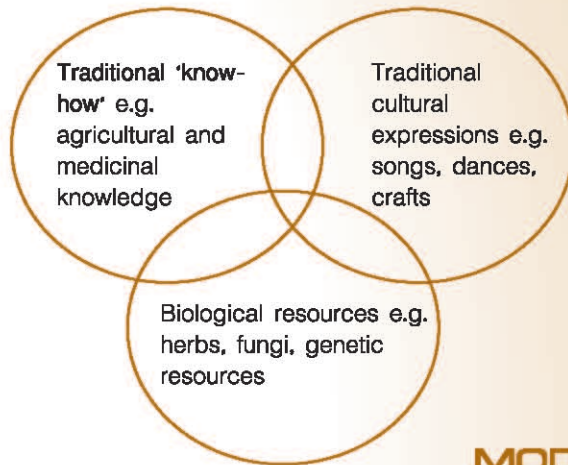
It is pertinent to note that even if a perfect national sui generis model were in place, it still would not have extra-territorial effect. In short, TK right-holders would not be able to secure similar protection abroad and exploitative behaviour in other countries would go on undetected. It is therefore proposed that a comprehensive strategy for protecting TK should consider the community, national, regional and international dimensions. This is essentially because the stronger the integration and coordination between each level, the greater the likelihood of its overall effectiveness.

Regional cooperation may be particularly useful in such cases where certain types of biological resources do not exist solely in one jurisdiction but in a group of countries with similar climate. Kwao Krua, for example, can be naturally found in Burma and Thailand. In light of this, cooperation among Thailand and Burma would certainly provide a more satisfactory protection for Kwao Krua, compared to Thailand's sole protection regime.





Figure 1: TK Diversity



## MODEL SUMMARY

Figure 2: Threats

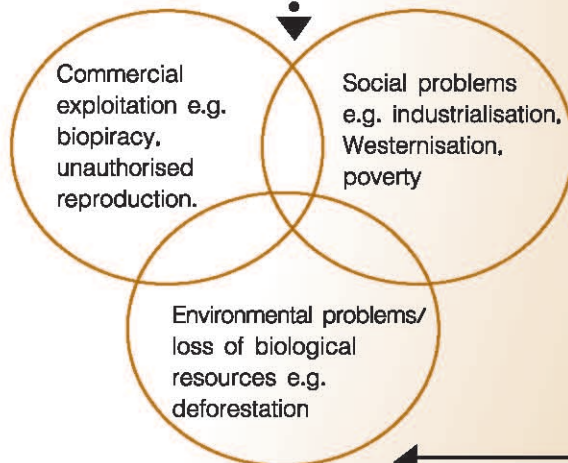
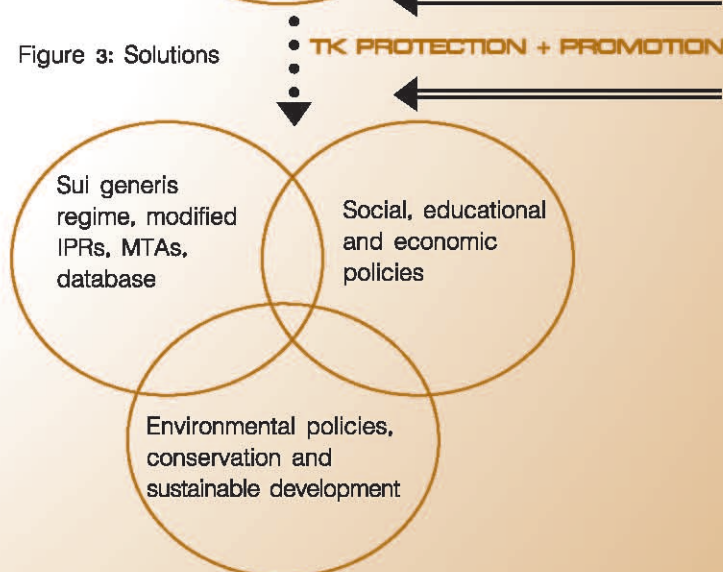


Figure 3: Solutions



- Respect for human rights (e.g. cultural rights and rights to self-determination)
- National economic interests
- Community-based approach (bottom-up: participation)
- Fulfilling international obligations: implementation of TRIPS, CBD and other relevant agreements
- Regional and international cooperation (e.g. ASEAN)

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