



LAW  
ENVIRONMENT AND  
DEVELOPMENT  
JOURNAL

# LEAD

FRANTZESKA PAPADOPOULOU, THE PROTECTION OF TRADITIONAL  
KNOWLEDGE ON GENETIC RESOURCES (EDWARD ELGAR 2018)

*Reviewed by* : Shachi Singh, Assistant Professor, Faculty of Law, University of Delhi, India

BOOK REVIEW



VOLUME  
15/0

*LEAD Journal (Law, Environment and Development Journal)*  
*is a peer-reviewed academic publication based in New Delhi and London and jointly managed by the*  
*Law, Environment and Development Centre of SOAS University of London*  
*and the International Environmental Law Research Centre (IELRC).*  
*LEAD is published at [www.lead-journal.org](http://www.lead-journal.org)*  
*[info@lead-journal.org](mailto:info@lead-journal.org)*  
*ISSN 1746-5893*

## BOOK REVIEW

# RANTZESKA PAPADOPOULOU, THE PROTECTION OF TRADITIONAL KNOWLEDGE ON GENETIC RESOURCES (EDWARD ELGAR 2018)

*Reviewed by* : Shachi Singh, Assistant Professor, Faculty of Law, University of Delhi, India

This advance version of the book review can be cited as  
Book Review: Frantzeska Papadopoulou, '*The Protection of  
Traditional Knowledge on Genetic Resources* (Edward Elgar 2018)',  
15/0 *Law, Environment and Development Journal* (2019), p. 15-21,  
available at <http://www.lead-journal.org/content/19015.pdf>

This book can be purchased directly online here.

**Frantzeska Papadopoulou**, *The Protection of Traditional Knowledge on Genetic Resources* (Edward Elgar 2018)

Traditional Knowledge (TK) is a subject matter which cuts across different spheres of legal regulation such as international legal framework on conservation of biological diversity, intellectual property rights, human rights, property, plant variety protection etc. Given its very nature, Traditional Knowledge (TK) poses serious difficulties in framing as well as harmonising existing norms pertaining to different fields of law in order to give effect to its smooth regulation. The list of stakeholders includes, researchers, multi-national companies including pharmaceuticals and cosmetic companies, states, indigenous and local communities (ILCs), common people, *inter alia*. In view of the rising awareness amongst different societies about sustainable ways of living, traditional knowledge, as a concept has gained prominence as a matter of economic and ethnic value as well as pride.

The first question that comes to one's mind in relation to TK probably is, regarding the essential ingredients for any knowledge to be referred as traditional. In fact, the international experts working on TK have been bogging their minds in order to arrive at a comprehensive definition so as to cover all its characteristics.<sup>1</sup> This is primarily the concern that has been expressed by the author throughout the book i.e. the issue of entitlement that must be conferred on TK for ensuring its adequate protection and securing the rights of concerned stakeholders including indigenous and local communities who have been conserving and enriching this ancient know-how. Academicians, scholars, researchers, legislators as well as international experts working towards protection of TK must initially address the basic issue of entitlement with respect to TK. In this regard, this collection of information and its jurisprudential analysis is a must read.

The methodology adopted by the author for writing the book is two layered. The outer layer corresponds to

chapterization which is sequential in nature. In the introductory chapter, the author invites the readers to understand the basic concepts and the evaluation framework devised by the author. Following which the second chapter provides for an in-depth discussion on legal status of Traditional Knowledge on Genetic Resources hereinafter referred to as TKGR, its commodification and existence of a mosaic of international agreements for its protection. Quite naturally, the next chapter provides its readers with a detailed analysis of two prominent international legal structures i.e. the CBD framework and patent system in relation to protection of TKGR including the regional model laws and national legislations. The succeeding chapter on bioprospecting agreements exposes the inherent weaknesses of this bilateral system by citing various key agreements on access and benefit sharing available for public scrutiny and simultaneously the author expresses her concern that very few of such agreements are actually available in public domain for one or the other possible reasons. The book in its concluding chapter completes the circle by bringing back the reader to the introductory remarks made by the author. The overall point which the author is primarily seeking to make by writing this book is that the endeavour of this book is not to propose the best alternative protection system for TKGR but provide for an alternative form of reasoning in the discussion on possible new entitlement for ensuring protection of TKGR.

The inner layer corresponds to the internal structure of a chapter in the book which is again sequential in nature and is threefold; firstly, the author acquaints its readers with the basic descriptive information on the issue; secondly, she brings into picture the lacunas or difficulties within the current protection systems of TKGR through varied illustrations & examples and thirdly, the chapter sets specific parameters to evaluate the efficacy of key aspects of the legal frameworks on TKGR.

In the opening chapter, the author expresses her apprehension with respect to the current regulatory regimes on TK. Specifically, the book mentions that TKGR is subject to a complex regulatory regime concerning multiple legal institutions with overlapping rules and therefore, the legal regime related to protection of TKGR remains unclear.

The book has been structured in a simplistic manner wherein the succeeding chapter quite logically follows

1 WIPO Report on Fact-Finding Missions on Intellectual Property and Traditional Knowledge (1998-1999), Intellectual Property Needs and Expectations of Traditional Knowledge Holders < [www.wipo.int/edocs/pubdocs/en/tk/768/wipo\\_pub\\_768.pdf](http://www.wipo.int/edocs/pubdocs/en/tk/768/wipo_pub_768.pdf) > accessed 18 October, 2018; See, Traditional Knowledge < <https://www.wipo.int/tk/en/tk/> > accessed 21 October, 2018.

its preceding chapter. The book is divided into six chapters wherein the link between the introductory chapter and the concluding chapter is quite evident.

Traditional Knowledge could in simplest terms be described as our realization of the close association of biodiversity and human body. Based on numerous trial and errors, this knowledge was arrived at over several centuries and has been conserved by generations after generations.

In modern times, it is being utilized across various commercial sectors such as pharmaceuticals, cosmetics, food industry, textile industry and several other areas. The noble concept of climate justice, sustainable ways of living and conservation of biological diversity has raised awareness amongst consumers to consume products which are direct derivatives of components of nature. This rise in demand for natural products has driven the manufacturers and scientists to find out various ways in which natural products of various kinds may be derived out of biological resources. The author points out that the use of TKGR has the potential to increase efficiency in screening plants for medicinal properties by more than 400 per cent (p. 2).

After a brief explanation on international legal framework regulating the status of TKGR, this book primarily investigates the need of a valid recognition of TKGR and further tests a number of variations of possible legal frameworks for its protection.

The author sets the evaluation framework for testing several available forms for protection of TKGR (p. 3). This evaluation framework constitutes of a combination of the Ronald Coases's theorem on economic efficiency and the John Rawl's theory of equity and justice. In this manner, she has provided an inter-disciplinary approach of testing the suitability of different forms of legal title that may be accorded to TKGR.

The author acknowledges the fact that TKGR has been playing significant role in the lives of people since ancient times. She has extensively researched on specific instances in the evolution of human history and shown the manner in which such instances have influenced international relations. In that context, the text traces the manner in which white colonisers made a move from gathering material wealth from their

respective colonies to collecting and sending biological resources to their home country (p. 27).

In the above-mentioned context, the book discusses the laws that have regulated access to TKGR from the pharaohs of Egypt to the modern era of bioprospecting wherein multinational companies are hiring scientists and experts on several key biotechnology development projects.

Following this in-depth discussion, the author divides the development of legal framework on TKGR into three phases: the first period begins from ancient years through colonization to FAO (Food and Agriculture Organization of the United Nations) Global Plan for plant genetic resources in the 1980s wherein she draws a comparison of the legal status of TKGR with that of *terra nullius*. The second period begins in the mid-1980s with FAO International Undertaking on Plant Genetic Resources (p. 29). The legal status accorded to TKGR under this international instrument was that of the 'Common Heritage of Mankind' wherein the access was free and therefore the issues of biopiracy including piracy of TKGR is found to be rampant. The developing part of the world which is also the home of large share of biodiversity on this Earth grew sceptical of this system and expressed its concern at the United Nations platform. This concern translated into a treaty i.e. the Convention on Biological Diversity, 1992 hereinafter referred to as the CBD. At this juncture, began the third period with the coming into force of the CBD and IPR Conventions mainly the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement which as very rightly pointed out by the author changed the nature of TKGR from a heritage to commodity and resulted in propagating the concept of commoditisation of TKGR both in theory as well as practical transactions (p. 50).

In expounding the legal status of TKGR, the author has extensively explored and explained the interface between relevant international legal instruments including International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), the Stockholm Declaration, the TRIPS and the Nagoya Protocol on Access and Benefit Sharing to CBD (Nagoya Protocol) which recently came into force.

This book truly is an endeavour where one could find historical as well as socio-legal analysis of all the

international legal instruments including those which might have a possibility of influencing the legal status of TKGR only tangentially. Therefore, this book provides one of the most comprehensive analysis on TKGR which could be found in any written text today.

The discussion in the book then in an obvious sequential manner, proceeds on major international and national level legal structures regulating trade of TKGR. This discussion is very well placed as the cornerstone of both the CBD as well as the TRIPS framework is their dependence on national level implementation measures. The examination of legal status of TKGR and its protection demands a further examination of domestic as well as regional legal frameworks on safeguarding TKGR.

In this descriptive analysis of the implementation initiatives under the broad framework of the CBD, the author classified these implementation initiatives under two categories: firstly, regional implementation initiatives such as Organization of African Union (OAU) Model Law, the Andean Community Decisions, the ASEAN Agreement and secondly, the national legal frameworks which put forth diverse protection schemes available across the world with respect to regulation of TKGR. This study expressed in the third chapter of the book includes a note on the Peruvian and Brazilian legislation. Papadopoulou has been careful in choosing the national jurisdictions on which she has discussed in her study. The justifications for choosing the countries in this regard seems to be based on one or the other following grounds: richness of a country in biodiversity and associated traditional knowledge, their role in negotiation of agreements under the CBD framework, institutional and financial capacity of a country to regulate Access and Benefit Sharing (ABS), their track-record of conservation, their potential of use and their technological advancements to utilize genetic resources.

This piece of literary work is distinct from other available literatures on TKGR especially because the author by citing several instances creates a space within the minds of its readers to be able to appreciate the issues that are still left unaddressed and unresolved as far as this subject matter is concerned.

In line with the above statement, the author in this section of the book draws an inference on how the

documentation and disclosure of TKGR might lead to possible negative consequences for third parties' acquisition of IPR as well as rights of indigenous and local communities in protecting their culture and resources. This is indeed a very well thought piece of writing which binds its readers to utilize their analytical minds and to appreciate the fact that such documentation might lead to negative impact on protection of traditional knowledge itself. The author rightly phrases this concern wherein she writes 'no one wants to pay for something that is available to the public' (p. 36, 37).

Very few literatures focus on such negative consequences as mostly it is the positive aspects of documentation that are known to the scholars let alone the layperson. Therefore, the author seems to be successful in maintaining the neutrality and objectivity in her writing and providing voice to different perspectives on the issue.

The disclosure and Prior Informed Consent requirements (PIC) which is a point of compromise as mentioned by the author between the objectives of the CBD and the current Intellectual Property (IP) system is the most debated and discussed matter amongst states precisely between developed and developing countries at various international fora including the ongoing discussions at the WIPO.<sup>2</sup>

Elaborating on this key interface between the Intellectual Property (IP) and Access and Benefit Sharing (ABS), the book reveals the difficulties that would arise out of a legal system which would require evidence of PIC. Again, in this respect, the book is different from usual writings as it provides a different perspective of understanding the link between IP and ABS. The issue seems to be a bit technical to comprehend but the manner in which the author has put forth her imagination using various illustrations which might arise out of requirement of disclosure requirements or designating patent offices as check points under the domestic laws in line with the Nagoya Protocol simplifies those technicalities underlying the ancillary concepts to TKGR.

---

2 Paul Kuruk, 'Regulating Access to Traditional Knowledge and Genetic Resources: The Disclosure Requirement as a Strategy to Combat Biopiracy' (2015) 17 *San Diego Int'l L.J.* 1.

Her reliance on illustrations invites the readers to imagine the possible consequences of a system requiring evidence of PIC. For instance, she writes that if designated as check points, *patent offices will have to examine and control compliance with foreign law...On the other hand, the Country of Origin could reach decisions that would be applicable as 'acts of state' and could not be reviewable by the administrative body granting the patent (p. 139).*

Such examples in turn aid the readers to apply their analytical skills to appreciate Public and Private International Law issues that might emanate from the norm of disclosure requirement and then be able to evaluate as to what could be the most appropriate way forward to regulate the TKGR trade ensuring compliance with the domestic regulations of provider countries on access to TKGR. The flow of this illustrative writing opens up the minds of its readers to draw an analogy between the key issues in the context of trade of TKGR and the key issues in the trade of genetic resources facing both, the provider countries and the user countries.

Further, the author explores the compatibility of a disclosure and PIC requirement with relevant international frameworks including Trade Related Aspects of Intellectual Property Rights (TRIPS), International Convention for the Protection of New Plant Varieties (UPOV) and the Patent Cooperation Treaty (PCI). Several nations both as a regional block as well as at individual level have made attempts to provide for disclosure requirements in their domestic IP and Biodiversity Laws. In this regard, this book is a collection of descriptive information about TK which is rare to find at one place.

After a detailed description on regional and selected national disclosure requirements, the text subsequently evaluates these provisions on the parameters of equity and efficiency. It is inferred by the author that such disclosure requirements under national legislations are able to contribute towards the objective of conservation of genetic resources and protection of TKGR only in a limited way due to their lack of uniformity. Therefore, she opines that the best way forward would be harmonisation of laws at the international level and to set common standards with respect to the scope and legal impact of the disclosure requirements. Over all, this book addresses and

explores each of the possible perspectives in relation to the measure of disclosure requirements.

Further to this detailed analysis on possible impacts of enshrining disclosure requirements under national and regional regulatory framework on TKGR, the author points out at the lack of a comprehensive international agreement on a *sui generis* system for protection of TKGR and refers to this lack of consensus as a major weakness on the part of the international community negotiating on the framework of norms on TKGR.

Similar to the manner in which the author has analysed the pros and cons of enshrining a disclosure requirement within various legal frameworks, she describes the OAU Model on Community Rights (p. 157) and Brazil's legal framework on rights of indigenous people, *inter alia*. Following which such *sui generis* systems is evaluated on the parameters of efficiency and equity. As evident, the evaluation of disclosure requirements and *sui generis* systems of protections on the parameters of equity and efficiency follows their respective descriptive analysis.

Succeeding the elaborate discussion on international, regional and domestic legal frameworks in relation to TKGR and an in-depth analysis in an effort to identify the legal status of TKGR, is the study of bioprospecting agreements and the protection that such agreements accord to TKGR.

The analysis of bioprospecting agreements has been classified by the learned author in two parts: firstly, bioprospecting agreements prior to CBD era and secondly, bioprospecting agreements in the post CBD era. Coming into force of the CBD has been taken to be the dividing line as it is the first major agreement which provides international recognition to Traditional Knowledge and made a significant mark by providing sovereign rights to states over their resources including biological resources.<sup>3</sup>

Similar to the previous portions of the book, the discussion on bioprospecting agreements is comprehensive and covers a discussion on several

---

3 The Convention on Biological Diversity, Art 3  
< <https://www.cbd.int/> > accessed 24 September, 2018.

instances of such agreements as well as a doctrinal analysis of various essential components of such bioprospecting agreements.

With respect to the protection of TKGR by means of bioprospecting agreements, the author presents the case studies such as the ICBG Project in Mexico with a different perspective in order to establish the point that there is a lack of certainty and unpredictability as to the issue of protection of TKGR considering the difficulties which the parties come across in enforcing such agreements.

The inference drawn by the author from the extensive study on bioprospecting agreements is that the protection of TKGR by means of such contracts is restricted to trivial matters such as collection fee and other costs of providing for the biological material, and she observes that, such contracts shall however, continue to play a substantial role in the trade of TKGR (P. 203, 204).

The title of the fifth chapter "*To Protect or Not to Protect*" is quite enticing and unusual which creates curiosity in the minds of its readers. In this way, through this piece of literary work, the author has created a space for the inquisitive minds of her authors to indeed flow in an unrestricted manner and reasonably foresee the practical impact of different forms of entitlements which have either been bestowed on TKGR or which could be bestowed on it based on the evaluation of such available forms of protection for TKGR on the parameters of efficiency and fairness.

The author explores that whether a property rights regime or whether other alternative methods of protection namely liability rights or reward systems are appropriate forms of safeguarding TKGR. This chapter provides a jurisprudential as well as economic analysis of evolution of property rights and such multifaceted understanding of property rights as a concept as well as in relation to its applicability to TKGR is a rare read.

Such a jurisprudential discussion seldom precedes the discussion and negotiations on framing of appropriate norms, guidelines and policies at different international fora working on devising appropriate systems for safeguarding TKGR and rights of its holders. It is often neglected by states when framing laws to protect TK within their jurisdictions. This study must be the starting point of the journey of framing appropriate

norms for protection of TKGR which in turn would necessarily be based on the choice of appropriate legal entitlement for TKGR. It is indeed a path breaking piece of jurisprudential-economic study on exploring several alternative forms or rights or entitlements for protection of TKGR.

The concluding chapter is titled '*Where Traditional Knowledge meets Modern IPRs*'. The link between an ancient value which was once given the legal status of Common Heritage and is today considered to be a commodity & IPRs which are of recent origin has been elaborated upon in detail by the author.

She opines that the assumption of contractual arrangement based on which biodiversity conservation policies were framed has sadly failed to deliver expected results. The fact of unequal bargaining position of the holders of TKGR and bio-prospectors is one of the major challenges which hinder the possibility of reaching fair and mutually beneficial agreements. The coherence issues between CBD and TRIPS has been discussed extensively in the chapter.

Further, the author expresses her concurrence on the fact that the legal status of certain natural resources is often exposed to complications of being covered under different regulatory regimes mainly because they exist extra-territorially or are found in the territorial waters of different states. The author in this context mentions the case of marine genetic resources (MGRs) which occur in high seas and points out that *the solving the equation of ABS of resources that are found in several jurisdictions is as complicated for MGRs as it is for TKGR*. She cautions that the interface between different international conventions must be taken into account before elaborating specific rights in relation to such resources. Similar analogy could be drawn in case of TKGR as well.

The author then comes back to the discussion on the evaluation framework based on Coasean Efficiency and Rawlsian Fairness mentioned in the opening chapter of the book in context of several form of TKGR protection; and opines that it cannot be claimed that the international regulatory framework on TKGR is inconsistent with these two concepts mentioned above.

The focus of the book is not to provide a new or a fine stitched entitlement for TKGR but it does opens

up the minds of its readers to explore the alternative entitlements that should be discussed at international fora. In fact, this study should act as the initial point of the sessions relating to protection of TKGR at several international platforms working on this issue.

After providing an in-depth understanding of entitlements focussing on property rights, this study leaves the discussion on the question as to what would be the most suitable form of TKGR protection as open ended for the readers to ponder upon. It provides for a caution that an approach of '*autopilot type procedure or one size fit all kind of method*' including the usual practice of copying and pasting from other sui generis rights models must be avoided when it comes to elaborating upon protection of TKGR. To sum it up, this book tests different possible protection frameworks of TKGR and this theme makes it one of the most relevant read of its time.

*LEAD Journal (Law, Environment and Development Journal) is jointly managed by the  
Law, Environment and Development Centre, SOAS University of London  
[soas.ac.uk/ledc](http://soas.ac.uk/ledc)  
and the International Environmental Law Research Centre (IELRC)  
[ielrc.org](http://ielrc.org)*

