



Collision Course: IP Rights and Traditional Knowledge

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Traditional Knowledge

- Local, unique to a given culture or society
- Contrasts with the international knowledge system generated by universities, research institutions and private firms
- Basis for local-level decision making in agriculture, health care, food preparation, education, natural-resource management, and a host of other activities in rural communities

TK Characteristics

- Local
- Tacit
- Transmitted orally
- Experiential rather than theoretical
- Learned through repetition
- Constantly changing

TK-Sharing to the Developing World

- **treatment of cattle ticks by the Fulani using Tephrosia plants**
- **soil and land classifications in Nigeria**
- **water catching stone bunds in Burkina Faso**
- **construction of buildings with natural “air conditioning” in the Sudan.**
- **Kpelle artisans' steel making technology in Liberia**
- **Agroforestry systems emulating the natural climax vegetation on the Kilimanjaro**
- **settlement for land disputes between farmers and nomads in Togo**
- **communal use and individual allocation of land by the Washambaa in Tanzania**
- **local healers' role in post-conflict resolution in Mozambique**

TK-Sharing to the Developed World

- Acupuncture
- Herbal remedies
- Rehydration salts
- Aspirin
- Neem oil
- Bio-prospecting (Taxol, vinblastine)
- Hoodia
- Etc.

Why Protect Traditional Knowledge?

- Equity
- Conservation of diversity
- Preservation of traditional practices
- Promotion of use
- Prevention of misappropriation
- Preservation of ‘moral rights’

Protections Under Existing IP Law

- Patent
- Copyright
- Trademark
- Trade secret
- Plant Breeders Rights
- Industrial Design Rights
- Moral Rights

Do Intellectual Property Rights Help or Harm Developing Countries?

- **Helps**
 - **Encourages domestic industry**
 - **Boosts foreign investment**
 - **Improves access to new technologies**
- **Harms**
 - **Allows multinationals to establish monopolies**
 - **Drives out local competition**
 - **Forces up prices of seeds, software, drugs, etc.**
 - **Interferes with local practices**

The Fable of the Shaman



Questions

- Do the visitors' activities violate the shaman's rights?
- Does the shaman have an interest in the other activities?

Obstacles to Claiming Protection under Existing Law?

TRIPS vs CBD

- **Convention on Biological Diversity (1992)**
 - Biological resources belong to the sovereign states, not humanity as a whole
 - Requires members states to respect, preserve, and maintain knowledge, innovations and practices of indigenous and local communities
- **Trade Related Aspects of Intellectual Property (1994)**
 - Requires member states to grant patent protection to genetic resources and plants, and in general to promote a ‘US-style’ of IP standards
 - Alternatively, to protect under *sui generis* scheme, for example precluding patenting of TK in their country

The Problems of *Sui Generis* Systems

- Definition of the subject matter of protection
- Variety of the subject matter
- Extent of rights conferred
- Identifying title holders
- Techniques of registration
- Duration
- Enforcement

The Challenge

- **Patents on biological material prevent the free exchange of traditional knowledge and products derived from that knowledge – fundamental to TK systems and economies**
- **Many *sui generis* systems recognize oral tradition or traditional uses as prior art to preclude patent**
- **The US doesn't recognize any non-tangible prior art**
- **Under the Patent Cooperation Treaty, one patent application can result in protection in over 100 countries**
 - **Patent examiners don't have access to local knowledge**
 - **Somebody may patent a product derived from local knowledge that has been in your country for years (or centuries).**

Position of the Developing World

- **TRIPS provides for appropriation of genetic resources by private parties that is inconsistent with the sovereign rights of countries over their resources granted by the CBD**
 - **By requiring patents on plants and genetic resources**
- **TRIPS obligation to provide patent protection for micro-organisms could result in patenting of genetic materials in their natural state:**
 - **Criteria for patentability: novelty, inventive step (non-obvious), industrial applicability (usefulness)**
 - **Human intervention required for genetic resources – but is isolation and purification non-obvious?**
- **Therefore, TRIPS should be amended to preclude patents on life-forms and parts**

The Argument Evolves: ‘Country of Origin’ and ‘Informed Consent’

- **Examining patents for violations of inventive steps and *sui generis* protection is a burden and expensive**
- **Proposal: Amend TRIPS to require patent applicants to disclose**
 - **Origin of genetic resources used in the invention**
 - **Related traditional knowledge**
 - **Evidence of informed consent of the owner of the resource**
 - **Evidence of fair and equitable benefit sharing**
- **Counterproposal: *Sui generis* schemes can include requirement for contracts granting access to genetic resources**
 - **Terms and condition for access**
 - **Joint R&D and technology transfer**
 - **Criminal and civil remedies**

The Developed Nations Dig In...

- **Disclosure requirement not consistent with the TRIPS Agreement:**
 - Existing **disclosure rules** are directly related to determining **whether an invention meets the standards of patentability**
 - **contrary to Article 62.1 of the Agreement which only provides for "reasonable procedures and formalities"**
 - **might also conflict with Article 27.1 which provides for non-discrimination in patent availability between fields of technology.**
 - **would modify the balance of rights and obligations found in the TRIPS Agreement**

Requirement goes beyond the CBD itself, in that the CBD leaves it to each country to establish its own system for controlling access to genetic resources and benefit sharing

Traditional Knowledge Databases

- **Examples:**
 - http://www.wipo.int/eng/meetings/2002/igc/pdf/grtkfic3_6a.pdf
- **Controversies**
 - Access only to patent examiners?
 - Informed consent of the donors
 - TK is irrelevant or harmful outside of founding community, culture, or context
 - Attempts to document, record and transfer TK will disempower indigenous populations
 - Enables biopiracy
- **Technological Challenges**

Resources and References

- **World Bank Development Gateway on Indigenous Knowledge**
 - <http://www.developmentgateway.org/node/130646/>
- **SciDev.net Intellectual Property Dossier (Nature and Science mags)**
 - <http://www.scidev.net/dossiers/dossier.asp?xc=A005>
- **World Intellectual Property Organization**
 - http://www.wipo.org/about-ip/en/index.html?wipo_content_frame=/about-ip/en/studies/index.html
- **Convention on Biological Diversity**
 - <http://www.biodiv.org/>
- **WIPO Index of Online Traditional Knowledge Databases**
 - http://www.wipo.int/eng/meetings/2002/igc/pdf/grtkfic3_6a.pdf



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