encounter between peoples of developing countries and the international intellectual property system.

Conclusion

Intellectual property rights have been extended to developing countries in an unbroken historical chain lasting over 500 years. Over the course of this period, international law has yielded doctrines that have been instrumental to the political independence of these countries and, to a lesser extent, through human rights law, political, social, and economic guarantees for the people groups and individuals of these countries. The manifestation of economic guarantees remains an issue in international law that is contested in terms of which particular mix of market and other institutions, particularly legal, will produce optimal results for development. In the highly technological age of the twenty-first century, the regulation of intellectual property occupies a crucial role in this debate. The narratives of developing country participation in the global system all seek to redeem the system from its own problematic history by restructuring terms of engagement between developed and developing countries to facilitate development objectives. To do so effectively will require as a minimum that the right of self-determination be considered as a means to re-engage sovereign responsibility for creating and enforcing domestic innovation systems conducive to the interests, cultural claims, and economic goals of the domestic polity. Such systems might look exactly like modern intellectual property regimes, or not. The crucial issue is to hold states and the global community accountable for their claims, via the TRIPS Agreement, that development goals can be pursued effectively within a harmonized system of mandatory rights. In the absence of evidence to support the success of the TRIPS Agreement as a development tool, a human right to own the fruits of creative enterprise cannot justify the social and economic costs of underdevelopment associated with insufficient access to existing technology and the failure of policy mechanisms to encourage domestic innovation.

Introduction

The origin of the link between traditional knowledge (TK) and biodiversity can probably be said to lie in a US proposal at the Governing Council of the United Nations Economic Programme in 1987 for a comprehensive treaty on the conservation of biodiversity.¹ That proposal initiated a sequence of events

¹ K. ten Kate and S. A. Laird, The Commercial Use of Biodiversity (Earthscan, 1999).
that ultimately led to the Convention on Biological Diversity (CBD) being opened for signature in 1992.

The CBD established a clear link between TK and biodiversity, most notably in Article 8(j), which creates obligations to preserve and maintain TK that relates to preservation and sustainable use of biodiversity. Since the CBD came into operation, an ever-increasing range of actors and policy networks have become involved in the issue of the protection of TK. There has been an explosion of meetings, dialogues, workshops and policies on TK. Even more impressive has been the rapid production of regulatory norms at national and international levels. These norms range from hard law (for example, national statutory access regimes for biological resources and the protection of TK) to soft law (for example, model laws) to non-law forms (for example, codes of ethics and protocols). In a decade or so, TK has come from policy obscurity to being an object of plural regulation.

Within the World Intellectual Property Organization (WIPO) an Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) was established in 2000. The calls by member states for the IGC to draft and present to the WIPO General Assembly a legally-binding international instrument to protect genetic resources, traditional knowledge, and folklore have led to a set of draft 'Revised Provisions for the Protection of Traditional Knowledge' (Revised TK Provisions).

The Revised TK Provisions could clearly form the basis of a treaty. But treaties may also arrive on the international scene as dead letters, their promised benefits never being seen. There is also the danger of symbolic regulation. A concerned public is assured, by the passage of fine-sounding legislation, that the problem in question has been dealt with; as a result public attention moves on to the next drama; in reality, the legislation (for one reason or another) does nothing to solve the problem. Intellectual property treaty law has its historical examples of symbolic regulation. In the 1960s the demands of developing countries for a better deal on copyright and textbooks eventually led, in 1971, to an Appendix to the Berne Convention for the Protection of Literary and Artistic Works which contained special provisions regarding developing countries. These provisions did little to help developing countries solve the problem of gaining access to textbooks at affordable prices. Similarly, the signs are that the recent decision of the WTO on the implementation of paragraph 6 of the Doha Declaration, concerning access to medicines by countries that lack pharmaceutical manufacturing capacity, will do very little in practical terms to solve those capacity problems.

The purpose of this chapter is to suggest that, if a treaty on TK is to avoid the fate of becoming a failed promise, it has to be part of a larger regulatory strategy, a strategy that the treaty can itself help to coordinate. TK poses enormous challenges for policy and regulation because it is an intimate form of knowledge that is tied to people and localities and often relies on non-written forms of transmission and reproduction. Once information is captured through some process of codification (for example, a births and deaths register, patents register, a manual, etc) it becomes much easier to regulate for its preservation and use. Much of TK is not recorded and registered. It is a matter of debate as to whether it should be. Its continued existence is dependent on the survival of local cultural practices in a world where markets operate to commodify and standardize assets so that they can be sold to those who value them the most in economic terms. The tendency of markets to commodify and standardize as part of the process of achieving economies of scale means that markets are generally better at eliminating local customs than preserving them.

Drawing on the theory of responsive regulation and the regulatory pyramid, this chapter outlines the elements of a responsive regulatory response to TK and suggests a role that a treaty might play. In particular, the chapter argues that a treaty should concentrate more on the coordination of the enforcement of existing norms than on the setting of new standards. Over the last decade or so the proliferation of regulatory norms for TK has been remarkable, but the monitoring and enforcement of these norms has not received much attention. Yet it was enforcement that was the raison d’être of the Agreement on the Trade-Related Aspects of Intellectual Property Rights.
Chapter 11: Protecting Traditional Knowledge

Intellectual Property Rights (TRIPS). It was the desire of US companies to be able to enforce international obligations with respect to intellectual property that led the US, in the 1980s, to link intellectual property to the trade regime. Following this enforcement theme, the chapter argues that the key to enforcement in TK lies in the creation of an international enforcement pyramid. The coordinated use of this pyramid requires an international agency. The chapter suggests one possible model for such an agency in the form of the Global Bio-Collecting Society.

Part I Regulation, Responsive Regulation and Networks

Regulation used to be thought of as an activity carried out by governments using the tools of law. This traditional command–control model of regulation has been replaced by a multidimensional model which recognizes that non-state actors and non-legal norms also regulate. At the core of the multidimensional model of regulation is the view that regulation is 'the intentional activity of attempting to control, order or influence the behaviour of others'. So, for example, when a multinational threatens a government with the closure of a plant employing many people unless it receives some important economic concessions, and the government complies with its demand, the government is being regulated by that multinational. Confining the definition of regulation to the agency of states using law does not change the empirical reality that control and influence in the world has many agents and methods. Studying the intentional use of normative mechanisms by different actors lies at the heart of modern regulatory scholarship.

One distinctive approach to regulation is responsive regulation. Responsive regulation is based on the idea that regulatory responses must take into account the motivations and conduct of those being regulated, and these must guide the

degree of intervention by the regulator. Its most distinctive idea is that the tools of regulation can be ordered in a way that enhances self regulation, thereby reducing the actual need for governmental coercion, while at the same time retaining it as an answer for some kinds of regulatory problem. Known as the enforcement pyramid, this approach always begins with persuasion and dialogue. If this does not work, the regulator moves up the pyramid, using responses that are increasingly severe. Creating an international enforcement pyramid for TK is key to a strategy of regulation for TK, because the actors that are most interested in the enforcement of ownership norms concerning TK are also likely to have the weakest capacity to take an enforcement action of some kind. For example, Indonesia, a country of some 200 million people and rich in TK, has approximately 40 registered patent attorneys, with only about ten of those having a full practice. An indigenous group that was seeking advice on a matter related to TK and patents would find it difficult to take the first basic step of finding someone in Indonesia that could provide advice and expertise. Filling this kind of radical capacity deficit represents the next phase of protecting TK.

The example of the Indonesian capacity problem could be solved if the indigenous group gained access to networks that had the expertise and technical competence to solve patent-related problems. Access to networks, as a means of increasing capacities and power, has become a key theme of social science theory. Increases in power occur when individuals enrol others with capacity and resources to help them achieve a goal. Power is less a matter of sovereign command over others, and more a matter of building a network of agents willing to share resources and information to achieve a common purpose. The potentially serious problems of coordinating a large network over time and space have been greatly reduced by information technology. Recently, some have argued that even greater gains in power and capacity can be obtained by tying existing networks together—the networking of networks. So, for example, a network of computer software companies, of the kind led by the Business Software Alliance, can do a lot to further an agenda of stronger enforcement of intellectual property rights. But even more can be accomplished if they join

12 Ibid.
13 The approach is developed in I Ayres and J Braithwaite, Responsive Regulation: Transcending the Deregulation Debate (Oxford University Press, 1992).
with other networks of film studios and recording companies to persuade the US government to make the enforcement of intellectual property rights a global priority. When already powerful networks join forces regulatory achievements on a global scale can be achieved.

The strategies of building networks, enrolling others into those networks and networking networks are also available to weak actors. In fact, in the modern world of networked governance these strategies are the only means by which weak actors have a chance of achieving their goals. By definition they lack capital or other sources of power that enable them to act alone. Drawing on the insights of networked governance, this chapter shows how capacity deficits in the enforcement of TK can be overcome using a networked regulatory pyramid.

There is another reason why this chapter argues for an approach based on networked responsive regulation for TK. Responsive regulation is an approach that places great emphasis on understanding the context of a regulatory problem, and the forms of self-regulation and market structure that have evolved in a given business sector. Understanding the customary base of a given sector of business regulation is fundamental, because regulation that fails to engage with business is likely to fail altogether. This emphasis on context and custom is crucial for the successful regulation of TK. It is simply a fact that there is enormous cultural and customary diversity amongst the owners of TK. This means that any given problem over the use of TK is likely to be a stand-alone problem because the customary base of the TK in question will be unique. As a WIPO fact-finding mission observed 'traditional societies often have highly-developed, complex and effective customary systems for TK protection'. The sheer diversity of customary systems for TK means that each problem relating to the use of TK will need an individually crafted solution that is responsive to the context of that particular problem. Under a responsive regulatory approach the specific customary institutional base of TK would be the natural starting point for solving individual problems.

19 For some sense of the huge variety of customary law in general see A Dutescu Remete and A Dutescu (eds), Folk Law: Essays in the Theory and Practice of Lex Non Scripta, Vols 1 and 2 (University of Wisconsin Press, 1994).

Part II Do We Need a Treaty on TK?

Treaties are costly to negotiate. They may also end up as dead letters. In the case of a treaty on TK it is worth drawing attention to Paul Heald's observation that there is an emerging consensus amongst scholars around the world that there is too much intellectual property protection. General scepticism about the value of more and more intellectual property protection does not necessarily lead to a case against a treaty on TK, but it does at least raise the issue of whether a treaty is needed, and the closely related issue of what form the treaty might take. Paul Heald's point is part of a larger argument about the nature of intellectual property policy in the international arena. New forms of intellectual property are much more the product of the politics of rent-seeking than they are the product of careful social welfare analysis.

Applying the economics of intellectual property protection to TK is anything but straightforward. To begin with, TK is the paradigmatic example of group innovation that takes place over time. Well and truly before anybody thought of the term 'sequential innovation', indigenous communities were engaged in a collective process of incremental improvement of their various techniques and products. Group innovation does not fit with the assumptions of conventional models of intellectual property protection. Conventional intellectual property systems operate on the assumption that it is possible to identify an individual or individuals who can claim clear title to an innovation that itself can be clearly demarcated. Once innovation is located in groups and complex networks, and the innovation itself takes the form of a living body of knowledge, rather large entitlement and demarcation problems start to surface. It becomes difficult, for example, to decide which individuals can claim ownership, what exactly is the subject of ownership, and how, if at all, ownership is extinguished. These problems exist for all forms of group innovation, but they are especially pressing for TK innovation because groups are so dominant in the innovation process.

There is another line of economic thinking that points away from an intellectual property-based model of TK protection. One of the important observations that came out of WIPO's fact-finding missions was that there was a great

deal of uncertainty about how to value TK. This uncertainty is especially
salient in the case of TK, because TK, if it is used by a company, will most likely
be used as a further input into research by that company. At the time the knowl-
dge is disclosed or the genetic resource handed over to a company, the value
of that information cannot be fully known by either party. As Kenneth Arrow
noted in his seminal discussion of market failure in innovation markets ‘the value
of information for use in developing further information is much more conjec-
trual than the value of its use in production and therefore much more likely to be under-
estimated’ (emphasis added). The possible implications of uncertainty over the economic value of TK are
considerable. If developing countries commit themselves to a treaty that
significantly raises the costs of TK to companies, the value of which is already
uncertain, then the effect will most likely be to dampen demand. This is par-
ticularly so if there are less costly substitutes available (for example, combina-
torial chemistry, searching in non-member countries, exploring microbiological
diversity in unregulated areas, etc). The effect of a treaty, therefore, might be to
discourage the commercialization of TK. WIPO’s fact-finding mission suggests
that at least some indigenous groups would be happy with this outcome, but
clearly this would not meet the desires of the countries that are members of
the Megadiverse Group. These countries see important commercialization possi-
bilities in the field of TK.

Economic analysis can provide some insight into the costs and benefits of a
treaty-based approach to TK, but cannot itself answer the question of whether we
ought to protect TK. This, in the final analysis, is a matter of moral argument.
However, to some extent states may already be locked in to more concrete action

on TK as a result of the web of international human rights standards that have
emerged in treaty law, or through state practice or activity on this topic in inter-
national organizations.

There is increasing evidence that TK is linked to a very obvious human rights
issue—the survival of TK holders. A Composite Report in the CBD points out
that in very many areas of the world indigenous groups are the victims of
national governments rather than their partners:

The report on Australia, Asia and the Middle East draws attention to the problem of
persecution and lack of recognition of indigenous peoples, and other traditional
knowledge holders, as one of the main causes of traditional knowledge loss.

There are similar kinds of observation about other regions of the world. The
Composite Report then goes on to make a fundamental observation about
traditional knowledge:

[A]ccess to the land upon which traditional knowledge is based, together with the
opportunity to practice it, is paramount for retention of traditional biodiversity-
related knowledge.

Beneath the complexity of protection for TK there are two basic issues that
have to be confronted and usually are not. First, protection for TK cannot be
separated from human rights protection for indigenous peoples. Second, the pro-
tection of TK is inextricably linked to protection of land rights of indigenous
people. These two issues are fundamental, and yet most of time they are ignored
by a technocratic discourse aimed at developing models of protection for TK
that treat TK independently of its holders and its links to land and territory.
The drive by government policy makers to encourage the documentation and
codification of TK, thereby opening up the possibility of it becoming an asset
that can be protected independently of those who produce it, takes on sinister
connotations. Little wonder that many indigenous groups are suspicious and
distrustful of the documentation drive.

The answer to our question of whether a treaty on TK is needed is yes, because
such a treaty can help to strengthen the protection of the human rights of TK
holders. The protection of TK has to be responsive to the values and practices
of TK holders. The advantage of using a treaty to constitute such a regulatory

26 See para 1 of the Cancun Declaration of Like-Minded Megadiverse Countries.
strategy is that treaties bind signatory governments. More importantly, a framework treaty that articulates general principles may evolve over time into a powerful international regime with a high rate of compliance. Using framework treaties to build a regulatory strategy is an option that weak actors need to take seriously. There are many examples of treaties that begin as ‘vague and platitudinous’ and end up as highly specific and with an enforcement regime. Many treaties in fact disappoint the aspirations of their original architects, but then over time, as opportunities and state groupings change, such treaties may evolve into something of genuine significance.

Obviously, a framework treaty is the first critical step in this process because it creates the ‘contracting space’ for the evolution of more specific and enforceable obligations. Importantly, the WIPO Revised TK Provisions contain a set of comprehensive principles that could easily be incorporated into a framework treaty on TK. The globalization of a regulatory regime usually begins as a contest of principles in which different actors push in various ways for abstract principles that underpin the evolution of rules. Principles, as it were, lure parties into a process of adjustment and compromise. The principles in the Revised TK Provisions have been refined through WIPO’s consultation and consensus approach and so form a natural starting point for inclusion in a framework treaty.

TK is an area that is characterized by radically different perceptions by actors as to what is or is not a problem, fragile alliances, and a diversity of actors with different values and goals. An obvious example of radically different perceptions is the long-running debate between developed and developing countries over the relationship between TRIPS and the CBD which started in the WTO with the review of Article 27.3(b) of TRIPS. Some groups see a need to harmonize the two agreements in order to avoid conflict, while others see no conflict in the first place. Fragile alliances beset the TK issue. Developing country governments that advocate strong TK protection are also sometimes the same governments that are named by NGOs like Human Rights Watch for violations of the human rights of indigenous groups, especially in the context of land rights. Following a cartelist logic, in 2002 a group of 12 countries representing roughly 70 per cent of the world’s biological diversity met at Cancun in Mexico and formed the Group of Like-Minded Megadiverse Countries. The Cancun Declaration that launched the Megadiverse Group contains a sweeping agenda that includes the pursuit of a new international regime for the fair and equitable sharing of benefits which arise from the use of biodiversity. Yet individual members of the Megadiverse Group have signed free-trade agreements with the US that undermine the position of the group on issues fundamental to it, such as a mandatory obligation to disclose the country of origin for biological materials and any related TK, when intellectual property rights are being sought over those materials.

TK in international fora is a world characterized by multilayered debates, nested agendas, and opaque political games. In this world actors find it hard to read each other’s motives and true positions. Trust and cooperation shatter on the thinnest ice. In this negotiating jungle the prospects of obtaining a detailed rule-intensive treaty with a raft of enforceable obligations on TK appear slim. This is especially so when neither the US nor the EU can be said to have an overriding interest in seeing a treaty on TK emerge. In the absence of a hegemonic actor in favor of globalization standards of protection for TK, the only way forward for weak actors, who would like to see a treaty is to adopt the framework approach.

The upshot of this Part is that the best strategy for TK holders is to use a framework treaty to establish guiding principles for the protection of TK, and then work towards an enforceable global regulatory regime that will support their rights. The justification for such a treaty lies in moral and legal obligations that states have under international standards of human rights protection. In the Part that follows, some of the elements that might make up this framework approach are discussed.

34 The Crucible Group, noting the complexities of relations between indigenous groups and governments, recommended that governments adopt Art 29 of the Draft Declaration on the Rights of Indigenous Peoples. See The Crucible II Group, note 2 above, 78.
35 Brazil, China, Colombia, Costa Rica, Ecuador, India, Indonesia, Kenya, Mexico, Peru, South Africa and Venezuela. Since then Bolivia, Malaysia and the Philippines have joined the group. See Cancun Declaration of Like-Minded Megadiverse Countries, note 27 above.
36 A mandatory disclosure requirement remains a goal of the group. See the New Delhi Ministerial Declaration of Like-Minded Megadiverse Countries on Access and Benefit Sharing, New Delhi, 21 January 2005. The US proposal is that issues related to use of genetic materials and traditional knowledge should be dealt with at the point of access to those materials rather than at the point of commercialization. See WTO Secretariat, ‘The Protection of TK’, note 33 above, 10. The US–Peru FTA contains an ‘Understanding Regarding Biodiversity and Traditional Knowledge’ (dated 12 April 2006) which states that the Parties recognize that access and benefit sharing issues ‘can be adequately addressed through contracts’. This would appear to support the US position in the WTO much better than it supports the goal of the Megadiverse Group.
37 Sometimes a hegemonic actor, acting unilaterally, can globalize a form of regulatory protection. However, even in the case of the powerful actor certain conditions have to hold. The US was successful with its strategy of globalizing semiconductor chip protection using the principle of reciprocity, because foreign manufacturers in Japan and Europe wanted access to the lucrative US market, industry interests were concentrated, and there was only a small number of countries with which it was important for the US to come to a reciprocal arrangement (Japan was the other main producer in the 1980s). See Braithwaite and Drahos, *Global Business Regulation*, note 18 above, 76.
Part III Elements of a Framework Treaty on TK

A. Defining TK

A lot has been written about the legal terms appropriate to use to describe the knowledge assets of indigenous groups, local people, or traditional groups. It is fairly clear that no one definition commands universal support. A report prepared by the WIPO Secretariat neatly summarizes the situation:

"There is . . . a diffuse range of potentially overlapping terms in current use in international, regional and national discussions related to TK, corresponding with a wide range of policy frameworks. Terms are not neutral, and the choice of term is neither arbitrary nor irrelevant."

As a general observation one might say that perfect connotative definitions of subject matter are not usually the stuff of legal definition in any case. Rather, much of the law, whether civil or common law, operates on the basis of open-ended, inclusive definitions of its subject matter. The definition of intellectual property in the Convention establishing WIPO is a good example of this approach. Article 3 of the Revised TK Provisions takes an open-ended, inclusive approach to the subject matter of TK by including 'know-how, skills, innovations, practices and learning that form part of traditional knowledge systems', and not confining the subject matter of TK to any one technical field. As the High Court of Australia remarked (in one of its seminal judgments in patent law) when considering the definition of invention: 'it is an inquiry into the meaning of the word so much as into the breadth of the concept which the law has developed . . .'. Article 3 triggers precisely this kind of conceptual inquiry, and in a situation where definitions are contested this is all that can be hoped for.

B. The Land Issue—A Treaty Review Mechanism

A treaty that did not in some way recognize the territorial issues that are bound up in TK would ultimately undermine its credibility and effectiveness. The link between TK and land remains too powerful for a treaty to ignore. The Composite Report points out that, despite the land claims that have been pressed by indigenous activists around the world, many governments have made inadequate progress. This sets a real problem for the successful evolution of any proposed treaty on TK. Yet at the same time, an attempt to deal with the issue of indigenous sovereignty over land in a treaty on TK would mean that the treaty would probably never see the light of day. National land policy, even in the era of globalization, remains the last bastion of state sovereignty.

One way in which a treaty on TK could recognize the link with land is by means of a modest review mechanism that could be used to track the progress that states make on land access issues as they relate to TK. The Composite Report pointed out that there were few initiatives in the world that were directed towards both the protection of TK and the conservation and sustainable use of biodiversity. Currently in the CBD, where states submit national reports, the reporting mechanism is not working well on the issue of indigenous knowledge. The Composite Report itself recommends that thematic reports on Article 8(j) should be compiled.

One of the problems with any reporting mechanism in the context of the CBD is that its efficacy might be diluted by the volume and complexity of the COP agenda under the CBD. A treaty on TK offers the opportunity to construct a specialist reporting mechanism on whether land policy is being used to support the goals of protecting TK and biodiversity. The exact model for a reporting and/or review mechanism is a matter for negotiation, but international organizations offer many examples of such a mechanism, including the WTO’s Trade Policy Review Mechanism and the International Labour Organization’s sophisticated dialogic machinery for securing compliance with its standards.

The purpose of such a mechanism would be to commit states to a process of continuous improvement on the protection of TK. There are different approaches one might take to a treaty review mechanism, but one possibility is that states could agree on a set of performance indicators in this field. These could include reporting on the following:

- progress on land rights issues related to TK;
- assistance rendered to other states on TK enforcement issues; and

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38 For a survey see ‘Traditional Knowledge—Operational Terms and Definitions’, WIPO/GRTKF/IC/3/0.  
39 Ibid, 8.  
40 National Research Development Corp v Commissioner of Patents (1959) 102 CLR, 252.
commit states to an equality of treatment. National treatment, whether it is applied to a class of goods or a group of individuals, aims to place those goods or individuals in the same position in terms of treatment or rights. However, the equalizing effect of MFN and national treatment does not necessarily produce a harmonizing effect. MFN and national treatment only require a state to extend its standards to goods or citizens from another state, not to match the standards of that other state.

D. National Treatment and Mutual Recognition

Article 14 of the Revised TK Provisions and its accompanying commentary suggest that the principle of national treatment is a suitable starting point for the international protection of TK. However, as the commentary also makes clear, a strict application of national treatment quickly runs into problems. The value of respect for difference, which is central to this whole area, is not strongly served by a principle that would require a state to treat an outside indigenous group, or the use of indigenous knowledge, in the same way that it treated its own indigenous groups. National treatment of itself does not oblige a state to recognize another state’s standards. It follows that national treatment is not an especially suitable principle where states wish to promote their own standards to be recognized in a foreign state. Strong states such as the US have been able to take advantage of the principle of national treatment in intellectual property, but this is principally because in bilateral and regional treaty negotiations the US has been able to secure standards that match its own standards. In the hands of a state that has the necessary leverage and bargaining power, the principles of national treatment and MFN can be used to promote convergence towards higher standards.

TK is more about recognizing the legal transportability of standards that, by virtue of custom, are personal to a group of TK holders, than about convergence on a set of common standards. In essence, TK raises a choice-of-law issue. The principle that many TK holders would like to see applied by states exercising jurisdiction over the matter is that courts recognize and apply those customary rules that regulate the origins and use of the TK. On this principle the customary rights and duties of TK holders would track TK knowledge wherever it was used. Clearly, this principle is radically extraterritorial in its operation.

On the face of it, the principle of mutual recognition would appear to have the greatest relevance, because it allows for the recognition of another party’s standards. Mutual recognition is a principle that is important in cross-border provision of services such as banking and insurance. It can also be applied to

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*C. Operating Principles of a Treaty*

One important issue that parties to a treaty in this field will have to decide is how the treaty will regulate the relationship between a given party’s domestic standards for the protection of TK and another’s standards. In particular, the parties will have to decide to what extent they will want to use the treaty as a means to converge on a given set of standards. Related to this is the question of whether the treaty itself will set positive minimum standards on its own, or, for that matter, maximum standards beyond which the parties cannot go. The issue of the convergence effects of a treaty on TK is a very sensitive one. States that have invested time and resources in developing national models and protection for TK will not want those models undermined by a treaty.

The core principles that regulate the interaction of national standards amongst members of a treaty are the principles of reciprocity, national treatment, most-favoured-nation (MFN), and mutual recognition. These principles can operate together in various ways in a treaty and they can be the subject of qualifications, exceptions and conditions. States might start with a robust statement of MFN or national treatment, for example, but then allow for certain exceptions based on subject matter or membership. National treatment might be the subject of a ‘list’ approach, in which certain matters are listed for national treatment, or certain matters are excluded from national treatment.

Clearly states can use these principles to shape their rights and liabilities on any given subject matter in a wide variety of ways, including in the field of TK. The national treatment and MFN principle are essentially principles that

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*For a discussion of the various ways in which these basic principles can be qualified see Most-Favoured-Nation Treatment, UNCTAD Series on issues in international investment agreements, (1999); National Treatment, UNCTAD Series on issues in international investment agreements (1999).*

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the sale of goods that come from one jurisdiction to another (as it is for example under the Mutual Recognition Agreement and the Trans-Tasman Mutual Recognition Arrangement between Australia and New Zealand). Typically, the parties to a mutual recognition agreement will have agreed to at least some common standards that applicants for a licence to operate will have to meet. It is also important to note that in this kind of situation the principle of mutual recognition will not have conferred extra rights on a commercial actor.

The effect of mutual recognition is different if it is applied to the holders of rights. In its simplest form, the principle would require a state to recognize the standards of rights protection of other states. However, states may be reluctant to commit themselves to such a principle because of potentially non-reciprocal effects. For example, State A might declare some aspects of folklore to be in the public domain while State B might subject all elements of folklore to property rights protection. An agreement between them based on mutual recognition would mean that the citizens of State B could draw on those elements of State A’s folklore that were in the public domain. However, the citizens of State A could not draw on the folklore of State B. They would be restricted to what was in the public domain under their own law. Mutual recognition essentially presupposes some mutually held standards. Yet in a survey carried out by WIPO in 2002, nine out of 21 states reported that their current standards of intellectual property did not afford protection for TK. It would be surprising if states were prepared to recognize property rights for foreigners that they did not recognize for nationals. States that enacted weaker property rights regimes for TK might take the view that they were disadvantaged by mutual recognition because it required them to recognize the strong domestic standards of foreign states. Generally speaking, mutual recognition works well where trade in goods or services is already occurring and there is already some degree of convergence between the standards that are to be the subject of mutual recognition. The mutual recognition between Australia and New Zealand, for example, seems to have been successful in part because the close commonality of history, culture and objectives across Australia and New Zealand reduces

significantly the risk that mutual recognition would compromise any jurisdiction’s basic interests.

E. Misappropriation

Article 1 of the Revised TK Provisions creates an obligation to protect TK against misappropriation. Misappropriation is in many ways a natural starting point for the protection of TK because its vagueness can be used to accommodate a diversity of national approaches to protection. The vague nature of misappropriation flows from the fact that its operation depends on an act being characterized as unfair. There is an irreducible component of subjectivity in deciding between fair and unfair acts, meaning that there would be an inevitable variety at the national level in the scope of protection against misappropriation offered to TK holders. It has been pointed out that, as a logical possibility, a general norm of misappropriation could replace all existing categories of intellectual property. But it is also clear that some jurisdictions want to confine the operation of misappropriation. In the US, section 38 of the Restatement (Third) of Unfair Competition (1993) puts an end to the tort of misappropriation in the form of an independent action. Posner has argued that one of the problems with misappropriation is that, in a market economy, it can potentially drive our efficient free-riding upon which competition depends. Given the policy debates that a misappropriation norm is likely to trigger, it is better to think of misappropriation in the context of TK as a general term denoting different possible statutory and non-statutory actions. This seems to be the approach of WIPO’s Revised TK Provisions.

Irrespective of whether or not a treaty on TK contains a misappropriation norm, it is clear that a wide variety of norms for the protection of TK are in fact evolving. The key issue in many ways is a practical one—how can TK holders find the means and capacity to make use of national forms of protection, especially if they are located outside the country in which they are seeking a remedy?

46 See Most-Favoured-Nation Treatment, ibid. 23.
47 A real example is reported in ‘Introductory Observations’ in the ‘Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions’, UNESCO/WIPO 1985, para 7. The law of Morocco restricted folklore to unpublished works, while the laws of Algeria and Tunisia did not.
Part IV The Fair Trade Movement and TK

One of the significant contributions that a treaty might make is to help develop an approach to a system of certification that could be used by indigenous groups around the world for the marketing of their products. One of the recommendations of the Second Session of the Permanent Forum on Indigenous Issues was that states should promote the 'knowledge, application and dissemination of appropriate technologies and indigenous peoples’ local products with certificates of origin to activate product activities, as well as the use, management and conservation of natural resources'.

WIPO, in its report on its fact-finding missions, made reference to the Indigenous Label of Authenticity that was developed by the National Indigenous Arts Advocacy Association in Australia in 1999. It was thought that the mark would help to ensure a fair and equitable return to Aboriginal and Torres Strait Islander communities, and that it would maximize consumers’ certainty that they were getting the genuine product.

The results of the authentication mark, however, have been disappointing and the mark has been abandoned. The reasons have to do with debates about what constitutes authenticity, the fact that one mark was not seen as being able to accommodate the needs of all indigenous groups, and the lack of proper funding for the administration of the mark. This failure can be compared to a success story, namely the Fairtrade label. The contrast between this and the authenticity label could not be greater. Products selling under the Fairtrade label can be found in European, US, Canadian and Japanese markets. The Fairtrade Labelling Organizations International (FLO) represent some 352 certified producers and 449 licensees that are authorized to use the label in 17 consumer countries. Some 800,000 farmers and workers benefit as producers from the FLO systems of certification. Significantly, according to its website, FLO is moving down the path of a single International Fairtrade Certification Mark, because this helps consumer recognition and aids producers in international trade.

It would be wise to study in detail the reasons for the failure of the authenticity label in Australia and compare this with the success of the Fairtrade label. One preliminary conclusion that could be drawn is that it pays to think big. In a world of increasing trade, trademarks can work large-scale effects in wealthy consumer markets. In the case of FLO, these large-scale effects have been won through an extended period of coordination amongst the National Initiatives, the individual country organizations that make up FLO. Labelling initiatives that are poorly financed, that do not look to global markets, and are isolated are likely to fail, as in the case of the authenticity mark in Australia. Crucial also is the idea that producers should unite around a few or, as FLO plans, one highly visible certification mark.

Labelling will be fundamental to the success of TK products in the vast consumer markets of developed countries. Drawing on the experience of the Fairtrade label, the potential members of a treaty on TK should use the treaty as a means of developing a coordinated approach amongst themselves to labelling and certification. WIPO’s fact-finding missions revealed a clear demand by indigenous groups for the improved use of certification systems. Indigenous groups need more than just assistance with matters relating to the registration of marks. The Fairtrade label example shows that labels linked to trade and development issues can become global brands if they are part of an overall commercial strategy in markets. Governments should explore the role that they can play in creating an infrastructure that allows for the creation of some small group of highly visible certification marks for the benefit of indigenous groups. Significantly, through the agency of the European Parliament the European Union is moving towards creating a policy framework for fair trade.

Care must be taken not to confuse the Fairtrade labelling issue with the issue of geographical indications. Geographical indications are one highly specialized form of intellectual property that potentially can divide developing countries in terms of trade gains and losses. Protection for geographical indications has

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54 Two labels were developed and registered—the Label of Authenticity and the Collaboration Mark.
57 An example of the way in which the certification movement might be used to assist indigenous groups is to be found in the forest certification scheme of the Forest Stewardship Council. This certification scheme recognizes the right of indigenous peoples to be compensated for the use of their traditional knowledge. See UNCTAD, ‘Background note by the UNCTAD Secretariat’, TDF/COM/L/157/2, 22 August 2000, 23, fn. 10.
advanced slowly. Moreover, the economic case for developing countries embracing this kind of protection is far from clear. 59

Part V Disclosure of Origin

The CBD recognizes the sovereign rights of states to exploit their resources, a right that extends to genetic resources. 60 By implication, the CBD recognizes the rights of states to develop property rights regimes for genetic resources. A country can police the exploitation of its minerals or forests far more easily than it can the exploitation of its genetic resources. For example, a biologist can easily take a small soil sample out of a country that contains millions of bacteria. Compounds from the bacteria might eventually find their way into the laboratory of a pharmaceutical multinational where they are tested against thousands of screens that detect things like antibiotic activity. In some cases, interesting activity is found, and in rare cases (and after many years) the compound might end up the subject of a patent that protects a blockbuster drug. Assume for a moment that the biologist obtained the soil sample from an indigenous group who used the soil as part of a traditional treatment for wounds. Is that group entitled to any of the profits that the company has made? Our ethical intuitions and corresponding moral argument will in part be affected by the way this kind of example is framed (for example, did the biologist sneak the soil sample out of the village, or did he ask permission?). Developing countries, bolstered by real examples of patents over resources such as basmati rice, the Enola bean, and turmeric, have argued that patent law should help to preserve their right of exploitation when it comes to genetic resources. 61 The logic of the argument put forward by developing countries is clear enough. Once the international community recognized in the CBD the sovereign right of states to exploit natural resources, subject to other treaties, all states as a matter of international comity had obligations to respect, and more importantly not to undermine that right. The reform of patent law to include

60 See Arts 5 and 15.1 of the CBD.
61 For a critical discussion of these and other cases of 'biopiracy' see C R McManis, 'Fitting 'Traditional Knowledge Protection and Biopiracy Claims into the Existing Intellectual Property and Unfair Competition Framework' in Burton Ong (ed.), Intellectual Property and Biological Resources (Marshall Cavendish Academic, 2004) 425. See also Chapter 9 above (Hon, Jean R Homers).

63 See 'Draft Technical Study on Disclosure Requirements Related to Genetic Resources and Traditional Knowledge', WIPO/GRTKF/IC/10.
64 See 'Communication from Brazil, India, Pakistan, Peru, Thailand and Tanzania', WT/GC/W/564, 31 May 2006. Norway has also submitted a proposal. See The Relationship between the TRIPS Agreement, the Convention on Biological Diversity and the protection of traditional knowledge—Amending the TRIPS Agreement to Introduce an Obligation to Disclose the Origin of Genetic Resources and Traditional Knowledge in Patent Applications', IP/C/W/473, 14 June 2006.
It is clear that many patent applications in the biotechnology field already contain information about matters like country of origin. There is no reason why patent offices could not develop guidelines and a systematic practice around patents relating to genetic resources and TK. They routinely develop guidelines on many aspects of patent office practice. The Trilateral Offices, for instance, have a long record of cooperation and recently they have been furthering this cooperation in the biotech field. Guidelines on disclosure could be developed as part of a cooperative exercise initiated by the major patent offices of developed and developing countries (the Trilateral Offices along with, say, China, India and Brazil). Importantly, the consequences of a false, incomplete, or misleading disclosure would be determined by national patent law. Over the decades each major patent jurisdiction has developed a refined body of law relating to who is an inventor, co-inventorship, fraud upon the patent office, and so on. A disclosure requirement should aim to harness this law rather than disturb it.

One important advantage of proceeding down this administrative route is its comparative ease of implementation. Even if the Trilateral Offices refused to participate in developing best practice guidelines on disclosure of origin, the major patent offices of developing countries (China, Brazil and India) could begin the process. These developing countries are important emerging markets and so will continue to attract a significant and growing number of biotechnology applications, especially through the PCT filing route. These offices could also request the patent applicant to provide information about related foreign applications (allowable under Article 29(2) of TRIPS). Furthermore, once information relating to origin and use of any genetic material and/or TK was available and published in some patent jurisdictions, the information would be available for use in other jurisdictions. The Trilateral Offices might well decide to participate in the process of globalizing best practice in this matter. These offices do not especially want to be involved in embarrassing biopiracy episodes. Developing administrative best practice around disclosure would be easier than attempting to insert a disclosure standard into existing patent treaty law, especially if its purpose was to enable the existing web of controls in patent law to work more efficiently.

A treaty on TK might attempt to stimulate this process by creating obligations of cooperation amongst the patent offices of states, especially the lead patent offices from developed and developing countries.

On a final note, it is worth asking who or what would act on the basis of the information that a disclosure obligation generated as part of the application process? In terms of resources not much can be expected from patent offices. The USPTO's 21st Century Strategic Plan estimates that there are 7 million patent applications waiting to be examined. At the level of organizational culture many patent offices take the view that contests over patents are for the marketplace to sort out. All care and no responsibility is their hidden motto. Patent litigation is complex and expensive. Who exactly, one wonders, would monitor and act on the extra information that would be released by a disclosure obligation? This brings us back to the principal argument of this chapter, that a treaty on TK should aim to contribute towards solving problems of enforcement and capacity. The next part of the chapter outlines one approach to these problems.

Part VI Solving Enforcement and Capacity Issues: Pyramids and Networks

I noted at the beginning of this chapter that there has been a rapid proliferation of legal and non-legal norms for the regulation of TK. TK, however, cannot be said to have evolved into a regulatory regime because processes and strategies for monitoring compliance have been largely neglected, as have mechanisms for the enforcement of norms. Even less attention has been paid to capacity issues. Where a breach of a TK norm is identified and there is an enforcement mechanism (for example, an opposition proceeding in a patent office) TK holders may not have the ability and resources to use the enforcement mechanism. When the creation of regulatory norms races ahead of a supporting institutional infrastructure aimed at securing compliance, the norms run the obvious risk of ineffectiveness. The norms never make the passage from paper statements to daily life and living regulation. In the sections that follow two arguments are elaborated to show how the issues of monitoring, enforcement and capacity might be tackled. Roughly, the first argument is that the monitoring and enforcement of TK norms can best be accomplished by adopting a strategy based on the regulatory pyramid. The capacity issues in TK are especially challenging because the holders of TK often lack resources and the misappropriation of TK may take
place outside the country in which the TK holder lives. The solution to this kind of capacity problem lies in TK holders enrolling the capacities of others through networking. Bringing these two ideas together the chapter outlines an approach to the enforcement of TK based on the networked enforcement pyramid.

A. The Enforcement Pyramid

One regulatory tool that is being tried for the protection of TK is the creation of protocols/guidelines or other soft norms setting the use to which third parties, wherever located, may put the relevant knowledge. The usual objection to the use of protocols is based on enforceability. Protocols are not laws and therefore adherence to them is a voluntary matter. Their advantage is that they are a less costly form of regulation to produce than formal law. They are also a flexible form of protection that can easily be adapted to changes in circumstances. Moreover, they will work with at least some actors. For much the same reason that it is a mistake to assume that all actors are virtuous, it is a mistake to assume that none are so. There are at least some actors who would welcome the guidance that a protocol can provide, since they wish to do the right thing. Many people that work in museums, scientific organizations, or large corporations see respect for other cultures as an inherent value to be defended and acted upon. For this type of actor, protocols and guidelines are valuable sources of information about appropriate and inappropriate uses of TK.

The weakness of protocols and guidelines is a weakness that only exists if they are not part of a broader and integrated enforcement strategy that recognizes that not all actors will be virtuous. Some actors, for instance, may decide on compliance or non-compliance in terms of probabilities of sanction, and costs and benefits. For these kinds of actor, regulatory tools of deterrence become important along with the strong projection of a commitment to enforcement. The idea is to induce them to calculate in favour of compliance. For reasons of irrationality, incompetence or zealotry some actors may not respond to deterrence, and so tools of incapacitation become important. The theory of the enforcement pyramid proceeds on the assumption that there are differently motivated actors in the world for which different regulatory tools will be needed. It holds that there is a distinctive sequence of responses that the regulator must follow in order to maximize compliance (see Figure 11.1 below). The sequence is always the same irrespective of the subject matter.

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69 The CBD website lists dozens of these as part of its work programme on Art 8(1) of the Convention on Biological Diversity. See <http://www.cbd.int/programmes/socio-eco/traditional/default.shtml>.
70 But, as has been pointed out, protocols do establish industry standards that may eventually chart the way for legal rights. See 'Consolidated analysis', note 56 above, 75.

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**Figure 11.1 Enforcement Pyramid—Actors and Responses**

A considerable body of scholarship has shown both theoretically and empirically how enforcement pyramids can increase compliance. At the base of the pyramid are the 'soft' tools of regulation such as guidelines, protocols, and educational strategies. These soft tools assume that actors are disposed to do the 'right thing' and are willing to cooperate. As one moves up the pyramid, the tools of regulation begin to assume a more coercive character until, at the top of the pyramid, there is some form of incapacitation (this depends on the area of regulation but might involve imprisonment, suspension of trade, loss of licence, and so on). Where the regulator is unsuccessful at the bottom of the pyramid he or she can move up the pyramid to deploy the more coercive tools of regulation. An enforcement pyramid gives a regulator a unified set of strategies that can be deployed against all types of actors (virtuous, rationally calculating, resistant, incompetent). As one strategy fails another is wheeled into place. There is an irrevocable presumption in favour of starting at the base of the pyramid with dialogic and information-based strategies. This is less costly, more respectful, and ultimately makes the use of coercion more legitimate, because non-coercive strategies have been given a chance to work. Regulating the use of TK by means of an enforcement pyramid is especially appropriate because, for indigenous groups, respectful engagement with others over the use of their knowledge and resources is the fundamental starting point of any process of regulation.

In its latest manifestation, the enforcement pyramid has been merged with restorative justice approaches. These are approaches that focus on a procedure for bringing together those parties affected by a breach of norms and finding ways
to repair the harm. The emphasis is on a collective process of finding acts that will restore those adversely affected rather than on the procedures that simply aim to punish the wrongdoer. Linking restorative justice approaches to the regulation of TK is appealing because those approaches are most likely to recognize that the misappropriation of TK is a communal harm that needs to be repaired in a communal way. Standard adversarial approaches lack the flexibility to accommodate the communal nature of TK.

Responsive regulation and the enforcement pyramid is an approach conceived of in the context of national business regulation where governments have the powers and resources to adopt responsive regulatory approaches. The regulation of TK poses more complex problems. TK may involve a number of jurisdictions and a number of actors and no agreement as to whether misappropriation has occurred. Even if there is agreement on the facts, there is no single regulator to coordinate an international enforcement strategy, let alone a strategy based on an enforcement pyramid. Capacity issues also loom large. TK holders, for instance, will generally lack the technical expertise to track the use of their knowledge in patent applications. Some idea of the difficulties of using the patent system can be seen from the remarks of the Swedish Patent and Registration Office made in 1999 on the reform of the International Patent Classification system. It observed of the IPC that it is ‘too complicated and detailed for the general public or for small offices that only need to search small bodies of patent literature’ or do not search at all’ and that the problems with the IPC had grown to a point where even experts have trouble making accurate searches. Another example of the difficulties in using the patent system is to be found in the pharmaceutical sector. Specialist organizations interested in finding out the patent status of HIV/AIDS drugs have reported difficulties in obtaining basic information about patent status in various jurisdictions.

In an area where even well-resourced specialists have problems it seems safe to assume that indigenous groups will experience problems when it comes to tracking the use of their TK through the patent system using the IPC. Unless some way is found to allow indigenous groups to track and monitor the status of patent applications and granted patents, a treaty standard that encouraged the release of more information about a patent application will be of little practical value to indigenous people, or for that matter the underserved and under-resourced patent offices of many developing countries. It is also worth adding that even before one addresses the capacity problems there is the very basic issue of awareness of one’s rights. Elspere, for example, commenting on the African Union Model Law for the Protection of the Rights of Local Communities Farmers and Breeders and the Regulation of Access to Biological Resources, observes that it is an ‘understatement that most Africans are not aware’ of the model law or the reasons for its development.

Enough has been said to show that the international regulation of TK faces very deep and basic problems when it comes to the monitoring and enforcement of norms aimed at protecting the rights of TK holders. As we said at the beginning of this chapter, the danger of symbolic regulation in TK runs high. A treaty on TK may simply end up being a politically convenient piece of regulatory ritualism that delivers no significant benefits to traditional knowledge holders, but allows political elites to claim that the concerns of TK holders have been met and it is time to move on. In order for a TK treaty to avoid the fate of regulatory ritualism, it has to ground the evolution of a regime that ultimately will allow some of the weakest groups in the world to enforce traditional cultural norms across borders against much more powerful actors.

The enforcement pyramid, that we discuss in this section of this Part, provides a strategy for integrating the various regulatory tools that are being developed for the protection of TK. Another virtue of the pyramid is that it maximizes the chance of obtaining compliance with TK norms at the lowest possible cost. It follows that a treaty on TK should contribute to the creation of an international enforcement pyramid for TK. The details of this international pyramid are discussed in the next section of this Part.

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78 A proposal to revise the IPC to accommodate the classification of TK is being worked on by WIPO Taskforce on Classification of Traditional Knowledge. The Taskforce has prepared a revision proposal in the field of medicinal preparations containing plants. See ‘Practical Mechanisms for the Defensive Protection of Traditional Knowledge and Genetic Resources within the Patent System’, WIPO/GRTK/HC/C/56/19.
B. The GBS and an International Enforcement Pyramid

In the previous section we saw that in the context of national business regulation the enforcement pyramid assumed a single regulator such as a telecoms regulator, a tax regulator, a competition regulator, and so on. Creating a single global TK regulator with coercive powers probably has the same degree of feasibility about it, as does the idea of a single world tax authority. A less ambitious approach might be to use the treaty to commit states to the establishment of a transparent, high profile, multilateral agency that could take on the role of co-ordinating the use of national regulatory tools for TK. The various studies undertaken by the WIPO secretariat show that there are many possible regulatory levers that might be pulled at the national level when it comes to dealing with conduct that harms the interests of TK holders. One critical challenge is to ensure that the first response is not a punitive one, but rather, always begins at the base of the pyramid in the form of dialogue and persuasion. A multilateral agency could take responsibility for collecting and publishing protocols on permissible uses of TK, as well as ensuring that in any dispute over the use of TK, protocol and dialogue between the parties formed the first response.

In terms of organizational structure this multilateral agency could follow the Global Bio-Collecting Society (GBS) model that has been proposed elsewhere and recommended for further exploration. The basic idea behind the GBS is that TK holders, states and business actors would share in its governance. Its primary functions would be technical assistance (e.g. help with drafting laws and protocols) and the coordination of enforcement responses based on the enforcement pyramid. The GBS would basically be a network of networks at different levels of the pyramid. It would bring in those networks that had the capability to deliver the enforcement response that was required at the level in the pyramid to which the enforcement dispute had escalated. By way of example, indigenous networks would be involved at the dialogic base of the pyramid. If this did not succeed restorative justice approaches could be tried, and if these failed deterrent approaches based on threats of publicity or legal action could be used at the next level of the pyramid. Here the GBS might involve NGO networks expert in campaigning and public shaming, or law firms willing to do pro bono work on TK. If there was still no compliance, the GBS would continue to involve other actors capable of delivering more serious sanctions (for example, patent offices, environmental agencies). In effect, the subtext and strength of this international enforcement pyramid would vary from case to case, as it would depend on the strength of the tools of regulation that had been developed at the national level by individual states. But, given the proliferation of TK norms in the last decade, the GBS would always be able to coordinate some sort of response. Moreover, some strong deterrent sanctions would be available in all jurisdictions (e.g. adverse publicity). Figure 11.2 below illustrates this networked enforcement pyramid.

![Figure 11.2: Networked International Enforcement Pyramid](image)

This international enforcement pyramid, we have seen, is different from the usual responsive regulatory pyramid, in that such pyramids typically assume a single regulator. Here the GBS is not a regulator in the classical sense, but rather a coordinator of other actors. This pyramid, in keeping with the philosophy of responsive regulation, begins with the presumption that it is best to start at the base of the pyramid. Other actors will often be in a better position to begin the process of engagement than the GBS. If, for example, a museum breaches a protocol of customary use it may change its behaviour once the breach is pointed out to it. In some cases the GBS may cast its shadow over the process, thereby alerting a potential offender to the possibility of an escalation up the pyramid if persuasion and dialogue do not work. The point is that, in a case where enforcement has to work across borders and accommodate a diversity of standards and values,
there is no one actor that can manage all the tools of enforcement. But there does have to be an actor that can manage the many information problems that occur in this type of enforcement environment, and that can coordinate a response amongst the actors best placed to utilize the next stage in the enforcement response. It will be this coordination that constitutes the enforcement pyramid and therefore its responsive effects. Without this kind of coordination, enforcement responses will fall to the ad hoc initiatives of different actors. The result will be that sometimes the punishment will be unnecessarily severe because an excessive level of response was the first response, or there will be a failure of punishment because the cooperation of those actors capable of implementing a response at the top of the pyramid (for example, patent offices) has not been obtained. The effect will be to create uncertainty and resentment amongst some actors who believe that they have been unfairly targeted. In such a world trust decreases and defiance may well increase.\textsuperscript{82}

C. A Treaty on TK and Existing International Regimes

TK is an issue that cuts across work programmes within fora, as well as the work programmes of different fora. The Commission on Intellectual Property Rights, after noting the large number of international bodies that were working on aspects of TK, observed that ‘[t]here is much to gain at this early stage by considering the issue in a number of fora’.\textsuperscript{83} At some point, however, the question of which forum is appropriate for a treaty will have to be considered. A summary by the WTO Secretariat noted that there are essentially two views on the forum issue.\textsuperscript{84} Some states (for example, the EU and US) take the view that WIPO’s work programme on the issue should be given priority. Other states (for example, Brazil and India) want an approach that is integrated across the relevant fora such as the CBD, FAO, WTO, and WIPO. One of the real dangers of having so many international organizations work on TK, and adding more and more norms to those that are already being generated at state level, is that the regulation of TK begins to lose coherence. Instead of coherence there is a clash of cultures, legal approaches, and enforcement strategies. Ultimately, the goal and purpose of regulation becomes lost. One reason for supporting a treaty that makes enforcement its priority is that an enforcement perspective is likely to bring with it a more practical monitoring and problem-solving approach to individual cases of TK misuse. In many ways the best thing that could happen to TK is for it to be taken out of the grandstanding geopolitics of interlinked international negotiations, and for it to enter the quiet world of technical problem solving.

One possibility that should be explored is whether key organizations such as the WIPO, the FAO, and the CBD might be able to establish a Global Bio-Collecting Society as a joint initiative. Each of these organizations has important specialist skills and knowledge that the GBS would need to draw on (WIPO, for instance, has matchless expertise in running registration systems). It would be worthwhile, therefore, to explore the role that these international organizations could play in the establishment and governance of the GBS. Involving these organizations in the GBS would also be a practical means of achieving greater coherence and coordination on the issue of TK more generally. A GBS, for example, could pull together the work of different international organizations on the development of protocols, guidelines, and codes of conduct, and issue them as an integrated set. Such a set would be likely to gain a greater de facto authority and following, because they would be linked to an agent capable of carrying out or coordinating an enforcement response.

The areas of TK and biodiversity are rife with free-rider and collective action problems. On any realistic assessment, international coordination is going to be painfully slow. One advantage of basing an approach on the creation of a GBS is that it would give priority to the enforcement issue, and encourage states to make more efficient use of existing norms, rather than devoting resources to the creation of new norms that in any case would still have to be enforced.

Conclusion

The central conclusion of this chapter is that a treaty on TK should focus on the enforcement dimension of TK. Specifically, this would involve members in the establishment of a Global Bio-Collecting Society that would coordinate enforcement work so as to constitute an international enforcement pyramid. The treaty should also establish a review mechanism and a set of indicators that could be used to evaluate the progress of states on the regulation of TK. At this stage of the evolution of protection for TK, a treaty should avoid setting detailed substantive international norms of protection. Instead, states should focus on creating a treaty that does not discourage the development of national approaches and norm-creation on TK, but does offer the members of such a treaty a means of cooperating in, and coordinating the enforcement of TK. A treaty that is modest in setting substantive standards, but strong on coordinating national enforcement activities, will be far more likely to avoid becoming a dead letter.