Poor People's Knowledge

Helping Poor People to Earn from Their Knowledge[1]

by
J. Michael Finger

Abstract

How can we help poor people to earn more from their knowledge rather than from their sweat and muscle? This paper summarizes a collection of essays that investigate the promotion of "poor people's knowledge"—promoting the innovation, knowledge, and creative skills of poor people in poor countries, and particularly improving the earnings of poor people from such knowledge and skills. The collection is a modest attempt to look at the issue from the perspective of the economic value of poor people's knowledge. It is about the knowledge poor people own, create, and sell rather than about what they buy. It is a collection of stories of attempts to increase poor people's earnings from their knowledge.

The essays call attention to a broader range of knowledge that has commercial potential in developing countries, and bring an economic dimension into the discussion of traditional knowledge. They highlight the incentives for and concerns of poor people—which may be different from those of corporate research, Northern nongovernmental organizations (NGOs), or already successful entertainment stars. The essays demonstrate that the best answer is sometimes commercial rather than legal (for example, obtaining a formal patent or copyright protection), although in some instances standard legal approaches have been effective and it is useful to identify the problems in which legal innovation is really needed. In addition, there are many income-earning (rather than income-using) dimensions of culture.

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[1] *Poor People's Knowledge: Helping Poor People to Earn from Their Knowledge, e*dited by J. Michael Finger and Philip Schuler. World Bank and Oxford University Press, forthcoming 2003.

Introduction and Overview

by

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How can we help poor people to earn more from their knowledge rather than from their sweat and muscle? This paper is about promoting the innovation, knowledge, and creative skills of poor people in poor countries, and particularly about improving the earnings of poor people from such knowledge and skills. It reviews a number of studies of the successes and problems people in developing countries have experieced in attempting to earn income from commercial applications of their knowledge.

The objective of the paper is to draw lessons from the experiences it reviews. In so doing, it aims to expand the international discourse on the role of intellectual property in development. Since the agreements reached at the Uruguay Round came into effect in 1995, the World Trade Organization (WTO) agreement on the Trade Related Aspects of Intellectual Property (TRIPS) has more or less defined the discussion of intellectual property (IP) and development. This agreement, as is explained below, is about knowledge that exists in *developed* countries, about developing countries' access to that knowledge, and particularly about developing countries paying for that access. This paper is about knowledge that exists or might be created in *developing* countries.

To the extent that the international community has paid attention to knowledge in developing countries it has focused on two issues:

- The defense of "traditional knowledge" against misappropriation by industrial country interests.
- The policing of "biopiracy" on the part of industrial country interests, that is exploitation of the biodiversity that exists in developing countries to develop agricultural products, health care products, and so forth, without proper compensation to the "traditional communities" that first discovered the usefulness of such genetic material.

The experiences reviewed here call atention to a broader range of knowledge that has commercial potential in developing countries. The review will also bring out the economic dimension of traditional knowledge, whereas legal analysis has thus far been at the forefront. The objective is to bring into the discourse a sense of the commercial as well as the legal tasks needed to solve a developmental problem – away from "knowledge" as an isolated legal issue.

The review also calls attention to the many income-earning (rather than the income-using) dimensions of culture – to demonstrate that culture and commerce more often complement than conflict.

Finally the review of the economic value of traditional knowledge brings out instances in which more or less standard legal approaches have been effective. This information is useful as an antidote to the general sense of conflict between traditional knowledge and normal legal conceptions. Dilligent application, not legal innovation, is often what is needed.

Scope of the Issue

"Life is more than making a living, economic development is in the end about enjoying life," noted Amartya Sen (2000) during the opening of a workshop on the economics of music in Africa. "With all the political, medical, social, and economic problems the Africans face, their enthusiasm for music still brings smiles to many faces and joy to many lives."

Maureen Liebl and Tirthanker Roy (2000, p. 199) provide an anecdote that expresses a similar feeling. When an Indian historian, Dr. Shobita Punja, was asked to comment on his role in economic development, he replied: "Others may be concerned with making sure that every Indian has potatoes to eat. My concern is to preserve the part of our culture that has resulted in a thousand different recipes for potatoes."

In a later study Liebl and Roy (2003) remind us that handicraft in India has value beyond its capacity to generate income. But, they continue, it is also a source of income for large numbers of poor people. In India almost 10 million people earn more than US$3 billion per year from handicrafts. Though Liebl and Roy's motivation is to maintain the art of Indian crafts and to improve the situation of talented artists living in poverty, they recognize that in the natural evolution of things it is neither possible nor desirable to preserve every single piece of the past. Except in a museum setting, they point out, no traditional craft skill can live on unless it has a viable market. The other authors whose work is reviewed here share this orientation. They are value driven and market accepting.

Many studies give examples about enhancing the commercial value of poor people's knowledge in which there are no worries about this use being culturally offensive to members of the community or about this use undermining the traditional culture of the community. Ron Layton (2004), for example, is working with Congolese artisans who have offered a product for sale in the U.S. market. There is no issue of unethical use; the artisans are in the market to make money. Other studies examine instances in which a community considers social and cultural concerns more important than commercial possibilities. Daniel Wüger (2004), for example, explains how the people of the Santa Domingo pueblo thought it sacrilegious for pictures of a traditional dance to be displayed outside the community and demonstrates that in this instance IP law might not have prevented the abuse. However, legal instruments that protect privacy did prove useful.

A number of studies describe attempts to help poor people get along in the modern world—to use modern instruments for managing the ownership of knowledge either to collect on the commercial value of that knowledge or to prevent its use in a way that its owners consider inappropriate.

Nelly Arvelo-Jimenez (2004) is an exception. Her premise is that the traditional knowledge of the Yekuana people of the Amazon and Orinoco Basins is a body of knowledge for an alternative conception of all the dimensions of life—those introduced to the Yekuana people from outside their territory as well as those they have dealt with for a long time. Her concern is not to deal with poor people's knowledge within the legal and commercial conceptions of modern society. Instead, it is to find the Yekuana spirit in outside things, to find a way to bring outside things into the Yekuana world rather than to help the Yekuana take on the conceptions of the outside world.

Intellectual Property in the WTO: The Development Dimension and the Developed Dimension

The WTO agreement on TRIPS requires that all member countries provide minimum standards for legal recognition of intellectual property rights (IPRs) and for enforcement of the rights of holders, both foreigners and nationals. The level of protection required is more or less the level in place in the most advanced countries.

Industrial country enterprises were the force behind this agreement. If the level of IP protection was as high in developing countries as in industrial countries, then developing country users would have to pay royalties on the IP their national laws had allowed them to copy for free. A lot of money was at stake—the obligation the developing countries took on comes to about US$60 billion per year.[2]

There would be benefits for developing countries from this arrangement, industrial country negotiators contended. If developing countries enforced IPRs as the TRIPS agreement specifies, they would attract considerable foreign investment. Furthermore, industrial country companies would have an incentive to create products aimed at problems such as tropical diseases that were of particular concern to developing countries. The agreement also promised assistance to put the new rules in place.

As to the WTO legalities, to pass and enforce the laws that create the US$60 billion a year obligation is a bound obligation; however, the implementation assistance and the impact on investment and innovation are not. In short, TRIPS identifies an opportunity that industrial country enterprises saw in developing countries and provides a way for them to collect on this opportunity—through the WTO legal mechanism. Meanwhile, it provides no mechanism to ensure the benefits for developing countries that the negotiators alleged would follow.

For developing countries, the IP issue that TRIPS brings forward is how to pay the US$60 billion a year and how to ensure that they, the developing countries, derive the maximum of foreign investment, technology transfer, and so forth, in response. This is less a capturing of the development dimension of IP than it is the make-do part of the *developed* dimension.

The other component of the IP issue for developing countries is to identify what problems their citizens face in earning a living from the knowledge they create or apply, and to work out solutions for their problems. This task has not yet been taken on. It is the unwritten half of the TRIPS agreement —and within this lies the development dimension of IP.

This paper looks at the issue from the perspective of the economic value of poor people's knowledge. It is about the knowledge poor people own, create, and sell rather than about what they buy. It reviews a number of attempts to increase poor people's earnings from their knowledge, it provides summaries of these case histories.

[2] The argument in this and the following paragraphs are elaborated and documented in Finger (2002).

Case Summaries

Nelly Arvelo-Jimenez (2004): *Kuyujani Originario: The Yekuana Road to the Overall Protection of Their Rights As a People*

Carib-speaking peoples, such as the Yekuana, have inhabited the tropical forest of the Amazon and the Orinoco Basins for the past 4,000 years. The Yekuana share most of the behavioral patterns that characterize tropical forest cultures, particularly those related to the knowledge, understanding, and sustainable management of the tropical forest ecosystems.

Ms. Arvelo-Jimenez's study builds from the premise that the traditional knowledge of the Yekuana is a reserve of knowledge for alternative economic and social modes of living and ways of life. It reports an effort, in which she has been actively involved, to manage the interaction between the Yekuana and modern society in a way that preserves the indigenous culture—to conceptualize elements of modern society within traditional conceptions of life rather than to take on the perceptions and values of modern culture. Hers is a rare study that does not deal with poor people's IP within the legal and commercial conceptions of modern society; instead, it is about finding the Yekuana spirit in modern things rather than the modern spirit in Yekuana things.

Ms. Arvelo outlines the major incursions of modern society, some associated with attempts to exploit natural resources through large-scale mining and rubber plantations, and others with Christian evangelization. As the people attempted to avoid being impressed as plantation or mining labor, Yekuana settlements became widely dispersed. Futhermore, four decades of evangelization had provoked ideological differences between and sometimes within family groups. Takeover of their territory was an increasing threat, and the Yekuana had little capacity to resist.

Even so, 15 Yekuana villages were able to convene in three successive general assemblies and agree on the primacy of their Yekuana ethnocultural identity. They further agreed that beliefs that question this primacy were inimical to the defense of Yekuana territorial rights. In 1993, with technical support recruited by the Asociación OTRO FUTURO, the Yekuana started a program to bring their lives—in particular their dealings with the modern world—into closer harmony with their traditional view of the order of things. The program was informally named Esperando a Kuyujani. Kuyujani is their cultural hero, who at the beginning of time demarcated the lands which He left in trust to the Yekuana people. Once Kuyujani's teachings were assimilated by the Yekuana people, Kuyujani vanished. He left with His people the prophecy of His return. The program was registered as an Asociación Civil (non-profit civic association) in November 2001 under the name Kuyujani Originario.

In modern terms, the element that brought the Yekuana back together was the defense of territorial rights. The skill of the leaders to build the program on the traditional conception of the origins of their space and knowledge was a key factor in using this motivation to restore the traditional culture rather than to move further into the modern. Through oral history, the Yekuana were able to reconstruct all of Kuyujani's steps, taken when he was carrying out the original demarcation of Yekuana lands. From this oral history they carried out the physical demarcation of the borders of Yekuana ancestral territory, and by 2001 had completed a map that not only identified their borders but also

included cultural data, topographic features, historical and sacred monuments, and natural resources.

A parallel effort put together an archive of Yekuana visual images, crafts, medical knowledge, and so forth. This written and photographic record of Yekuana cultural heritage has become an important pedagogic tool in the Aramare school the Yekuana established. The school emphasizes the teaching of religion, ceremonies, dances and sacred music, playing of musical instruments, and oral history. Just as Yekuana culture and traditional knowledge were becoming an incomplete chapter in the lives of younger generations, the school became the center for their revitalization. The teachers there are wise old specialists in oral history, religion, and the ancient ways. Their role in the school is helping to restore the status that elders and wise men once had in Yekuana society. Within the context of Yekuana culture, the school also offers workshops in modern matters such as ecotourism and indigenous rights as provided for in the constitutions of several South American countries.

The archives are also a base for defending Yekuana IP in the modern world, although Ms. Arvelo deals minimally with this dimension. Though many contacts between the traditional and modern worlds have engendered apathy and even disdain for traditional ways, through the Kuyujani Originario Program the Yekuana have assimilated knowledge of the external world in a way that has strengthened their appreciation for their own cultural heritage. The program has become a model that many other Amazonian indigenous peoples are trying to adapt to their particular geographical, social, and cultural realities.

Ms. Arvelo notes that when the political and economic interface between modern and traditional is handled by persons drawn from the modern world (government agencies or NGOs) they often operate within the modern rather than the Yekuana perception. The situation improves markedly as people from traditional societies take up these responsibilities, for example, as they did through an organization called the Coordinating Body of Indigenous Organizations of the Amazon Basin or Coordinadora de las Organizaciones Indígenas de la Cuenca Amazónica (COICA). She identifies two tensions that remain, however. First, dealing with outside economic and political agents requires unity among traditional peoples, but indigenous political systems in the interfluvial areas are decentralized and resistant to the delegation of local power to a centralized agency. Leadership in traditional communities has more the spirit of continuing customary modes of life than adapting to new ones. Second, even leaders drawn from traditional peoples—particularly when working within an organization responsible for several traditional communities—sometimes "seem to lean more on the national and non Indigenous axis of power" (Ms. Arvelo's phrase). They work within the modern conception of their responsibilities, and they see their status and ambitions as their modern colleagues see theirs—in the modern rather than in the traditional world. They fail to communicate the link to the modern world in a way that enables the indigenous peoples to be active participants in shaping the link.

Several lessons emerge from this experience. One is that creating a record of the Yekuana's property that will serve them in their dealings with the modern world can be done in a way that strengthens rather than weakens indigenous culture. A complementary lesson is the need for an active program to maintain and build on indigenous culture. The momentum of the interface is more toward the modern world, but Yekuana experience

demonstrates that, creatively managed, the dynamic of the indigenous culture can be maintained.

Maureen Liebl and Tirthankar Roy (2004): *Handmade in India: Traditional Crafts Skills in a Changing World*

Handicrafts provide a modest livelihood to large numbers of poor people in India, particularly to the rural poor. Currently, about 9.6 million people earn about US$3.3 billion a year, or just under US$400 per person. The part-time rural nature of much crafts activity complements the lifestyles of many craft workers and provides supplementary income to seasonal agricultural workers and part-time income to women. Engaging in this type of work often provides the means for people to remain in their traditional villages rather than migrate to the city.

Handicrafts have value beyond their capacity to generate income. India's myriad craft traditions and living craft skills are rare and irreplaceable resources, generally acknowledged as living links to the past and a means of preserving cultural meaning into the future. Both within India and without, large numbers of connoisseurs avidly collect examples of specific craft genre. Numerous scholarly treatises and expensive coffee-table books have been written on various craft forms.

Though the authors' motivation is to maintain and advance such art and improve the situation of talented artists living in poverty, they recognize that in the natural evolution of societies it is neither possible nor desirable to preserve every single piece of the past. Except in a museum setting, no traditional craft skill can live on unless it has a viable market.

The study looks into two possible ways to improve the situation for artisans:

- To increase the income of crafts producers. The prerequisites are adaptation of skills and products to meet new market requirements and improvement in market access and supply.
- To sustain the traditional skill base and protect the artisans' traditional knowledge resources. The priority in this area is development of appropriate IPR legislation and implementation.

Artisans in India face the same IP problems as in other developing countries: cheap knockoffs, extensive copying among artisans, artisans who pass along (and sometimes sell) designs belonging to a client, and buyers who have a sample designed and produced in India, then manufactured in bulk somewhere else.

People in the crafts business are pessimistic about obtaining design and process protection through enforcement of patent and copyright laws by the Indian government. The authors interviewed many dealers, manufacturers, and exporters on the matter, and not one expressed optimism. The entire system of legal enforcement in India has problems, and these problems are unlikely to be overcome for the sole purpose of protecting crafts ownership.

Problems with enforcing ownership are particularly complex given what the artisans themselves accept as norms of behavior. Copying among artisans is a long-established tradition. Artists acquire their skills by copying.

Among successful artisans, maintaining secrecy is the first option for protection. Most cope by guarding every stage of the process as closely as possible, prohibiting

photography, and avoiding such things as catalogs and extensive web displays. Some crafts communities go so far as to guard the processes from daughters in their families. As one artisan explained, "The girls get married and leave us. We cannot take the chance that they will take our secrets with them."

Adapting skills and products to new market conditions offers real possibilities, but commercial realities do not paint an optimistic picture for all artisans. Take, for example, weavers of everyday garments. In the past, wrapped, unstitched cloth was the basic mode of dress throughout the country (the woman's *sari* and the man's *dhoti*). The local weaver was thus an important member of the community and his economic well-being was assured. Many women today prefer the brilliant chemical colors, novel synthetic texture, and low price of machine-made *saris*, and many are shifting to tailored clothing. Throughout India, women still prefer *saris* for formal and ritual occasions, and there will always be a market for the exclusive (and often expensive) high-end woven *saris*. But the livelihood of the multitude of local weavers has disappeared.

Upscale markets offer more optimistic examples, one of which is the designer Ritu Kumar. In the 1970s, she revived a traditional form of embroidery done with silver and gold wire to create fine evening and bridal outfits. In time she expanded into other traditional crafts, such as other forms of embroidery, mirror work, and handblocked prints. At first she incorporated these into traditional Indian outfits but she has since moved into fusion and Western clothing, as well as into accessories and home decoratives. Today, Ritu Kumar has boutiques throughout India as well as in London, and she is an international presence.

Ritu Kumar has been the inspiration and model for a new generation of designers who see traditional craft skills as the foundation for a contemporary Indian design aesthetic. One group is working with traditional palm-leaf manuscript painters from the eastern state of Orissa, teaching them carpentry and opening their eyes to the ways in which their paintings can be incorporated into fine furniture. In the southern Indian state of Kerala, sensitive development of "backwaters tourism" has saved the *kettuvallom* and its makers. The *kettuvallom* is a type of boat that was originally used for cargo transport and is now used as private floating hotels. They have become fashionable with high-end international tourists.

At the same time, many producer groups have failed, unable to overcome the factionalism, patronage, nepotism, and corruption that are also traditional.

As for the distribution of benefits between artisans and the designer/entrepreneur, many of the designers see the artisan as a partner, regard their work with some idealism, and accept responsibility for equitable sharing of returns. Others do not. The most committed try to work with artisans in their traditional settings, but the demands of economic survival often require artisans to edge into the modern world, for example, to relocate to centralized workshops in cities.

Perhaps the identifying characteristic of the successful operations is leadership, often from an individual, who combines mastery of modern commercial skills with respect and affection for traditional artistry and traditional artists.

The study illustrates that many people engaged in commercial activities to help developing country artisans earn more from their artistry are motivated by their love for the art, their concern for the artists, as well as by the opportunity to profit from their

work. The effective ones are market accepting; they realize that except in a museum setting, no traditional craft skill can be sustained unless it has a viable market.

Finding commercial applications of traditional artistry in clothing, furnishings, and so forth is a critical form of entrepreneurship.

The lack of enforcement of IPRs in the domestic economy orients activity toward foreign markets where such protection is available, or toward the high end of the home market. Here the artist is protected from unauthorized copying by the uniqueness of his or her skill and the appreciation of his or her customers for the objects that skill can render.

Ron Layton (2004): *Enhancing Intellectual Property Exports through Fair Trade*

A cloth doll that would bring no more than 25 cents if sold in the Andean village where it was sewn might bring US$20 in a shop in New York. The fair trade movement was sparked by concerns that when such products are sold in industrial country markets the Andean seamstress receives no more than 25 cents, and the difference is absorbed by traders and retailers. Fair trade importers (known as Alternative Trading Organizations, particularly "Northern ATOs") are intended to operate at sufficient profit levels to sustain themselves while sharing with poor producers the rents implicit in the differential between market prices in rich and poor countries. Two such organizations, Ten Thousand Villages (U.S.) and SERRV International (U.S.), began in the 1940s and remain viable, demonstrating long-term business sustainability.

Northern ATOs partner with Southern ATOs, which are generally organizations of growers or artisans. Northern ATOs contract with developing country ATOs that meet criteria such as transparency in financial operations, efficient management for reasonable profits, fair returns for individual producers, and fair working conditions. The key element of fair trade is the development of respectful, long-term relationships with marginalized producers. These relationships include in various combinations contracts for annual supply, fair prices, advances against future production, training for producer skill development, and provision of market information. Paul Myers, CEO of Ten Thousand Villages, considers that sustained purchasing from poor producers is a larger factor in poverty reduction than the higher prices paid by Northern ATOs. The longer-term relationships with the ATOs allows poor producers to manage their family life more effectively, for example, to budget to send children to school. Fair traders attempt to set a standard that suppliers might also demand from conventional businesses and to demonstrate that a business that abides by such a standard can be economically viable.

Taking advantage of opportunities in the market for IP (in the "content industry") involves skills different from those necessary for the production and marketing of commodities—products that embody minimal IP value. Often, a handicraft product that sells well when introduced by Ten Thousand Villages or SERRV is quickly followed by a machine-made copy distributed by a mass retailer. As a consequence, the ATO has only one opportunity to address the market: when the product is first exposed.

The Korean animation industry provides an example of a developing country industry that has not succeeded in IP markets. Over the past 30 years, Korean animation companies, through subcontract production for foreign companies, have built up world class production capability and excellent design skills. As production companies, they earned recognition as among the best and most reliable in the world. In the more recent past several Korean subcontractors created their own products, aiming to capture the

rents available in international markets from ownership of successful animated shows. The quality and creativity in these speculative productions was high, but the Korean companies had no success in placing them with major worldwide animation buyers such as Warner Brothers, Canal Plus, and the Cartoon Network. The Korean animation industry remains a "manufacturer" of content industry inputs and is now subject to fierce price competition from manufacturers in China and India.

In the content industry, legal and commercial skills are closely intertwined. The work done by agents, brand specialists, and so forth is more one-off in nature than the production and even the marketing of commodities. LightYears IP is an ATO set up to specialize in the marketing of developing country IP. This marketing aimed initially at industrial country markets, where IP instruments already exist. Moreover, that is where the big money is, and industrial country markets are open, with few tariff or nontariff barriers to IP exports. Existing fair trade importers support the project, because they recognize that they have found it difficult to manage the IP elements in their marketing of handicrafts, including the patenting of designs, brand development, and design and style recognition.

LightYears IP will utilize initially a group of IP lawyers who have agreed to provide pro bono services to fair trade producers and their Northern ATO partners. As Layton's article points out, a sustainable solution will require that such services be paid from revenue generated. Like earlier ATOs, LightYears IP's success should provide an example to creative groups in developing countries as to how they can operate in industrial country markets as well as an example for industrial country buyers of their ideas.

An ongoing project to market Congolese-made toy autos in the United States illustrates how LightYears IP will work.

In February 2002, representatives of Volkswagen (VW) America approached Ten Thousand Villages in relation to a toy VW "Beetle" Ten Thousand Villages was importing and selling in the United States. The scale models of the Beetle were produced by a group of Congolese handicrafters. VW claimed certain rights in the design of the toy, as they are derived from VW's design of the actual car. VW asked Ten Thousand Villages to stop marketing the product, as it was not authorized by VW. In time Ten Thousand Villages negotiated a limited license that allowed it to sell out its inventory after payment of a small license fee.

The Congolese artisans had been making distinctive toys, made entirely from strands of wire. The Congolese artisans were from a tribe that traditionally has made articles from wire; their jewelry and women's accessories are perhaps their most familiar product. Just as VW has rights to the design of the automobile, a designer who creates his or her own interpretation of the automobile as a model or toy has rights under IP law. Legal enforcement is equally available in the United States to the interpreter as it is to VW.

Armed with this knowledge, Layton's group, LightYears IP, obtained advice from a branding specialist to look into the potential for a large order from VW for a design from the Congolese group. Perhaps VW America might use the Congolese models in its promotions, building both on the artistic value of the interpretation and on publicizing the business the order would create for a design group in a very poor country.

The capacity of the Congolese group is basically their design capacity. Their production to now has been by hand in small lots. If they obtain a large order they would need assistance to arrange for production to be handled by third parties and to ensure that they were compensated for their design elements. With a view to the long run, such an order might be a step toward building a market awareness of their design style and thus lead to further earnings from design.

The first lesson one can draw from Layton's study is that people familiar with knowledge-based industries see considerable potential in poor people's knowledge. A second lesson is that IP is a commercial as well as a legal skill. Having the appropriate laws and police in place is insufficient. Artisans not familiar with the use of *commercial* tools, such as brand names, trademarks, and copyrights, to manage the knowledge value of their product often find their successful products copied by large-scale producers who can make a living simply from the commodity value. However, command of the commercial skills to collect the value of their knowledge embedded in their products is within reach of the Congolese, and it will make a difference.

This and other cases summarized here illustrate the important role of good intentions. The fair trade organizations are market-accepting organizations; they accept that over the longer term commercial viability is necessary. At the same time they allocate returns beyond their costs to developing country suppliers, even when these suppliers do not have the market power or the market knowledge to command these returns in the marketplace. The fair trade organizations aim to provide a transition from artistry to commercial viability, and the effect will be to build a successful business community in the supplying country.

Frank J. Penna, Monique Thormann, J. Michael Finger (2004): *The Africa Music Project*

African music has significant business potential. It currently makes up about half of the fast-growing "world music" segment of recorded music, and music industry experts suggest that African music today may be at the jumping-off point where country music and rock and roll were in the United States in the 1950s.

Paul Collier, Director of the World Bank's Development Research Group, at the initiation of an investigation of this potential, pointed to an important psychological element. To maintain its own resolve to push forward and to prevent its more dynamic young people from going off to Europe or America, Africa has to see itself as succeeding in activities that have some glamour. The music industry has the potential to be an important symbol as well as a substantive element in bringing a poor society forward.

The scheme to support development of the music industry in Africa actually stems from the Bank's work to help developing countries make more effective use of the WTO. Spurred by increasing concern that WTO obligations on IP, standards, and other behind-the-border parts of economic regulation were not consistent with good development policy, a small group set out to find "real development projects" that would involve these policy areas.

The immediate objective of the work was project design, to help African musicians identify problems and bottlenecks and to prepare plans and proposals for investments, policy and legal reform, and so forth, to take on these problems. This information would provide lessons on the usefulness of the WTO obligation on IP to generate increased

earnings by local musicians—which we interpret as the development dimension of the issue. The work was financed by a small grant from the Bank-Netherlands Partnership Program (BNPP).

The intent is to include a half-dozen or so countries. Work has begun in Senegal, and a diagnostic study in Mali began in spring 2003 that will involve some of the people who have contributed in Senegal. Frank J. Penna, managing director of the Policy Sciences Center, Inc., has organized the work. We refer to the contributors informally as the WB–PSC team.

The work program on African music took to heart the new (when the work began) Bank emphasis on local ownership and empowerment of local stakeholders. As soon as the relevant government ministries had approved development of a strategy for the music industry, the WB–PSC team held meetings in Dakar with local musicians to invite them to explain their problems and to suggest solutions.

The musicians came forward with a long list of complaints. We repeat here a few of those listed in the study:

- Most Senegalese musicians make their living from the local market. Of some 30,000 musicians, perhaps a dozen derive income from foreign sales.
- Piracy of local music is rampant. Cassettes sold locally are quickly counterfeited, and radio stations play the music without paying royalties. Most musicians are unaware that there are laws to combat such piracy, they do not know how to use the laws, and they do not have the resources to engage lawyers to represent them.
- The local collection agency is ineffectual. Pirates have more resources at their disposal and better connections with influential politicians than does the collection agency.
- The tax burden is disproportionate, for example, as imports, musical instruments are treated as consumer goods rather than as producer goods, and the rate of collection of taxes on concerts/performances is higher than the rate on economic activity elsewhere in the economy.
- There is little business infrastructure—there are few managers or administrators in the music field. The few recording studios are able to charge monopoly prices.
- Live performances are a major source of income but performance venues are expensive. Because musical instruments and sound equipment are expensive, they often belong to the hotel, bar, or concert hall. Musicians must kick back a significant part of their earnings for use of the instruments and equipment.
- Musicians who enjoy success in the international market produce and record their music in foreign studios; thus, their success does not provide jobs for sound technicians in Africa.

"Big fish eat little fish" is how Africans describe the economic structure of the music industry. Financial institutions in Africa will not lend to the music industry, and rampant piracy and weak collection societies make the collection of royalties problematic. Elite musicians or otherwise capitalized individuals who have their own recording studios pay local composers and performers on a work-for-hire basis. When the workday is done the output belongs to the hirer, as with working in a factory or contributing a chapter to a scholarly book. (Usually a contributor to a scholarly book receives an honorarium upon delivery of his or her contribution, while the copyright for the book rests with the

publisher.) Because the collection societies that are supposed to collect royalties for performers and composers rarely do so, the little fish hardly have an alternative to selling their songs to a publisher/recording company for a single up-front payment. The big fish then sells the song on the international market through his or her own record labels or through foreign multinational record companies.

The Senegal Musicians' Association already had on its drawing board a development plan for the industry. The plan follows closely the problems outlined above. From the initial BNPP funding the team provided technical support to develop operational proposals for the various elements in the plan. The initial BNPP grant also provided legal expertise to support the association's input into the government's reform of copyright regulations and of the collection society. Spurred by the government's interest and by the activities of the Musicians' Association, the collection society has become more dynamic. It has taken legal action to force radio stations to pay royalties; it has also initiated a system to combat local piracy by providing difficult-to-counterfeit stickers to attach to cassettes and disks on which royalties have been paid. The sticker system will help to identify counterfeit products; its success of course depends on the rigor of the police and the courts to enforce the law.

The government of Senegal is now preparing with the Bank components for a tourism industry project loan that will address some of the investment and training elements in the music industry development plan as well as provide additional support for legal and institutional reform. Embedding this work in a tourism industry project will help to keep it focused on providing facilities in Senegal—to deepen the music industry to include the behind-the-stage infrastructure that will multiply the number of jobs provided. As the local music industry develops, more Senegalese artists should gain international recognition, but the persons responsible for the project realize that one cannot pick the winners ahead of time. Even if the development of "stars" was the objective, the program would have to provide broad support to succeed.

The most forward-looking element in the overall plan is for an Internet-based distribution system for African music. An African musician plays a song in an African studio. Computerized equipment records the song, creates the records for his or her copyright, and mounts the song into an encrypted dot.com facility that listeners around the world can access. As a listener downloads or plays the song, his or her bank or credit card account is automatically debited, and the musicians' account automatically credited. Such a system, experts insist, is within the bounds of present technology.

This experience teaches that a poor country will not find the development dimension of IP in its TRIPS obligations. All but a dozen or so of Senegal's 30,000 musicians earn a living in the domestic economy. TRIPS could be the basis for foreign music companies (through their governments) to press the Senegalese government to more rigorously defend their interests in Senegal, but the benefits from this effort would not spill over to local musicians.

As a related lesson, the development dimension of the music industry is much broader than the legal dimension. The scope of problems the musicians identified and the scope of the development program they outlined make the point. Even within the legal dimension, the reforms the TRIPS requires will not by themselves undo the "big fish eat little fish" structure of the industry, nor will they provide musicians the commercial skills needed to manage the IP dimensions of their business.

Empowerment of the poor musicians—getting the government to recognize them as a political force—is part of the remedy. Attention to ownership of reform by local stakeholders has been productive. A dynamic program of reform and development has been initiated for a minimal amount of money. Another part of the plan is to create alternative opportunities in the local economy. An important dimension is the positive impact on African morale that further success in music will bring—further enhancing the sense of "can do" that Africans have for this work.

Betsy Fowler (2004): *Preventing Counterfeit Crafts Designs*

In many poor countries crafts production is a source of income as well as a vehicle to preserve indigenous art and culture. Artisan handicrafts represent an estimated US$30 billion worldwide market. With globalization, industrial counterfeiting is common and often displaces the livelihood of artisans. For example, products that mimic southwestern Native American basketry are manufactured in Pakistan, and companies in Romania manufacture and sell knockoffs of Taiwanese knockoffs of Native American jewelry. Artisans cannot make a living selling at the prices at which machine-made articles can be sold.

Standard legal mechanisms do not always protect artisans. For example, some European designers toured Peru and subsequently used traditional Peruvian designs in their jewelry collections. The Europeans registered the designs in Europe, and on that basis prevented certain sales of Peruvian-made jewelry in Europe.

Fowler however,spends more time with the positive side of the story. Ms. Fowler warns that abuse is rampant, but she presents several examples in which standard IP mechanisms have helped to protect artisans.

Australia

The use of reproductions of traditional aboriginal designs to decorate mundane products for the tourist trade, such as key rings, T-shirts, and drink coasters, is a matter of increasing concern to aboriginal peoples. Aboriginal customary law provides for collective ownership of paintings and other artistic works, but that collective ownership does not carry over into Australian law. Even so, Australian courts have found ways to defend aboriginal artistic creations against exploitation from outside the aboriginal community while at the same time recognizing the spiritual and sacred significance of the images and respecting the community's sense of communal ownership.

Ms. Fowler reviewed a case that involved the importation of carpets that reproduced without authorization designs from aboriginal artists. The court recognized the aboriginal artists as owners of the designs under Australian law but made a collective award of damages rather than awards to individual artists. This left the aboriginal community to distribute or otherwise use the award as it considered appropriate. Furthermore, in its awarding of damages the court took into account the culturally inappropriate use of the designs.

Another informative case involved a picture titled "*Magpie Geese and Water Lilies at the Waterhole,"* painted by Mr. John Bulun Bulun, an aboriginal artist. The R&T Textile Company reproduced the picture on a T-shirt and offered it for general sale. The court in this case recognized Mr. Bulun Bulun as the owner of the design under Australian law but in addition ruled that Mr. Bulun Bulun bore a fiduciary duty to his aboriginal

community (a) to guard against infringements of copyright that would misuse the ritual knowledge depicted in the painting and (b) to consult with other traditional owners in doing so. Mr. Bulun Bulun had in this case taken what the court considered appropriate action, and the court did not explore further the characteristics of the fiduciary relationship.

A strong NGO, the Australian Institute of Aboriginal and Torres Strait Islander Commission (ATSIC), is another factor contributing to the successes the aboriginal communities have achieved.

American Indians

The Native American community in the United States has been active in establishing both state and federal legislation to protect their arts and crafts. U.S. law requires Indian-style imported products to be indelibly labeled with the country of origin and imposes penalties for marketing non-Indian-made goods as Indian made.

Even so, many devices are employed to evade the law. A simple one is to paste the seller's label over the mark of origin. In a more sophisticated scheme, ingenious people set up a town name "Zuni" in the Philippines, then stamped goods with the label "Made in Zuni." (The Zuni are a North American tribe whose crafts are highly valued.) Ms. Fowler also reports cases in which Indians are employed for final assembly of foreign-made parts that are then sold as "Indian made."

The U.S. Patent and Trademark Office (USPTO) advises tribes to draw up and register lists of tribal symbols. The registration helps to prevent use by nonmembers, and it is a tool to push for cancellation of existing trademarks that incorporate Native American symbols.

NGOs, often in cooperation with tribal or artisans' associations, have been active in the United States and Canada to combat deceptions. They have lobbied extensively and have helped Native American tribes to develop certificates of authenticity. The impact of such certification depends of course on buyers being aware that such a system exists, and also on their concern to purchase only authentic items. Canvassings by NGOs have found widespread lack of awareness of both the laws and certification systems to protect Indian-made articles—both among buyers and among Indian artists.

Latin America

Constitutions in several Latin American countries mandate the protection of the rights of indigenous cultural communities and indigenous peoples. These regulations aim to prevent outsiders from registering patents and copyrights based on indigenous people's ancestral knowledge and genetic resources, while at the same time providing these people protection within their communal conception of ownership. Panama, for example, has set up a Department of Collective Rights and Forms of Folkloric Expression to grant and administer collective ownership copyrights for indigenous groups and to prevent registration by any outside party. The National Crafts Department of the Ministry of Commerce administers a system of authenticity stamps, and Panamanian law prohibits the importation of any products that resemble indigenous crafts without the permission of the indigenous community. This legislation is the result of efforts by and on behalf of the Kuna people to stop the sale by outsiders of copies of *molas*. The Kuna are a Panamanian

indigenous community, and the *mola* is a traditional dress that has proved popular with tourists.

Ms. Fowler reports on efforts by government agencies, NGOs, and artisans' groups in Peru, Bolivia, Colombia, and Venezuela to develop national registries of crafts and to advance the use of marks of authenticity.

Bobbo Ahiagble in Ghana

Ghanaian law provides for the registration of certain textile designs and hence their protection through standard IP mechanisms. *Kente,* however, and several other well-known designs of a particularly communal nature cannot be registered. There was no legal recourse then for the Ghanaian *Kente* artist, Gilbert "Bobbo" Ahiagble when J.C. Penney reproduced his designs on bed sheets and marketed them to the American public.

Louise Meyer, who founded Africancrafts, a nonprofit organization to help preserve the tradition of *Kente* cloth weaving, has closely followed Bobbo's career. According to her, Bobbo worried years back about copies, but as he realized that his weavings are of higher artistry and technical quality, he concluded that his identity is his protection against copies. He uses unique labels to distinguish his creations and his status is such that all of his weavings are produced and sold to special order. Any buyer in the secondary market can consult his records on questions of authenticity.

In her conclusions, Ms. Fowler points to the importance of combined efforts of networks of indigenous populations to bring the counterfeiting problem to the forefront. Networks and associations have proved to be effective tools for pooling resources for lobbying, awareness training, and enforcement. She notes that artisans need training on IP tools and how to use them. The cost of using these tools, however, is high relative to the incomes of artisans, and unless such tools are provided on a pro bono basis, they are not likely to be attainable.

Kerry ten Kate and Sarah A Laird (2004)*: Bioprospecting Agreements and Benefit Sharing with Local Communities*

Global sales of pharmaceuticals derived from genetic resources exceed US$75 billion a year. Add in other health care products, agriculture, horticulture, and biotechnology products and the total comes to more than US$500 billion a year. Many of these products link back to knowledge that traditional communities possess on how to use natural materials as medicines, foods, and preservatives, yet these communities have received minimal revenues from such sales.

The past quarter century has witnessed considerable political action to help traditional communities obtain a better deal from the commercial application of their knowledge and of genetic material found in the areas they occupy. (The following is an example to explain the meaning of traditional knowledge and genetic material: the San bushmen of the African Kalahari have long used the Hoodia plant to stave off hunger and thirst on hunting trips. The Hoodia plant is genetic material; to use it and how to use it are traditional knowledge.)

The movement has brought forward three basic principles on commercial access to genetic materials and traditional knowledge: prior informed consent, mutually agreed terms, and benefit sharing. The principles have found expression in a number of political outputs, ranging from international agreements such as the Convention on Biological

Diversity (CBD) to declarations and statements of demands from indigenous people's organizations.

A number of agencies have done extensive work to devise ways to apply these principles. For example, extensive study at the World Intellectual Property Organization (WIPO) has led to several concrete programs, such as one to set up an electronic database of clauses for contracts on use of genetic resources. Researchers have developed a number of codes of ethics and research guidelines through professional societies such as the International Society of Ethnobiology. A number of bioscience companies have developed corporate policies that set out their approach to dealing with traditional knowledge and particularly with how they will comply with the CBD.

The product "Jeevani," which is based on the traditional knowledge of the Kani in India, illustrates the commercial as well as the scientific results that people involved in this work hope to achieve.

The Kani are an ethnic group of some 16,000 people who live in southwestern India. Working primarily with three Kani consultants, the Tropical Botanical Garden and Research Institute (TBGRI) of India learned of the antifatigue properties of a wild plant. From this plant the TBGRI developed the drug "Jeevani." When the TBGRI transferred manufacturing rights to Aryavaidya Pharmacy Coimbatore Ltd., TBGRI agreed to share 50-50 the license and royalty income with the Kani. It took a while for the various Kani clans to agree, but in time they established the Kerala Kani Samudaya Kshema Trust to manage this income.

Through 2001, the Trust Society—fully managed by Kani—has received 1,350,000 Indian rupees (IRs; about US$30,000) of royalties and fees. This income has been invested in an interest-bearing account, and only the interest from the account is expended.

The Trust Society has funded various self-employment schemes for unemployed Kani youth and has provided special financial assistance of IRs 25,000 for the welfare of two tribal children whose mother was killed by a wild elephant. It also paid IRs 50,000 to the three Kani consultants who provided the knowledge initially to TBGRI.

As sales of "Jeevani" have grown, so has demand for the raw material. The Forest Department has now agreed to permit the Kani to cultivate the plant and sell the raw drugs in semiprocessed form to the manufacturer. This cultivation project, coordinated by the Trust Society, will provide additional income to the Kani.

The traditional knowledge of the Kanis would not have been suitable for a patent. The TBGRI research team isolated the active ingredient in the plant, developed an herbal formulation suitable for medicinal application, and patented this discovery. As India did not have legislation that protected the tribe's knowledge, the tribe would have had no legal means to claim a share in the revenues from the patent. TBGRI—established to support bioprospecting and to look out for the interests of indigenous communities—provides an alternative model to the strictly legal approach followed in the West.

There are few other examples of such commercial success. Through the International Cooperative Biodiversity Group's (ICBG) first five-year cycle ending in 1997, the group had screened more than 7,000 natural samples and from these had identified about 35 priority leads. The ICBG also produced and circulated a number of scientific reports and created several new databases and software programs for accessing and utilizing these databases. The ICBG's activities have provided extensive research experience and

training for persons from the host developing countries as well as the sponsoring industrial countries, but the final report on this cycle indicates no commercial earnings from the any discoveries. Through its second cycle the ICBG has produced two patents relating to the tropical diseases leishmaniasis and malaria. In the opinion of ICBG's management, these patents are not likely to generate financial benefits.

In recognition of the long odds against discovery of a profitable product, and because getting a new product to the market often requires 10 to 15 years of development and testing, the ICBG programs emphasize income derived by local people from the process of exploration and discovery rather than on the promise of huge royalties that may never materialize.

Though companies continue to use ethnobotanical knowledge as part of discovery programs, scientific and technological developments in recent decades have shifted demand toward other inputs. New scientific technologies synthetically generate numbers of first-stage compounds, computerization provides faster ways to screen out the ones that merit further development, and new techniques provide better ways to transform the new compounds into effective products. In health care, research dollars are moving toward approaches that focus largely on human material; drug design then employs synthetic chemistry to reverse-engineer from the human material. In this environment, natural products are often too slow, costly, and problematic.

Product discovery programs use traditional knowledge to help identify natural products that have potential; thus, interest in traditional knowledge depends on interest in natural products as first-stage inputs. Much traditional knowledge, however, is already in the public domain and can be sourced through publications. It is rarely sourced from interviews with local and indigenous communities themselves in such a way as to require prior informed consent and to trigger benefit-sharing negotiations.

ten Kate and Laird's work documents that a growing number of national laws and international guidelines require the acquisition of prior informed consent and the sharing of benefits with local communities when researchers seek access to genetic resources on their land or to their traditional knowledge about those resources. The scientific and the business communities have put in place programs to identify promising genetic resources in developing countries and to ensure that the communities from whose land the resources originated share in any commercial rewards that might result. The scientific output has been significant, the scientific and business experience developing countries have obtained has been valuable, and a number of people in developing countries have been employed in the field and in laboratories. But commercial returns from new products have been modest—far short of making the programs self-sustaining on commercial grounds.

Philip Schuler (2004): *Biopiracy and Commercialization of Ethnobotanical Knowledge*

Schuler takes up the concern that poor people are somehow "shorted" by companies that register patents based on traditional knowledge and thereby collect revenues that should go to the poorer communities. He reviews several recent incidents that are often cited as illustrative of the problem, identifies their key dimensions, and from this analysis suggests possible reforms.

Biopesticides from the Neem Tree[[c]]

The neem tree is mentioned in Indian texts written more than 2,000 years ago. Products made from it have many uses, including for human and veterinary medicines, cosmetics, insect repellent, and fungicide. There are many patents on neem products, in India as well as in the United States and Europe.

The present controversy focuses on U.S. and European patents on pesticides made from neem seeds held by the specialty chemicals company W.R. Grace. The major element of novelty of the patented pesticide was that it has a shelf life of several years. In contrast, Indian farmers traditionally soak neem seeds in water and alcohol, and the resulting emulsion begins to biodegrade immediately—it must be used within a few days or it is no longer potent. Defenders of the patent also pointed out that it does not prevent Indian farmers from producing and using their traditional extracts.

In 1993 P.J. Margo Private Ltd. (W.R. Grace's Indian partner) began producing and marketing stabilized neem biopesticides in India. Public demonstrations broke out against this joint venture, and a collection of advocacy groups joined together in 1995 to challenge the European and U.S. patents on the grounds that the product/process was not novel—Indians had been using neem products in the same fashion for centuries. The European Patent Office revoked the patent there, but the U.S. patent remains valid.

Schuler's key finding is that the plethora of patents on neem products do not prevent Indian farmers from producing and distributing traditional extracts, nor do they prevent Indian chemical companies from producing and selling stabilized extracts. Several Indian companies sell neem-based products in world markets, and several have distribution facilities or production subsidiaries in the United States. Indian farmers have also benefited. With burgeoning use of neem products, the price of neem seeds has risen over the past 20 years from IRs 300/ton to more than IRs 8,000/ton.

Turmeric[[c]]

Turmeric has long been used in Asia and elsewhere as a spice and coloring agent. It also has medicinal uses. In traditional Indian Ayurvedic medicine, for example, it is used to treat a variety of ailments.

In 1995, Suma K. Das and Har P. Choly, two scientists working at the University of Mississippi Medical Center, were granted a U.S. patent for the use of turmeric in treating wounds. The New Delhi–based Council for Scientific and Industrial Research (CSIR) challenged the patent, citing Ayurvedic texts as evidence that it was not novel. The USPTO eventually ruled against the inventors. As in the neem example, Schuler finds that there are many U.S. patents, including several patents for medical uses, that to a nonexpert appear similar to traditional uses. The patent holders are in large part Indian scientists, some working in the United States, some in India. Schuler cites a stated objective of an Indian organization to pursue foreign patents on traditional Indian knowledge. The major lesson he draws from the story is that developing country inventors can use industrial country patents as a commercial instrument. According to newspaper accounts, CSIR challenged the turmeric patent partly for symbolic reasons and partly to acquire experience with U.S. patent reexamination procedures.

Basmati Rice[[c]]

Since the 1950s the governments of India and Pakistan have been supporting work to develop improved strains of basmati rice and have taken steps to protect the reputation of basmati by limiting commercial use of the name to certain varieties cultivated in certain areas.

In the 1980s RiceTec, a U.S. company wholly owned by a European, began work to develop basmati strains that would grow profitably in the United States—traditional strains would not. The company applied for a broad patent on basmati varieties, and the Indian government objected. In the end the USPTO granted a patent only on the three new varieties RiceTec had developed. RiceTec's U.S. patents cannot block South Asian cultivation of traditional strains or strains they have developed. Nor does it prevent Asian researchers from developing additional varieties. Indian researchers have since developed the world's first hybrid strain of basmati rice.

A patent is only one element in commercialization and not always a necessary one. The California Basmati Rice Company has neither patent nor trademark protection on its Calmati strain of rice.

A second controversy arose over the use of the words "basmati" or "jasmine" to market rice. In response to a petition in the United Kingdom, the U.K. Food Standards agency issued labeling regulations limiting "basmati" to those varieties/locations that the Indian and Pakistan authorities recognize as basmati. The U.S. Federal Trade Commission has ruled that U.S. regulations treat these terms as descriptions of aromatic rice, wherever it is grown. The WTO agreement on IP provides extensive protection to geographic indicators for wines and spirits, and extending similar protection to developing country products is on the table at current WTO negotiations.

Yellow Beans[[c]]

The controversy over yellow beans involves a Mexican strain, "Mayacoba," and a U.S. strain, "Enola." Mexican farmers have been growing yellow beans at least since the time of the Aztecs. More recently, Mexican agronomists developed a variety of yellow bean that they registered in 1978 as "Mayacoba." There is a substantial market for such beans in the United States, principally but not exclusively among Mexican immigrants. Mexican farmers and U.S. importers have made substantial investments in these beans to serve the U.S. market.

In 1999 a Colorado agricultural company obtained a certificate of patent and plant variety protection for the Enola variety, one the company had developed from beans originally from Mexico. The Colorado company has since licensed Enola bean production to a number of U.S. growers and processors. It has also initiated legal action against several importers, alleging that Mexican farmers have been raising Enola beans and selling them as Mayacoba. Countersuits have been filed, and the legal dispute has considerably slowed Mexican exports. U.S. Customs officials stop bean shipments from Mexico to search for Enola beans. Superficially, it is difficult to distinguish one variety from another. The International Center for Tropical Agriculture (CIAT) in Cali, Colombia, claims that it maintains some 260 bean samples with yellow seeds, and six are substantially identical to claims made in the Colorado company's patent.

It is possible that the Enola variety is superior to the Mayacoba and that Mexican farmers have been using it without authorization. If so, the normal justification for IP

protection applies—to encourage innovation. The social justification depends of course on the Enola variety being substantially better in some nutritional or economic way, for example, greater yield per liter of irrigation water. A distinctive color might satisfy the legal standard for novelty without satisfying the social standard for improvement.

Even if the Enola variety turns out in the end not to be sufficiently novel to merit IP protection, the legal process itself is a powerful commercial instrument that the Colorado company has used to gain advantage over its competitors.

In industrial countries, we learn from Schuler's work, discipline over the granting of patents depends more and more on challenges from other producers rather than on careful examination by the patent-granting authority. This tends to leave consumer interests underrepresented because registering a patent is too easy. (The explanation is the familiar concentration of producer interests relative to consumer interests that helps to explain import protection.) As to remedy, encouraging increased action by NGOs may be more effective than attempting to provide additional resources and additional authority to regulatory agencies.

Daniel Wüger (2004): *Prevention of Misappropriation of Intangible Cultural Heritage through Intellectual Property Laws*

In this era of globalization, indigenous communities find themselves face to face with alternative cultures in increasing frequency and intensity. While some communities welcome this development, others do not. Uses of their music, drawings, and other cultural expressions outside of their community might be offensive to them and they might completely oppose outside use—regardless of the compensation offered by outsiders. While other studies pay attention to the use of modern IP instruments to manage the commercialization of cultural property, Wüger's study pays particular attention to the issue of preserving cultural value, either by barring or by imposing conditions on outside use.

In traditional communities it is difficult to separate "art" from "technology." Household articles, tools, weapons, and medicines have cultural as well as technical meanings. Wüger analyzes a number of cases to examine the use of IP law as well as other laws to protect cultural property.

The pueblo of Santo Domingo case involved a newspaper photographer who flew over a pueblo in the southwestern United States and photographed a ceremonial dance. According to the pueblo's customary laws, the dance was sacred and had to be kept secret from outsiders. The photos, however, were published. The pueblo filed suit, alleging trespass, violation of the pueblo's ban on photography, and invasion of privacy. Members of the pueblo believed that the intrinsic value of the dance had been diminished—that it had been used as "nothing more than commercial entertainment for the white man." Though the loss could not be restored by postinjury remedies, the pueblo stopped further use of the pictures.

In this instance, Wüger reasons, it would have been difficult to apply IP law. The choreography of the dance was not fixed nor was an author identifiable; hence, for copyright purposes the dance is part of the public domain. Furthermore, the people of the pueblo could not seek protection as performers; in general, U.S. copyright laws do not afford protection to performers of uncopyrighted works.

Registration of such cultural expressions would make modern IP law more useful to protect them, but registration includes disclosure—exactly what the pueblo wanted to avoid. Where secrecy is not an issue, registration can be useful. Wüger describes the "Cultural Goods Registry" provided by Guatemala's Cultural Heritage Protection Law.

Protection of cultural values becomes particularly troublesome when the proposed commercial use of traditional knowledge is in a country different from where the indigenous community is located. A patent on a variety of the Ayahuasca plant granted by the USPTO raised a controversy over patenting a product that had major spiritual significance for a foreign community.

Ayahuasca is South American vine with hallucinogenic properties. It is used in traditional Amazonian rituals to produce a ceremonial drink; the drink is used to treat sicknesses, to contact spirits, and to foresee the future. The preparation and administration of the drink is strictly regulated by customary law, and the drink may be prepared only under the guidance of a shaman.

The patent holder obtained in the Amazon samples of a particular variety, brought it back to the United States, and claimed a patent on it as a newly discovered plant. The COICA opposed the patent on grounds that the plant was widely known in scientific literature (nonnovelty) and that the patent would violate the religious beliefs of South American indigenous peoples (nonutility). In response, the USPTO first revoked the patent but later reinstated it, on grounds that the variety discovered by the patent holder is not identical to specimens of Ayahuasca found in U.S. herbarium collections. U.S. patent law excludes the consideration of unpublished foreign sources when determining novelty. The USPTO did not address the question of whether the vine being a sacred religious symbol precluded its patentability. The patent does not, however, limit the traditional use of the vine.

Ethiopian practice illustrates another approach to protecting folklore. Ethiopia requires prior authorization by the Ministries of Culture and Information and payment of a fee for any reproduction or adaptation of folklore. The ministry has authorized the Musicians' Association as the agent to license the use of folklore music. Wüger explains a case in which one musician obtained permission from the Ethiopian Musicians' Association to use several songs—the Musicians' Association claiming authority on grounds that the songs were part of Ethiopian folklore. Another musician claimed that he had written the songs; however, the court denied him copyright protection. In making its determination, the court did not consider whether the adaptations that the second musician made of the traditional folklore songs constituted derivative works protected under copyright laws. The novelty value of the songs was captured by the regulatory authority rather than by the composer. The tradeoff here, Wüger points out, is that artists who are unable to protect their works will be unable to live from their profession—the same complaint brought forward by many Senegalese musicians in the Africa Music project.

In several other countries, as well as in Ethiopia, the protection of cultural property is assigned to a central agency. Wüger points out that legislation could assign authority directly to indigenous communities, provided that the communities have corporate or NGO status or otherwise have standing in the legal system.

The *Arogyapacha* incident, also described in the study by ten Kate and Laird, brings out a problem that can arise when protection of cultural property revolves on a

community decision. In this example, the TBGRI learned from the Kani people of the antifatigue properties of a wild plant and from the plant developed the drug "Jeevani." The TBGRI obtained a patent in India and helped the Kani people to set up a trust fund to which a substantial share of the royalties from the patent were assigned.

As to respecting the cultural values of the community, the Kanis do not constitute a cohesive community. Their families are scattered over a wide area, and the TBGRI interacted primarily with one group of them. Within that group, younger members of the tribe eagerly took part in the TBGRI project while the older generation regarded the knowledge as sacred and looked unfavorably on commercial use. A group of nine medicine men wrote to the chief minister of the district, objecting to the sale of their knowledge to outside companies.

The example illustrates not only a clash of culture, represented by young versus old; it also illustrates differences in who could step forward as owners or custodians of the knowledge: family versus family and medicine men versus the community at large.

The traditional knowledge of the Kanis would not have been suitable for a patent. A TBGRI research team isolated the active ingredient in the plant, developed an herbal formulation suitable for medicinal application, and patented that discovery. TBGRI was under no obligation under Indian IP law to share the benefits with the Kanis or to seek formal consent before starting its research project. The agency was, however, created to conduct research on possible applications of traditional biogenetic material and charged to look out for the interests of the indigenous communities where the material was found. This is thus an alternative way to advance the interests of poor people.

Wüger points out that legislation requiring prior informed consent of holders of traditional knowledge before it can be used by third parties would be a useful instrument is such situations.

Wüger concludes that many modern instruments can be used to protect the cultural values of indigenous communities, but the results will not always be satisfactory to all members of a community. He warns, however, against overprotection to the detriment of other cultural, social, or economic interests. As do Liebl and Roy, he concludes that an intangible cultural asset will be preserved only if the lifestyle embodying it provides reasonable economic prospects. In this regard, commercialization of certain aspects of intangible cultural property can contribute to the preservation of cultural heritage as a whole. Countries have to consider a holistic approach that combines the provision of legal tools with support initiatives.

Coenraad J. Visser (2004): *Making Intellectual Property Laws Work for Traditional Knowledge*

Visser reviews how modern legal instruments such as patent and copyright might be used to protect traditional knowledge. He begins by offering an intuitive sense of what we mean by the term "traditional knowledge." Drawing mainly on WIPO usage, he explains that the category includes traditional and tradition-based cultural expressions in forms such as stories, music, dance, artworks, and crafts, including symbols, marks, and other recurring expressions of traditional concepts. It also covers similarly traditional agricultural, medical, and technical knowledge.

Before going further, Visser offers a caution: Poorer countries are net importers of IP, and raising the level of protection they provide on *all* IP (as the WTO IP agreement requires) would mean a net outflow of hard currency.

Visser identifies two motives for protecting traditional knowledge. People in traditional communities, like people in modern communities, want protection that will help them to benefit from the gainful use of their knowledge. In addition, members of these communities often want to prevent use that is offensive to the cultural or spiritual meaning of the knowledge. Modern communities, too, object to demeaning use of social or religious symbols, but the line between the cultural/spiritual and the commercial/scientific is less clearly and perhaps less often drawn in traditional than in modern communities; hence, the cultural/spiritual motive may have more weight in traditional communities.

Patents

As to gainful use, Visser reports several instances in which industrial country patent offices have refused or revoked patents demonstrated to be based on traditional knowledge from a developing country. Many uses, however, do slip through the screen. He also reports a UN estimate that developing countries lose about US$5 billion a year in royalties from unauthorized use of traditional knowledge.

The screening of patent applications for traditional knowledge might be improved in several ways. One suggestion is a consent requirement for patentability. When it appears that an invention for which a patent is sought is based on the biological or genetic heritage of a traditional community, a copy of the contract affording access to the biological resources of the country of origin must be shown.

Databases of traditional knowledge help to protect them from unauthorized use. WIPO has set up the WIPO Portal of Traditional Knowledge to help users find and use such knowledge. Such databases facilitate demonstration that an alleged invention is not new. Professor Peter Drahos has suggested a further step, that a global collection society be established, perhaps under the World Bank. A collection society would be a repository for communities' databases and would facilitate contacts between companies and groups over the use of such information.

Visser also reviews the possible use of several other legal devices (such as trade secrets law) that might be used to protect traditional knowledge that has possible commercial application.

Many patent laws allow patent applications to be screened for uses that are culturally offensive. In New Zealand, for example, the Intellectual Property Office has guidelines for patents based on indigenous flora, fauna, and nonorganic materials that direct patent examiners to consider if the application is likely to have cultural or spiritual significance for the Maori. Where such application might be offensive to the Maori, applicants must be advised accordingly and given the opportunity to obtain the consent of the competent Maori authority.

Patents, however, are granted country by country, and the screening or consent requirement imposed in the country in which the traditional knowledge originated (for example, screening in New Zealand against Maori concerns) does not automatically carry over to patent applications in other countries.

Copyright

Legal protection has been sought for a variety of cultural expressions: paintings and traditional designs reproduced on carpets or T-shirts, music and stories transcribed or recorded, designs from handwoven textiles incorporated into mass-produced clothing, and many others. Such cultural expressions were sometimes photographed, transcribed, or recorded and then published for ethnographic purposes; the availability of such publications and recordings has facilitated unauthorized application.

The strongest advantage of copyright protection is that it transcends national borders. An expression protected in one country is protected in all signatories to the Berne Convention. Copyright normally requires a novel expression and an identifiable author, but problems of outside exploitation often involve existing knowledge that is shared by many people. Even so, copyright law often has been effectively applied. Visser outlines a set of "Model Provisions" developed by a United Nations Educational, Scientific, and Cultural Organization (UNESCO)-WIPO experts group to protect such expressions. Many developing countries have in place laws that take advantage of a Berne Convention special provision that allows for protection of expressions whose individual author cannot be identified.

Visser cautions, however, that with such protection the public domain shrinks, and further evolution of the art or craft is retarded. Other studies reviewed here (Wüger, Fowler) provide examples of application of mainstream copyright law to expressions within the traditional style that are different enough from preexisting expressions that they satisfy the standards for novelty of mainstream law.

The Digital Environment: The WIPO Copyright Treaty

The emergence of global information networks and electronic commerce raises a number of key issues in the field of copyright. Digitization expands exponentially possibilities for transmission, and also for unauthorized copying. In principle, an author has the same rights over use and distribution of his or her work through the digital media as through older media, but to protect works in this environment requires not only adaptation of legal structures, but also new technical devices such as encryption and software that limit copying. Visser reviews the guidelines for relevant legal structures provided by the WIPO Copyright Treaty of 1996.

Trademarks and Labels of Authenticity

Several countries use marks that designate products as coming from a particular community as an effective technique to protect against the manufacture and sale of indigenous artifacts by nonindigenous people at the expense of indigenous communities. An Australian NGO, for example, has registered with the government marks that identify traditional crafts from the aboriginal community. Distinctive packaging likewise can qualify for trademark protection and serve as a means to identify articles from a particular community. Such marks will help to raise the profile of genuine articles and will aid buyers so inclined to avoid buying counterfeit articles. Trademark law serves to prevent the use of the labels on nonauthentic articles; however, such marks do not make illegal the production or sale of counterfeit articles.

Trademark law can also prohibit the registration as trademarks of signs or symbols traditionally used by or distinctive of indigenous communities. Legislation proposed in

New Zealand would allow the trademark office to refuse to register a trademark when such use would likely offend a significant section of the community, including the Maori. A law already in effect in the United States empowers the USPTO to refuse registration of a mark that would bring into contempt or falsely suggest association with persons, institutions, beliefs, or national symbols. Native American tribes and other indigenous communities are protected by this law. The USPTO has set up a searchable database of official insignia of Native American tribes—the intent of the database is to prevent registration of marks confusingly similar to such insignia.

Visser concludes with a list of recommendations on the elements of a legal structure that facilitates protection of traditional knowledge.

Traditional Knowledge, Modern Knowledge, and Poor People's Knowledge

The category "traditional knowledge" includes traditional and tradition-based cultural expressions in forms such as stories, music, dance, artworks, and crafts, including symbols, marks, and other recurring expressions of traditional concepts. It also covers traditional agricultural, medical, and technical knowledge. "Indigenous knowledge" and "traditional knowledge" are more or less synonyms.

One characteristic is that such knowledge is handed down from generation to generation, usually as part of an oral tradition. Another is that its use is interwoven in a net of customary obligations and rights of the individuals and the community. Within indigenous communities, the practical and the spiritual/ceremonial dimensions of life overlap perhaps more than they do in modern communities. In addition, traditional knowledge suggests a sense of common or community ownership.

At the extreme, one might imagine a simple *analytical* model in which people in modern society and in a traditional community each view the origin and ownership of knowledge in a manner parallel with how they view the origin and ownership of tangible property. Consider a stereotypical community of hunter-gatherers. People in such a community are aware that many unseen plants and animals are alive in the wild. Provisioning oneself is a matter of acquiring these rather than of creating them. They conceptualize knowledge in a similar way. People in modern society perceive innovation or creativity as access to and drawing from a hidden stock of knowledge—or, to use perhaps an overly sophisticated phrase, drawing from a divinely inspired subconscious.

Modern intellectual property law recognizes "common knowledge" as the property of all—the "public domain." No one can obtain a patent or copyright for it. However, individuals can own *new* knowledge. The conception here is that knowledge, like cars or carrots, is *produced* through the efforts of people rather than taken from a stock that nature provides. The basic elements needed to claim a copyright or a patent are a creative step, an identified creator, and a basis to demonstrate that the claimant *is* the creator. In short, to gain ownership of knowledge, it has to be novel and it has to be yours.

The requirements for patents and copyrights are different. The law presumes that if you write a new story or compose a new song, it is yours. If it comes down to defending your ownership in court, there are standards for what "new" means. To demonstrate that the song or story is yours it is useful to have a written copy, particularly one with a verifiable date on it. It is even better if you had deposited a copy with someone the law

will trust, such as the copyright office. Registration makes it easier to prove that the property is yours.

You apply for a patent. If you demonstrate that your idea is novel, that it is yours, and that it has industrial application, you *receive* a patent from the government.[3]

From society's perspective, the rationale for allowing temporary individual ownership of new knowledge is that in time all members of society will gain. IP protection provides an incentive for creative acts and for progress. It adds "the fuel of interest to the fire of genius," said Abraham Lincoln.

Traditional knowledge can be a useful analytical concept, but Visser warns against overdrawing the distinction between it and modern knowledge. The cases presented in this paper suggest that the warning merits serious attention.

An obvious part of this warning is a straightforward point: no one's life is entirely traditional, and no one's life is entirely modern. Traditional versus modern is better thought of as opposite ends of a scale rather than as a clean sorting. Each community fits somewhere along the scale, in some combination of modern and traditional. Along this scale, many people who are members of more traditional communities are relatively poor, but many poor people live in the modern world. Traditional knowledge is only a part of poor people's knowledge—one should not slip into thinking that developing countries' commercial interests lie only in collecting on traditional knowledge.

Respecting Collective and Individual Ownership

Respecting the collective ownership that some indigenous communities value is a complicated matter. The problem is not, however, that modern conceptions of IP cannot handle collective ownership. Any collectivity that law recognizes as a legal entity can own IP: a corporation, a nonprofit organization, and so forth. Coenraad Visser's study reviewed here evaluates suggestions for novel forms.

Nelly Arvelo-Jimenez (summarized above) points out however that it is difficult to create such organizations in a way that blends with a traditional community's sense of organization and leadership. The indigenous political systems of the Yekuana are decentralized and resistant to the surrender of diffused authority to a central agency. Furthermore, leadership is often based on seniority and has more the spirit of continuing customary modes of life than adapting to new ones. The TBGRI in India did establish a trust fund for the Kani people to administer royalties from patents taken on their ethnobotanical knowledge, but Wüger points out that there were significant differences among the Kani as to the wisdom of the venture.

Recognition of collective ownership raises questions about where to draw the line between the traditional knowledge that belongs to everyone and the innovations produced by individual members of the community. Moving the line too far toward protecting traditional knowledge can have negative consequences for the culture or art of poor people as well as for the earnings they enjoy from its commercial use.

To illustrate the point, we compare the development of country music as a major source of income for what was once an impoverished part of the United States with two of the cases in developing countries.

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[3]Wüger and Visser provide more technical explanations of the requirements for a patent, a copyright, and other legal instruments.

In the United States, the country music business developed in the first half of the 20th century from a rich tradition of indigenous music in the southeastern states.[4] The story of this development is warmly told in a book by Mark Zwonitzer with Charles Hirshberg (2002) that relates the experiences of the Carter family of western Virginia.[5] From the beginning, the entrepreneurs who sought out Appalachian artists looked for music in the Appalachian tradition that was sufficiently novel to copyright. Ralph Peer was one of the early entrepreneurs in country music. From time to time he would set up a temporary recording studio in Bristol, on the Virginia-Tennessee border, and word would circulate that he was in town paying for music.

> Most of the acts racing toward Bristol would go back home to obscurity, with nothing. Many of the mountain acts Peer saw repeated the same songs: hymns, centuries-old ballads, or popular standards that had been recorded already. Peer needed material he could copyright and cash in on, so he needed musicians who could write their own songs, or at least restitch the traditional songs enough that he could 'put them over as new.' (Zwonitzer with Hirshberg, pp. 94–95)

Within a static conception of knowledge/culture, this might sound like parsing out the common domain—all traditional music would pass into private ownership and the community tradition of music would disappear.

In fact, the opposite happened. Many commercially successful artists now enjoy playing and recording more traditional forms, and with the income they earn from their more commercial products they can afford to do more traditional things simply for the pleasure of it. Furthermore, commercially successful music tends to liven the cultural tradition rather than stifle it. Baaba Maal and other successful Senegalese artists' music is now part of the Senegalese musical tradition. Carter family music has become part of the Appalachian tradition. It is celebrated at festivals from Australia to the upper reaches of Canada, in Europe and in Asia, and from Newport, Rhode Island, to Alaska. Moreover, as music evolves away from its roots there are commercial opportunities to turn back. Baaba Maal's 2002 album is traditional music performed on African acoustic instruments. In U.S. country music, Willie Nelson and the "outlaws" who split away from the Nashville version are another example of going back to the roots without sacrificing commercial potential.

Arrangements more focused on protection of folklore sometimes backfire. Rather than collecting rents *for* a traditional community, an organization with authority over the community's musical or artistic tradition may find an incentive to collect rents *from* the community.

Daniel Wüger (summarized above) explains that the government of Ethiopia authorized the Ethiopian Musicians' Association as the agent to license the use of folkloric music. The association interpreted its authority as extending into popular music that had roots in folkloric music. In doing so the association was able to claim royalties for itself that would otherwise have gone to individual composers. Wüger warns that if artists are not able to claim ownership of their works they will not be able to make a living from their profession—and there will be no music in Ethiopia.

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[4] This music had evolved in significant part from the music that the people who settled in Appalachia brought with them from Scotland and England.

[5] The authors are cultural historians, not economists.

John Collins (2000), professor of musicology at the University of Ghana and a leading figure in the music business there, has provided a more detailed description of a similar experience in Ghana.

Musicians in Ghana created the first distinct form of acculturated African popular music—the brass-band Adaha variety of highlife—in the 1880s. When Ghana became independent in 1957, its leader, Kwame Nkrumah, endorsed highlife and encouraged local popular entertainment. By the mid-1970s Ghana was perhaps the liveliest center in Africa for popular music: recording studios, record pressing plants, scores of nightclubs, 20 top highlife dance bands, dozens of Afro-rock fusion bands, 70 or so highlife guitar bands, and "concert parties," which are a local form of comic highlife opera.

In 1991 the government created the National Folklore Board of Trustees, ostensibly to make a register of Ghanaian folklore and to monitor its use outside the Third World. The Folklore Board interpreted its charter to give it the authority to regulate commercial use by Ghanaians as well, and it interpreted "folklore" to include the entirety of Ghanaian popular music. The board imposed a special tax and licensing arrangement on the use of folklore; the tax and arrangement in fact was applied to all commercial popular music.[6]

Today there is no popular music business in Ghana except for techno-pop. Techno-pop is computer-generated music that uses no musicians or musical instruments. According to Professor Collins, the folkloric tax and regulation by the Folkloric Board were a major cause of the disappearance of the music business—and popular culture—in Ghana.

Liebl and Roy (summarized above) report a similar concern about Indian crafts. Dr. Jyotindra Jain, dean of the Faculty of Arts and Aesthetics at Jawaharlal Nehru University, initially supported creation of a regulatory agency. From his experience with it, he has since concluded that any regulatory machinery imposed on the crafts community will ultimately end up hurting, rather than helping, those who need protection most.

The lesson here is that maintaining the liveliness of the culture as well as taking advantage of economic opportunity lies in expanding the dynamics of poor people's knowledge much more than in defending a static stock of knowledge from outside exploitation. Culture in a bottle soon becomes an empty bottle.

The Development Dimension

Justification for protecting traditional knowledge can be found in noneconomic motives. There is sometimes value in preserving a culture, a way of life, from disappearing. Nelly Arvelo-Jimenez makes the case for the Yekuana in Venezuela. In another example, in some poor communities, craft sales by women have provided them cash income. This income elevates them toward equality in their situation vis-à-vis men in the family and community.[7]

[6] The Folklore Board and folkloric tax originated from a recommendation of the WIPO, although the WIPO recommendation was to apply the tax only to use of Third-World traditional knowledge outside of the Third World.

[7] In this instance we suggest that an element of a traditional way of life be changed. We refrain from adding that improved status for women often has a positive economic development impact. The point stands on its noneconomic value.

There is no need, however, to choose between cultural and commercial objectives for or uses of poor people's knowledge. On the whole, economic and noneconomic uses are complements, not substitutes. The positive side of this point, as Liebl and Roy point out, is that the culture they want to preserve evolved because it had economic support. The negative side, as Wüger's, Liebl and Roy's, and John Collins' findings caution, is that regulation that attempts to limit commercial use can end up destroying rather than supporting culture.

Perhaps the key point here is that novelty is not foreign to poor people's knowledge. In many cases poor people's knowledge meets the standard of novelty that modern IP law demands. Recall the cases that involve paintings and designs from Australian aboriginal artists in the studies by Fowler and by Wüger. The art satisfied legal standards for novelty. The complex dimensions of the cases related to the interplay of individual ownership on which Australian law is based and the aboriginal community's traditional law concept of collective ownership. Meanwhile, for the Congolese model of the VW Beetle, and the songs of the Senegalese composers and performers, the commercial problem was not that they lacked novelty, the commercial problem was the capacity to use the commercial tools of knowledge or "content" management. In Senegal there was also the ineffectiveness of the local enforcement mechanism. Indeed, in few of the cases taken up in this review is lack of novelty the characteristic that reduces earnings.[8]

The development dimension lies in helping poor people to master the commercial/legal tools needed to collect the value of their novelty. This is about entrepreneurship, about finding clever ways to repackage traditional knowledge into products useful for consumers in mass markets, and about developing the capacity to produce and deliver these products in sufficient quantity and quality as to satisfy such markets. It is also about building local business infrastructures, overcoming corruption, and overcoming disproportionate tax burdens.

The legal strategy should follow from the commercial strategies of local business, not the other way around. B. Zorina Khan (2002), in her examination of IP in the development of the U.S. and European economies, points out that the level and form of IP protection provided was what, at the time, best supported their own knowledge-based industries. People who figured out how to make some money out of new ideas then lobbied for new laws that solidified their property rights in the face of competition from imitators. Birds build birds' nests, not the other way around. Or perhaps the lesson is more existential: birds' nests are something birds build as they carry on what birds do.

[8] A secondary point, the commercial value of the *stock* of traditional knowledge is perhaps less than proponents of defending it might hope. Ten Kate and Laird report a good faith effort by the scientific and business communities to ensure that local people got a share of the revenues based on the genetic materials from their homelands. Over 10 years the program has generated no patent royalties. The local people have, however, received scientific training and have earned from employment in discovery programs. (Perhaps everything of value was stolen in the past, but shaming the thieves into making retribution is not likely a reliable basis for funding economic development.) From Philip Schuler (2004) we learn that the patented version of a pesticide made from neem seeds has a storage life of two years, while the traditional version biodegrades in a few days. One is a viable commercial product; the other is not. Development is about acquiring the capacity to come up with a commercially viable product. That is certainly not out of the reach of poor countries. The neem pesticide patent is registered in the United States to Indian owners, and its value has been captured by Indian companies that have set up affiliates in the United States.

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