



## Environment

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### Water & Environmental Sanitation Community



### Food and Nutrition Security Community



## Water & Environmental Sanitation Community and Food & Nutrition Security Community Consolidated Reply

### *Query: Mechanisms for Protection of Local Community's Intellectual Property Rights - Experiences*

Compiled by Pankaj Kumar S. and Gopi Ghosh, Resource Persons; Ramya Gopalan,  
Research Associate and Bidisha Pillai, Senior Research Associate  
12 January 2007

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**From Ruchi Pant, UNDP, New Delhi**  
**Posted 20 December 2006**

Dear Members,

As part of my earlier work in North East India, I found that although indigenous communities in biodiversity rich areas are amongst the poorest in the world, they have a wealth of traditional knowledge relevant to current food, agriculture and health needs of the world. However, these communities are facing increasing alienation and bio-piracy of their traditional knowledge and bio-genetic resources by researchers and companies which commercialise and patent their resources without their consent or benefit-sharing. Such patents can also threaten community livelihoods by granting exclusive rights to others and restricting community access.

At the same time, globalization and other pressures are steadily eroding the systems that support health and food security of local communities, and there is very little support for ensuring continuation of their knowledge systems. Moreover, in spite of attempts by agencies such as Convention on Biological Diversity and the TRIPS Council, modern society has still not been able to design effective access and benefit-sharing mechanisms for protecting rights of indigenous communities over their traditional knowledge.

In this backdrop, where protection regimes are yet to be in place and where traditional knowledge is fast disappearing, I request members to share information on the following:

- Experiences of community based organizations (CBOs) or civil society groups in setting up alternative models of Intellectual Property Rights for protection of communities' rights over their knowledge and bio-genetic resources. Examples

where the livelihood needs and value systems of indigenous communities have also been addressed are most welcome.

- Experiences of using Peoples' Biodiversity Registers or other documentation models and whether these have helped communities in India and elsewhere to add value to their knowledge and to leverage livelihood prospects
- Examples of successful access and benefit-sharing arrangements in India or other countries. What is the nature of benefits accruing to the community and how are the benefits shared among scattered communities sharing the same knowledge and bio-resources?

The discussion will provide many groups guidance and information about designing and implementing effective methods for protecting traditional community knowledge.

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### Responses were received with thanks from:

1. [Sujit Choudhury](#), PAN Network, Kolkata
2. K V Peter, Kerala Agricultural University, Thrissur ([Response 1](#); [Response 2](#))
3. Gaurang Mishra, Directorate of Economics & Statistics, Port Blair ([Response 1](#); [Response 2](#))
4. [Lucy Maarse](#), South Asia Pro Poor Livestock Policy Programme, New Delhi
5. [Ramesh V Bhat](#), Centre for Science, Society and Culture, Hyderabad
6. [Rahul Banerjee](#), Khedut Mazdoor Chetana Sangath, Indore
7. [Ashok Ghosh](#), A.N.College, Patna
8. [Jyotsna Bapat](#), Independent Consultant, New Delhi
9. [Debasish De](#), Delhi Minorities Commission, Govt. of NCT Delhi, New Delhi
10. [K. S. Murali](#), UNDP, New Delhi
11. [Ramit Basu](#), UNDP, New Delhi
12. [Alpana Mukherjee](#), ADOPT, New Delhi
13. [Rishu Garg](#), ARAVALI, Jaipur
14. [Rakesh Bhardwaj](#), Central Agricultural University, Arunanchal Pradesh
15. [Eric Lemetais](#), Consultants, Le Havre, France
16. [Kewal K. Likhyan](#), IP2REVENUES, Hockessin, USA

*Further contributions are welcome!*

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### Summary of Responses

The query sought members' experiences in setting up models to protect the Intellectual Property Rights (IPR) of communities over their traditional knowledge and in the process, addressing livelihood issues. It also requested information on successful experiences in documenting and benefit-sharing arrangements on traditional knowledge.

Respondents gave several examples of the rich repository of traditional knowledge existing among communities about their immediate natural resources, such as use of medicinal plants among tribals. However, they emphasised that such conservation needs to be seen from the **perspective of livelihoods**. Using various illustrations, members showed that livelihoods were changing rapidly in response to external economic forces. Such transformations diminish the attachment of communities to traditional ways of living, and erode traditional knowledge and

resources. Discussants felt that communities under pressure to earn their livelihoods cannot be expected to conserve traditional knowledge in the absence of any alternatives and recognition. However, they cautioned that since traditional knowledge was context and habitat specific, its conservation should not deprive tribals and other communities from benefiting from modern science and medicine.

Respondents analysed the **impact of modern development interventions** in destruction of biodiversity and loss of traditional knowledge. They pointed out that excessive mineral and resource extraction in biodiversity-rich belts (e.g. Jharkhand, Chhatisgarh, Tripura and West Bengal) is triggering a loss of knowledge as well as resource base. Another threat to traditional knowledge members mentioned was genetic contamination of indigenous germplasm through the breeding of new plant varieties by external agencies. In this context, they cited how the germplasm of Mattu Gulla, a local brinjal variety in **Karnataka** is in the danger of contamination.

Among **good examples** of conservation of the community's traditional knowledge, members mentioned National Innovation Foundation's ([NIF](#)) efforts at recording and validating indigenous knowledge and explained the methodology followed to carry out such documentation. The Tropical Botanical Gardens Research Institute, **Kerala** acknowledged and organized financial compensation to the [Kani](#) tribals for their knowledge of a plant that could be used to produce an anti-fatigue drug. Members also shared an experience from **West Bengal**, where a community was motivated to regenerate a plantation and set up a sustainable [Tasar](#) silk enterprise. [Gene Campaign](#) used seed banks and herbal gardens to conserve germplasm of indigenous vegetable, grain and medicinal plant varieties in multiple states, while in **Uttaranchal**, farmers formed a network for conservation of agricultural seeds, reported respondents. They also mentioned that the M S Swaminathan Research Foundation ([MSSRF](#)) has motivated local communities in **Tamil Nadu** and **Karnataka** to conserve, characterise and sustainably manage indigenous seed varieties. Similarly, the Foundation for Revitalising Local Health Traditions ([FRLHT](#)) documents, certifies and tests raw drugs, while the Green Foundation ([GF](#)) encourages individuals and communities to make seed banks of local crop varieties.

Participants mentioned several **international cases** where local community IPRs were acknowledged. Thus, in [southern Africa](#), local communities were given royalty for developing an appetite suppressant. In [Australia](#), a partnership between a pharmaceutical company and indigenous communities was forged to compensate the latter for use of their knowledge by the former. Similarly, the Biodiversity Law of [Costa Rica](#) attempts to protect IPR of indigenous communities. Likewise, the [United States](#) is collaborating with a university from **Brazil** for screening plants for potential anti-cancer drugs based on Native American indigenous knowledge and for compensating them for the same. In [Cambodia](#), joint mapping and documentation of traditional knowledge by researchers and the community enabled lobbying the Government to endorse the community forestry project. Participants also stressed that existing international laws provided adequate scope for ensuring protection of IPR rights of local communities. National agencies working on indigenous IPR could tie up with international agencies implementing these laws, they suggested.

The group also gave several **suggestions** for protecting and compensating the IPRs of local communities when their knowledge is used for modern purposes. They advised launching an ongoing programme to protect the intrinsic value of biodiversity in crucial zones and detailed scientific mapping of traditional knowledge. Respondents felt that experiments with biodiversity registers and biodiversity boards across the country have made some progress in trying to document traditional knowledge. One option for improving such documentation was that of databases linked to the internet, with specific aspects protected at the discretion of biodiversity boards. Members also shared that region specific products could be patented under the system of "geographical indicators". Additionally, participants suggested that government programmes

such as the National Rural Employment Guarantee Act were an excellent opportunity to provide employment and resources for taking up conservation and plantation for reviving lost or endangered biodiversity. They stressed that conservation would happen only if it is linked to economic benefits and targeted both at local and external markets. Respondents added that existing experiments and mechanisms that have successfully protected IPRs of local communities need to be scaled up nationally.

In addition, members listed a number of **challenges** to protecting IPRs of local communities. Patenting systems, even if in place, would be difficult for tribals to understand and their inclusion could be a major challenge in ensuring transparency. Indigenous knowledge often needs rigorous scientific tests for validation, organising which may be problematic for local people. Additionally, current patent laws do not prevent parties from modifying local knowledge in minor ways and patenting the derivative in their name, discussants cautioned.

Protecting IPR of local communities in the face of bio-piracy is still in an early stage in India and the mechanisms and legal frameworks for documenting traditional knowledge are yet to be crystallised. However, the discussion did underline the urgent need to learn from and scale up the few successful experiments that exist today. This would bring us closer to make IPR related compensation for indigenous knowledge a reality, argued members.

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## Comparative Experiences

### National

#### Kerala

**Protecting Traditional Knowledge on Medicinal Herbs** (from [Gaurang Mishra](#), Directorate of Economics & Statistics, Port Blair)

The Kani tribe of Kerala preserved 'arogyapacha', a rare herb with extraordinary medicinal properties and the traditional knowledge about its use. TBGRI scientists developed a traditional drug formula containing 15 per cent arogyapacha. After scientific testing they sold the formula to Arya Vaidya Pharmacy (AVP) of Coimbatore for a licence fee of Rs 10 lakh which was to be shared equally by TBGRI and the Kani tribe. [Read More](#).

#### West Bengal

**Promoting Traditional Tasar Silk Cultivation** (from [Debasish De](#), Delhi Minorities Commission, Govt. of NCT Delhi, New Delhi)

A group of tribal women Self Help Group consisting of seven members trained in Tasar silk cultivation. While this was traditionally cultivated, they did not have modern technological know-how to promote their efforts well. They obtained permission from the Forest Department to cultivate silk in a plantation. In four months, they reaped a moderate crop and an income of Rs 35,000. This is a successful example of benefit sharing using regenerated natural resources.

#### Madhya Pradesh

**Protecting Traditional Knowledge of Forest Communities** (from [Rishu Garg](#), ARAVALI, Jaipur)

An NGO and the forest department took the initiative to educate a local forest community on the need to preserve their traditional knowledge on herbs and plants, wildlife conservation and protecting their art and cultural heritage. The introduction of bio diversity registers and ties with

the corporate sector to develop and market herbal products, have helped the community to become aware of their precious resources and initiate sustainable livelihood activities.

### **Tamil Nadu, Kerala and Orissa**

#### **Community Based Agrobiodiversity Conservation and Management** (from [Lucy Maarse](#), *South Asia Pro Poor Livestock Policy Programme, New Delhi*)

MSSRF follows strategies of conservation, revitalization, and sustainable use of bio-resources, community empowerment and benefit sharing. Documentation of traditional knowledge is also a part of the programme. About 103 local medicinal plants and their uses have been documented, as well as traditional recipes of 110 preparations, published as resource material in English and Tamil. [Read More](#).

### **Jharkhand, Madhya Pradesh and Uttaranchal**

#### **Documenting Indigenous Tribal Knowledge** (from [Ramit Basu](#), UNDP, New Delhi)

Gene Campaign documented biodiversity and associated indigenous knowledge used by the local community for various purposes amongst three tribal populations. Bioresources being used in human, veterinary and crop health care were documented. The documentation was deposited with Ministry of Science & Technology Government of India and will not be published until there is a legal regime established that would grant ownership of IK to the communities. [Read More](#).

### **Tamil Nadu and Karnataka**

#### **Seed Banks to Revive Traditional Crop Varieties** (from [Bidisha Pillai](#), Senior Research Associate)

GF intervened to revive cultivation of local varieties in the farming practices of several communities in South India. A series of programmes were initiated to explain the values of local varieties, land races and the shortcomings of hybrid varieties through formation of community seed banks involving women. This resulted in improved, pesticide free farming practices, reduced dependency on external markets for seeds and better returns for the farmers. [Read More](#).

### **All India**

From [K V Peter](#), Kerala Agricultural University, Thrissur

#### **Supporting Grassroots Innovations**

The IP section of NIF scouts for and analyzes grassroots innovations to assess their viability for getting patents and other means of intellectual property protection. They draft the patent specifications and other related legal documents and are supported by some premier Intellectual Property firms and IP institutions. NIF as well as its associates GIANS, have already filed 96 patent applications, two design and two trademark applications in India and USA. [Read More](#).

#### **Seeking, Protecting and Sharing Traditional Knowledge**

SRISTI aims at proactively unearthing traditional knowledge and grassroots innovations. The organisation supports the validation and value addition of these traditional knowledge and practices pertaining to bio-diversity, plant and animal health, and have developed several herbal formulations from them. They are in the process of commercializing the technologies developed, while giving due credit to the original source of the knowledge. [Read More](#).

#### **Protecting Traditional Health Knowledge** (from [Lucy Maarse](#), *South Asia Pro Poor Livestock Policy Programme, New Delhi*)

The laboratory at FRLHT undertakes Quality testing & Certification of raw drugs and finished products at a competitive fee. This is primarily for small-scale units manufacturing traditional medicines who don't have the facility of their own. The Research wing focuses to develop quality standards for Traditional Medicines that are based on traditional knowledge that exists in Traditional Medical Systems such as the Ayurveda, Siddha, Unani and folk tradition. [Read More](#).

## **International**

### **Southern Africa**

**Use of Traditional Knowledge to Develop an Appetite Suppressant** (from [K. S. Murali](#), UNDP, New Delhi)

One of the first agreements to give holders of traditional knowledge a share of royalties from drug and product sales, concerns the development of an appetite suppressant derived from species a plant indigenous to southern Africa and long used by indigenous peoples of the region. Use of active constituents of the plant responsible for suppressing appetite was patented and commercialised into a food supplement/ prescription medicine. [Read More](#).

### **Costa Rica**

**Policy Making to Protect Community IPR** (from [Pankaj Kumar S.](#), Resource Person)

Costa Rica's Biodiversity Law of 1998 includes provisions to better protect the intellectual property rights of rural communities regarding uses they have developed for natural resources and plants and animals they have bred. Data collected on the formulation of the Law showed that fortuitous political conditions, or political opportunity structures, were crucial to the success of organizations representing rural communities. [Read More](#).

From [Bidisha Pillai](#), Senior Research Associate

### **Australia**

**Protecting Community Knowledge and National Interest**

Australia's indigenous people possess a rich traditional medicinal and agricultural knowledge. The Merck-INBio Agreement in Australia presents an important case, examining the relationship between intellectual property regimes for the protection of community and traditional knowledge, and national interests. Merck received traditional medicinal samples and information in return for \$1.35 million and an agreed royalty of between 2 and 3% of the drug value. [Read More](#).

### **United States of America and Brazil**

**Protecting Genetic Resources, Traditional Knowledge, and Folklore**

The U.S. government proactively prevents misappropriation of traditional knowledge and facilitates equitable benefit sharing of traditional knowledge. Among others, they have entered a collaborative agreement with a university research organization in Brazil to study plants as potential sources of drugs to fight cancer and helped members of a Native-American tribe create a digital database to record their cultural knowledge, history and practices. [Read More](#).

### **Cambodia**

**Community Forestry Project, Ratanakiri Province** (from [Ramya Gopalan](#), Research Associate)

The project supported indigenous people living in jungles to help them earn a sustainable livelihood. In 1990, the rebels gave up arms and began logging in the community's area which

created problems for the indigenous people. Researchers worked with the community, training them to map and document local resources/knowledge- used to lobby the government on land use permits/laws. In 2000, the Governor endorsed the project as a model to replicate. [Read more](#)

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## Related Resources

### *Recommended Organizations*

#### **National Biodiversity Authority of India, Chennai** (from [K. S. Murali](#), UNDP, New Delhi)

# 475,9th South Cross Street, Kapaleeswar Nagar, Neelankarai, Chennai 600041; Tel./Fax: 91-44-24491390; [nba\\_india@vsnl.net](mailto:nba_india@vsnl.net); <http://www.nbaindia.org/introduction.htm>

*Aims to regulate access to biological resources of the country, securing equitable share in benefits and protect knowledge of local communities, among others.*

From [K V Peter](#), Kerala Agricultural University, Thrissur

#### **National Innovation Foundation, Ahmedabad**

B4, Ravi Niketan, PO Box 15051, Nehru Park, Vastrapur, Ahmedabad 380015; Tel.: 91-79-2673 2456/2095; Toll Free: 1800 233 5555; Fax: 91-79-2673 1903; [info@nifindia.org](mailto:info@nifindia.org)  
[http://www.nif.org.in/scout\\_doc](http://www.nif.org.in/scout_doc)

*Provides institutional support in scouting, spawning, sustaining and scaling up grassroots innovations including intellectual property rights management.*

#### **SRISTI, Ahmedabad**

B/h Pharmacy College Mess, Boys Hostel Campus, Nr. Vijay Char Rasta, Navrangapura Ahmedabad 380009; Tel.: 91-79-27912792; Fax: 91-79-27913293; [info@sristi.org](mailto:info@sristi.org)  
<http://www.sristi.org/cms/activities>

*Works to strengthen the creativity of grassroots inventors, innovators and eco-preneurs by providing intellectual property rights protection and venture support to them.*

From [Lucy Maarse](#), South Asia Pro Poor Livestock Policy Programme, New Delhi

#### **M S Swaminathan Research Foundation, Chennai**

3<sup>rd</sup> Cross Street, Institutional Area, Taramani, Chennai 600113; Tel.: 91-44-22542698/1229 Fax: 91-44-22541319; [web@mssrf.res.in](mailto:web@mssrf.res.in); [chairman@mssrf.res.in](mailto:chairman@mssrf.res.in); [executivedirector@mssrf.res.in](mailto:executivedirector@mssrf.res.in)  
<http://www.mssrf.org/bd/index.htm>

*Works in the area of community based agro-biodiversity conservation and management, bridging the gap between institutional and community systems.*

#### **Foundation for Revitalisation of Local Health Traditions, Bangalore**

74/2, Jarakbande Kaval, Post: Attur, Via Yelahanka, Bangalore 560064; Tel.: 91-80-28568000/8001/8002/7926; Fax: 91-80-28567926; [info@frlht.org.in](mailto:info@frlht.org.in)  
<http://www.frlht.org.in/agenda.htm>

*Promotes transmission of traditional knowledge of health care for its wider use and application in Indian Systems of Medicine, including saving threatened medicinal species*

#### **Gene Campaign, New Delhi** (from [Ramit Basu](#), UNDP, New Delhi)

J-235/A, Sainik Farms, New Delhi 110062; Tel.: 91-11-29556248; Fax: 91-11-29555961; [genecamp@vsnl.com](mailto:genecamp@vsnl.com)  
<http://www.genecampaign.org/We%20stand%20for/Indigenous%20Knowledge.htm>

*Engages in research and advocacy in the field of bioresources, farmers' and community rights, intellectual property rights and indigenous knowledge, biopiracy etc*

From [Kewal K. Likhyanj](#), IP2REVENUES, Hockessin, USA

**World Intellectual Property Organization (WIPO), Geneva**

34, chemin des Colombettes, PO Box 18, CH-1211, Geneva 20, Switzerland; Tel.: 41-22 338 9111; Fax: 41-22 733 54 28; Telex: 412912 ompi ch

<http://www.wipo.int/portal/index.html.en>

*Promotes development and harmonization of IP legislation, standards and procedures, including in the areas of traditional knowledge and genetic resources.*

**Secretariat of the Convention on Biological Diversity (SCBD)**

Tel.: +1 514 288 2220; [secretariat@biodiv.org](mailto:secretariat@biodiv.org)

<http://www.biodiv.org/default.shtml>

*CBD promotes sustainable development focusing on the conservation of biological diversity and fair and equitable sharing of the benefits from the use of genetic resources.*

**Grassroots Innovations Augmentation Networks (GIANs), All India** (from [Pankaj Kumar S.](#), Resource Person)

Chief Innovation Manager, Science Park, Shastri Nagar, Vigyan Udyan Marg, Jaipur 302016; Tel.: 0141-2304161; [gian\\_n@gian.org](mailto:gian_n@gian.org); [http://north.gian.org/about\\_us](http://north.gian.org/about_us)

*GIANs support rural innovators, linking them to the formal systems of patenting and marketing services, to develop a viable business model from rural innovation.*

**National Intellectual Property Organisation, New Delhi** (from [Gopi Ghosh](#), Resource Person)

No.1 Punchkuian Road, New Delhi 110 055; Tel.: 91-9810054571; Fax: 91-11-23611906;

[nipo@nipoonline.org](mailto:nipo@nipoonline.org); <http://www.nipoonline.org/>

*The umbrella organisation for Intellectual Property (IP) laws and related matters in India in order to promote and develop IP and to interact with other organisations in this field*

**GREEN Foundation, Bangalore** (from [Bidisha Pillai](#), Senior Research Associate)

P.O.Box No. 7651, No. 570/1, 'Padmashri Nilaya', 3rd Main, 4th Cross, N. S. Palya, BTM II Stage, Bangalore 560 076; Tel : 080 – 26784509; Fax : 080 – 41200435; [greenfound@vsnl.net/van@vsnl.com](mailto:greenfound@vsnl.net/van@vsnl.com); <http://www.greenconserve.com/Case%20Studies.htm>

*Works with disadvantaged groups of small and marginal farmers, especially women, towards the conservation of agro biodiversity and reviving traditional crop varieties*

**Recommended Portals and Information Bases**

**Geographical Indications of Goods (Registration & Protection) Act, 1999** (from [Ramesh V Bhat](#), Centre for Science, Society and Culture, Hyderabad)

[http://www.patentoffice.nic.in/ipr/gi/geo\\_ind.htm](http://www.patentoffice.nic.in/ipr/gi/geo_ind.htm)

*Provides details of the Act and the rules established in 2002 for better protection of the country or place of origin of products, thus enabling recognition of traditional knowledge*

**Trade-Related Aspects of Intellectual Property Rights (TRIPS)** (from [Kewal K. Likhyanj](#), IP2REVENUES, Hockessin, USA)

[http://www.wto.org/english/tratop\\_e/trips\\_e/trips\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/trips_e.htm)

*The WTO's Agreement on TRIPS, introduced intellectual property rules into the multilateral trading system and shows how to provide protection to IPR.*

**SCBD Information Centre** (from [Bidisha Pillai](#), Senior Research Associate)

<http://www.biodiv.org/doc/info-centre.shtml>

*Collects materials on biodiversity and biosafety published by the Secretariat, international organizations, initiatives, universities, NGOs and major publishers.*

### **Recommended Documentation**

#### **How to Sell a Wonder Herb** (From [Gaurang Mishra](#), Directorate of Economics & Statistics, Port Blair)

By Max Martin; originally published in Down to Earth, Vol 7; Reproduced on BIO-IPR Docserver; November 1998

<http://www.grain.org/bio-ipr/?id=123>

*The article tells the story of the Kani tribe and how their traditional knowledge about a medicinal herb was protected and patented in a partnership with a research institute.*

From [K. S. Murali](#), UNDP, New Delhi

#### **Rhetoric, Realism and Benefit Sharing: Use of Traditional Knowledge of Hoodia Species in the Development of an Appetite Suppressant**

By Rachel Wynberg; The Journal of World Intellectual Property; November 2004

<http://www.biowatch.org.za/pubs/wjip.html>

*The article gives details of one of the first agreements ever, to give holders of traditional knowledge a share of royalties from drug and product sales.*

#### **Mysore Silks to Protect its IPR; Seeks Geographical Indication**

The Hindu Business Line, August 2004

<http://www.thehindubusinessline.com/2004/08/18/stories/2004081801951900.htm>

*The article gives an insight into how the Karnataka State Government is seeking to protect a traditional form of silk weave by branding it as a geographical indication (GI).*

From [Pankaj Kumar S.](#), Resource Person

#### **Digital Library to Protect Indigenous Knowledge**

By T. V. Padma; SciDev.Net; January 2005

<http://www.scidev.net/News/index.cfm?fuseaction=readNews&itemid=1840&language=1>

*Article explores the plan to create a digital library of South Asia's traditional knowledge and develop laws to prevent its misappropriation through commercial patents.*

#### **Biodiversity Policy Making in Costa Rica**

By Michael J. Miller; The Journal of Environment Development; 2006

Click on the link to read the abstract <http://jed.sagepub.com/cgi/content/abstract/15/4/359>

*Shows how groups representing indigenous peoples obtained favourable policy provisions to protect the intellectual property rights of rural communities in the face of opposition.*

From [Ruchi Pant](#), UNDP, New Delhi\*

#### **Traditional Knowledge Protection and Recognition of Customary Law: Policy Issues and Challenges**

By Krystyna Swiderska; Planning Workshop on 'Protecting community rights over traditional knowledge: Implications of customary laws and practices'; London; May 2004

<http://www.solutionexchange-un.net.in/environment/cr/res02010701.doc> (Size: 174 KB)

*Explores the policy issues and challenges surrounding the protection of traditional knowledge (TK) relating to bio resources and the recognition of customary law systems*

## **Globalisation and Intellectual Property Legislation in India: Protection of TK and Plant Variety Protection**

By Ruchi Pant; Paper presented at the XV Congress of the Commission on Folk Law and Legal Pluralism; Indonesia; 28 June – 2 July 2006

<http://www.solutionexchange-un.net.in/environment/cr/res02010702.doc> (Size: 103 KB)

*Highlights the importance of TK related to plant varieties and the need for its protection, exploring the suitability of IP legislation in this respect and suggesting the way forward.*

## **General Information Relating to Sui Generis System from an Eastern Himalaya Case Study**

By Ruchi Pant; 30th September 2005

<http://www.solutionexchange-un.net.in/environment/cr/res02010703.doc> (Size: 56 KB)

*Explores the need for holistic sui generis systems to protect TK in accordance with local laws and practices in the context of existing indigenous, local, national and regional laws.*

## **Draft Provisions on Traditional Cultural Expressions/Folklore and Traditional Knowledge**

Intergovernmental Committee (IGC), WIPO

Traditional Cultural Expressions: View [PDF](#) (Size: 4.81 MB)

Traditional Knowledge: View [PDF](#) (Size: 4.16 MB)

*The above two drafts aim at the protection of traditional cultural expressions/folklore (TCEs) and traditional knowledge (TK) against misappropriation and misuse*

## **Protecting Community Rights over Traditional Knowledge: Implications of Customary Laws and Practices** (from Deeksha Sharma, WHO, New Delhi) \*

By Krystyna Swiderska *et al.*; Interim Report (2005-2006) IIED; November 2006

Click [here](#) to view PDF (Size: 128 KB)

*Report of the research project that undertook a number of case studies, aiming to assist indigenous and local communities to protect their rights over traditional knowledge*

\*Offline Contributions

From [Bidisha Pillai](#), Senior Research Associate

## **Traditional Knowledge and the International Context for Protection**

By Johanna Gibson; SCRIPT-ed 58; 2004

<http://www.law.ed.ac.uk/ahrb/script-ed/docs/TK.asp>

*Deals with protection of traditional biological resources as issues of property, cultural integrity and obligations to international cultural diversity, citing the Australian example.*

## **The U.S. Approach: Genetic Resources, Traditional Knowledge, and Folklore**

By Jeanne Holden; International Information Programs, U.S. Department of State; January 2006

<http://usinfo.state.gov/products/pubs/intelprp/approach.htm>

*Explores the US government's position on mechanisms aimed at protecting the value of genetic resources, traditional knowledge, and folklore specific to indigenous communities*

## **Community Intellectual Rights Act USA**

International Environmental Law Projects; Lewis & Clark College 2005

<http://www.lclark.edu/org/ielp/nijar2.html>

*Provides details of the Act, which seeks to establish a sui generis system for the protection of the innovations and the intellectual knowledge of local communities*

## **Traditional Knowledge and Intellectual Property**

By Stephen A. Hansen and Justin W. VanFleet, AAAS Science and Human Rights Program; July 2003

<http://shr.aaas.org/tek/handbook/handbook.pdf> (Size 2.35 MB)

*Cites case studies to suggest possible intellectual property protection options for traditional knowledge holders and ways to implement an intellectual property strategy*

### **Challenges in the Traditional Knowledge-IPR Debate**

By Peggy Fairbairn-Dunlop; Paper for Meeting on Utilizing Science and Technology for Women's Economic Empowerment: Progress and New Challenges, Seoul; November 2000

[http://www.unesco.org/id/APGEST/events/chennai\\_meeting/traditional-knowledge.pdf](http://www.unesco.org/id/APGEST/events/chennai_meeting/traditional-knowledge.pdf) (Size 40KB)

*The paper presents an understanding of the influence of IPRs on traditional knowledge systems in the Pacific region, with emphasis on the role of women in this context.*

### **A Simple Guide to Intellectual Property Rights, Biodiversity and Traditional Knowledge**

By Tejaswini Apte; Kalpavriksh; Price Rs 150.00

Order a copy at <http://www.kalpavriksh.org/f5/f5.1/pub06bdta>

*Introduces the world of IPRs, biodiversity and biodiversity-related traditional knowledge making it easily accessible to laypersons and individuals already familiar with the subject*

### **The Role of Registers & Databases in the Protection of Traditional Knowledge: A Comparative Analysis**

By Merle Alexander *et.al.*; UNU; January 2004

[http://www.ias.unu.edu/binaries/UNUIAS\\_TKRegistersReport.pdf](http://www.ias.unu.edu/binaries/UNUIAS_TKRegistersReport.pdf) (Size 923 KB)

*This work uses case studies and comparative analyses to assess the role of databases in protecting traditional knowledge, highlighting them as one mechanism in TK governance.*

From [Ramya Gopalan](#), Research Associate

### **Community Resources: Intellectual Property, International Trade and Protection of Traditional Knowledge**

Johanna Gibson and Burlington, VT, Vol. 16 No.5, May 2006

Review available at: <http://www.bsos.umd.edu/gvpt/lpbr/subpages/reviews/gibson0506.htm>

*Develops a proposal for a global convention to protect traditional communities from exploitation, permitting them to manage their intellectual, social, and physical resources*

### **Protection of Indigenous Knowledge and Possible Methods of Sharing Benefits with Local Communities**

Dr. Suman Sahai, BRAC Centre for Development Management, Bangladesh, 19 – 21 April 2002

<http://www.dgroups.org/groups/OKN/docs/Indigenous%20Knowledge.pdf> (Size: 145 KB)

*Provides details and problems of existing IPR on Indigenous knowledge, and the potential value and commercial prospects of IK based products incl. benefit sharing*

### **A Community Guide to Protecting Indigenous Knowledge**

Simon Brascoupé and Howard Mann, Department of Indian Affairs and Northern Development, June 2001

[http://www.ainc-inac.gc.ca/pr/ra/ind/gui\\_e.pdf](http://www.ainc-inac.gc.ca/pr/ra/ind/gui_e.pdf) (Size: 355.16 KB)

*This guide outlines key issues and practical steps that can be taken, using a community development model, for the process of preserving and protecting Indigenous Knowledge*

### **Journal of Intellectual Property Rights**

Volume 8, Number 5, September 2003

Click [here](#) to view link

*Provides a list of related articles and their abstracts, concerning issues of IPR and resources of developing countries*

### **The Protection of Medicinal Plants in India**

Sangeeta Udgaonkar, Environmental Information Systems

<http://envis.frlht.org.in/sangeeta.htm>

*Discusses the rich knowledge base of countries like India in medicinal plants and health care, the lack of IP Laws and the resulting surge in "bio-piracy"*

### **Communication and Natural Resource Management**

The Communication Initiative, FAO Rome 2003

Click [here](#) to view PDF (Size: 370 KB)

*A tool for people involved in communication and natural resource management to better understand how various theories and strategic change principles relate to actual practise.*

### **Intellectual Property Rights in African Agriculture: Implications for Small Farmers**

Devlin Kuyek, Grain, August 2002

<http://www.grain.org/briefings/?id=3#3> (Size: 677.56 KB)

*Brief aims to provide rural community workers, small farmers and policy makers in Africa with information for understanding the implications of IPRs on plant genetic resources*

### ***Recommended Contacts and Experts***

From [Lucy Maarse](#), South Asia Pro Poor Livestock Policy Programme, New Delhi

#### **Dr. Kornel Das and Dr. S. Arunachalam**

M S Swaminathan Research Foundation; 3rd Cross Street, Institutional Area, Taramani Chennai - 600113; Ph: +91-44-22542698, 22541229 Fax: +91-44-22541319

*They have worked with communities on agrobiodiversity and associated components like medicinal plants, and documentation of traditional knowledge of tribal communities.*

#### **Anthra and Dr. Balakrishnan M. N. Nair**

Foundation for Revitalisation of Local Health Traditions; No.74/2, Jarakbande Kaval, Post : Attur, Via Yelahanka, Bangalore - 560 064; Tel. : +91 80 2856 8000/8001/8002/7926; Fax : +91 80 2856 7926; E-Mail: [info@frlht.org.in](mailto:info@frlht.org.in)

*Have worked on revitalisation of social processes (institutional, oral and commercial) for transmission of traditional knowledge of health care for its wider use and application*

#### **Vandana Shiva (from [Gaurang Mishra](#), Directorate of Economics & Statistics, Port Blair)**

Navdanya - A-60, Hauz Khas, New Delhi-110016; Tel.: 91-11-26535422, 26968077; Fax: 91-11-26856795, 26562093

*Founder of Navdanya, a national movement to protect the diversity and integrity of living resources, especially native seeds*

### ***Related Past Consolidated Reply***

**[Seed Varieties and Farmer's Right](#), from Vanaja Ramprasad, Green Foundation, Bangalore (Advice).** Issued on 24 October 2006

*Explores issues of protecting farmers' rights to produce and exchange their own seeds versus procuring seeds from commercial companies, in the context of the Seed Bill.*

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## Responses in Full

### [Sujit Choudhury](#), PAN Network, Kolkata

The issue raised by Ms Ruchi Pant related to intellectual property rights on traditional knowledge needs to be seen from the perspective of livelihood practices. It is true that in biodiversity rich areas, the poorest people are living. But can we say that since these people are poor (in the connotation of the modern societies), they have developed the knowledge of harnessing their sustenance from their surroundings and thereby made these areas biodiversity rich? The so called modern civilization is continuously trying to change nature and is in turn destroying the biodiversity (including agricultural biodiversity) for a so called globalized modern living. Now in India most of these biodiversity rich areas are exploited by modern man for other resources like minerals in Central India and timber in North East.

From our experience with tribal communities in Jharkhand, West Bengal and Tripura, we found that many villages are changing their livelihoods at a fast rate to catch up with the rest of modern India and in the process are forgetting their traditional knowledge of sustainable use of natural resources. The best example of this is that the social life of the tribal residing near mining areas is now entirely different from that of their relatives residing in the forest areas in far away places. Now within the tribal society, they think that persons working as a labourer for all 365 days is better off since he has more money than a person with food security (of a different kind in a biodiversity rich zone). Slowly these changes are percolating and people are forgetting their traditional knowledge with the advent of more and more infrastructure, mining and other projects.

On the other hand, in the mining areas of Birbhum, West Bengal, we found (ironically) that now after 30 years of the start of mining, they are regretting having adopted and accepted changes which made them dependent on the whims of mine owners. Most of these mines are illegal and these tribals are still poverty stricken and are also having diseases. But the damage has already been done.

I feel that without addressing livelihood issues, it is a difficult proposition to expect the community to protect traditional knowledge, as other external economic forces are forcing them to do otherwise. The best way now is for modern societies to act, as Ms Pant says, in a concerted way to protect the remaining biodiversity rich pockets. For this, traditional knowledge will be extremely useful. A continuous campaign is required to propagate the intrinsic value of these biodiversity rich areas and addressing their needs through a consultative mechanism. Detailed scientific mapping of traditional knowledge is necessary to protect biodiversity in areas where such distortions are taking place.

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### [K V Peter](#), Kerala Agricultural University, Thrissur (*response 1*)

Yours is a good initiative. The National Innovation Foundation based at IIM Ahmedabad has an ambitious programme to document, validate and, if needed, refine indigenous knowledge. Tribal communities are rich in knowledge of herbs, medicinal plants and food crops. Indigenous healers use the inherited knowledge over time and space to bring health to people and their dependant animals. The present knowledge based society has a lot to learn from local and traditional wisdom, where it is wiser to be disease free rather than being healthy by medication. In traditional healing, mind is given the first priority, then the body. Let the present initiative throw open newer information.

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**[Gaurang Mishra](#), Directorate of Economics & Statistics, Port Blair (response 1)**

One example of Dr Puspangadam is with us. In Kerala, he and his team in Tropical Botanical Gardens & Research Institute (TBGRI) has worked for the rights in favour of the tribals of the Kerala. Sanjeevani is the name of the medicine I think they developed and the sale proceeds go towards the tribal community. We need to appreciate such efforts.

Ruchi started with the North East. In my opinion, this part has some inherent problems and the masses are not thinking in politically correct terms. One wonders what the state governments, chosen by people themselves, have been doing.

When I visited these areas I found that the area is rich in natural resources. However, the rich cultural heritage is being influenced by the forces of modernity resulting in a loss of their traditional crafts, rituals, music & arts. Youth there sing only pop songs, and the dress pattern has changed. I feel very bad about it. These things may look alienated from your topic but all of these are very important aspects as they directly or indirectly affect our traditional knowledge and its value system.

I feel that even in other parts of the country such as U.P., Bihar, Jharkhand, Maharastra, Himachal, the tribal and traditional knowledge systems are vanishing at a fast pace. And you will also agree that all these areas are rich in resources but also home to poverty (not only the North East). In all these areas, further decentralization of power is required and funds have to be utilized for the upliftment of people. The matriarchal systems prevalent in Meghalaya and Manipur have kept the social fabric. The State governments must do some thing to save the traditional knowledge and incorporate this into the State Plans.

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**[Lucy Maarse](#), South Asia Pro Poor Livestock Policy Programme, New Delhi**

Fortunately, there are also good examples of protecting and acknowledging the traditional knowledge developed and maintained by communities. In order to ensure first hand information, I have requested Dr. Kornel Das and Dr. V. Arunachalam of MSSRF to share their experiences and insight with you.

Others whom you could approach are Anthra and Dr. Balakrishnan M. N. Nair of Foundation for Revitalisation of Local Health Traditions.

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**[Ramesh V Bhat](#), Centre for Science, Society and Culture, Hyderabad**

The mechanism to protect and acknowledge community's traditional knowledge is by registering the product under Geographical Indications of Goods (Registration and Protection) Act 1999.

I wish to share my experience with "Mattu Gulla" a variety of brinjal exclusive to Mattu and surrounding villages in Udupi district of Karnataka. Recorded evidences show that it has been cultivated in this area since 15th century. However, now the produce is under threat as a result of a USAID funded joint project between the Agricultural Biotechnology Support programme II at Cornell University of USA and the University of Agricultural Sciences (UAS), Dharwad. The UAS has given the seeds of "Udupi Gulla" to a local company, who backcrossed them into a transgenic product and sent back the backcrossed seeds to UAS, Dharwad. If these varieties are grown in the Mattu region, there is every danger of the indigenous variety getting contaminated and the purity of Mattu gulla, guarded by indigenous farming community since the time of the great

reformer Saint Sri Vadiraja in the 15th century, would be polluted and this valuable heritage of mankind would be lost for ever.

The farming community of the region is now aware of the threat and efforts are currently under way to register the Mattu gulla under the Geographical Indication registry at Chennai as has been done for other agricultural produce of Karnataka like Nanjanagudu Plantain, Mysore Beetle leaves and Coorg Orange.

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**[Rahul Banerjee](#), Khedut Mazdoor Chetana Sangath, Indore**

I would like to second Sujit's statement that without viable schemes for ensuring a sustainable traditional resource based livelihood for indigenous and tribal communities, it will be extremely difficult to preserve their traditional knowledge in the face of the increasingly widespread market economy. Even if patenting systems are put in place, tribals will be incapable of understanding and operating them because such systems are extremely complicated and understood only by specialists.

For instance, in Madhya Pradesh a government department has been set up to promote the commercialisation of herbs and through this benefit the tribals. However, so far only a few units have been set up, which source their raw materials from the market through traders - who in turn buy them from tribals at a pittance. One way to get out of the low investment trap that besets the herbal cultivation, collection and trade cycle at the village level is to work out some labour intensive scheme, which could be included under the parameters of NREGA. The massive funding available under the NREGA could then be channelised into conservation, development and marketing of traditional knowledge.

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**[Ashok Ghosh](#), A.N.College, Patna**

I was born in Santhal Parganas, predominantly a tribal belt, and now a part of Jharkhand. During my stay in the villages, I have seen the depth of the knowledge of tribals about local medicinal plants and their remedial values. However, with rapid urbanisation and use of modern medicine, this knowledge is disappearing slowly. It will be a great work if some organisation starts working in this area and catalogues the plants of medicinal value and their uses. I will be happy to provide logistic support in any such work.

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**[K V Peter](#), Kerala Agriculture University, Thrissur (response 2)**

Agriculture is 10,000 years old in India and is a marriage between plants and the environment. Our great-great-great grand parents innovated practices and methods to identify plants for human/animal sustenance. Innovations in agriculture are in large numbers and most uses were found through experimentation and trial and error. Input efficiency has been experimented through actual practice, in which observation was the key to each and every field trial and the refined technologies were put to use. It is a laudable idea that these age-old innovations are documented. This does not mean that we are backtracking from any movement forward. It only means that age old wisdom is used to compliment science and practice of today.

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**[Jyotsna Bapat](#), Independent Consultant, New Delhi**

Congratulations to Ruchi for initiating discussions on this topic.

I would like to point out that local indigenous knowledge of herbs and medicinal plants is very context specific and may at times have limited application for specific diseases and illnesses. The knowledge about a herb or a plant is generally protected as traditional knowledge and passed on by word of mouth from one generation to another. Also the diagnostic methods used in traditional medicine are no substitute for the modern approach to medicine. Therefore indigenous knowledge is generally rooted in a nostalgic 'royal savage' concept. Thus tribals should not be denied access to modern medicine on this ground.

Additionally, the context of the treatment and the plant used is interlinked. Also, the method of extraction and application makes a difference. Given all this, it is unclear whether the IPR is for the plant or herb or for the method of application and extraction. This needs to be debated, after which one can talk of IPR of community, which is an even more complex matter to resolve.

So, rhetoric apart, the issue of benefit sharing from a region by an outsider is important because there is a lot of money involved. However, this issue is not resolved very easily, as it is quite complex.

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**[Debasish De](#), Delhi Minorities Commission, Govt. of NCT Delhi, New Delhi**

While working with Ramakrishna Mission Lokasiksha Parishad, West Bengal in Joint Forest Management, I worked with forest fringe dwellers, mainly tribal people. I will mention here one case where community's traditional knowledge was upgraded to bring benefits to the community.

In a small roadside village Niljora in Raipur block of Bankura district, West Bengal, a group of tribal women formed a Self Help Group with initially 7 members. This group was then trained in Tasar silk cultivation. They had already been cultivating it in the forests nearby, but did not have modern technological know-how to promote their efforts well.

I approached the DFO of South Bankura Division and got permission to culture tasar silk in a plantation of Arjun (*Terminalia arjuna*) raised by the Forest Department at the outskirts of the village. The seed for tasar silk was supplied by Patelnagar Silk Research Institute. The group contributed 25% of the total cost of pruning the plantation, seed, transport and themselves managed for vigil of the plantation. After four months, they reaped a moderate crop resulting in an income of Rs 35,000. After sharing Rs 7,000 for the community development fund and the seed bank fund, they received Rs 5000 per member. Today, this group is inspiring other communities by sharing their experiences with others.

The funds the group contributed has led to the village having its own resources - a water-lifting pump for minor irrigation in vegetable gardens and plantations; they also grow a nursery and sell seedlings to the forest department. The village has a non-formal school cum creche. Now there are three self help groups, of which two groups consist of female members and one of male members. The annual contribution towards the community fund now is as much as Rs 30,000. The villagers maintain their village approach road, tubewells, and primary school - resources made by the government earlier.

This is a successful example of benefit sharing and empowerment at the grassroots level using regenerated natural resources. We have managed to replicate this experience in the forested areas of Puruliya, West Midnapore and South 24 Parganas. We have also given training to Rava community of Jalpaiguri and adjacent Coochbihar of West Bengal with the help of Forest division.

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**K. S. Murali, UNDP, New Delhi**

Thanks to Ruchi for raising this issue of biodiversity, traditional knowledge and benefit sharing from its commercial utilization. There are varied approaches already being implemented in the country to address these issues, though one needs to assess their efficacy and the intricacies of the issues.

In my opinion, firstly there should be good documentation of traditional knowledge and the way in which its commercial or local use can be administered. Although ethno-botanical studies do exist as isolated efforts, they need to be consolidated product wise and region wise. However, this is quite a tough task, as information is not readily available and most of it is not in a published form, but is in the form of reports, students' thesis, etc.

Biodiversity registers started a few years ago were an attempt to undertake such documentation. There is also currently an attempt to link various traditional knowledge data to the internet in such a way that information on marketable items is kept undisclosed and can be accessed only with the permission of respective biodiversity boards or concerned communities where the product is found. A detailed programme on this is being discussed and formalized with National Innovation Foundation at Ahmedabad and the National Biodiversity Board, Chennai.

Biodiversity boards across the country must take the initiative in collating the information already available and trace violation in cases where local knowledge is used without attribution. In Karnataka, an effort to document such knowledge at district level is being mooted and data from coastal districts in Karnataka is already being collected.

There are several examples of such benefit sharing using traditional knowledge system. One such can be found in the following URL <http://www.biowatch.org.za/pubs/wjip.html>

Furthermore, I wish to inform members that there is a system of patenting for products that are region specific called "Geographical Indicators" which needs to be applied to specific products grown or cultivated in specific regions of the country. You are well aware of the Basmati rice and its geographical affinity. Similarly oranges are being patented on local specific taste and advantages. Sarees such as Pochampalli and Mysore Silk are being patented. The benefits accrued will be distributed to those farmers or members specific to the region mentioned in the patent.

One of the major problems associated with traditional knowledge is its proper documentation and necessary scientific proof that needs to be produced in case of disputes. Although there may be proven records of people using these product, say as medicine, they need to pass the test of strength of scientific rigorous tests that may or may not be available. We must also know that if a company extracts something from traditionally used medicine and modifies the product after extraction, local people cannot make claim on those products.

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**Ramit Basu, UNDP, New Delhi**

Thanks for raising this issue at a time of transition in India, when we truly need to emphasise the importance of conservation and protection of community's indigenous knowledge to ensure a buffer against unplanned and purely commercial globalization.

I would like to quote the example of the Seed Bank concept in Jharkhand as part of the Food and Livelihood Security project of Gene Bank, of which I was a part. The project attempted to help enable local adivasis conserve diminishing traditional seeds and germplasm knowledge to provide them a cushion against the ill-effects of modern high yielding varieties, such as additional inputs and high costs, which many a times cannot be afforded by the local villagers.

Under the project, efforts have been made to collect, characterise and conserve seeds of traditional rice, cucurbitaceous crops and millets in farmer managed seed/ grain banks. These seeds are reproduced and multiplied to cater to food security. The endeavour is not restricted to food crops but also attempts conservation of such species of local flora whose medicinal value has been identified. Such plants are propagated in herbal gardens under supervision of local villagers. This has helped conserve and pass on traditional knowledge to younger generations, which knowledge would otherwise have been buried with ageing 'ayurvedacharyas' in the region.

I also strongly believe that mere gospels of conservation would not help improve the situation. The community needs to be connected to local markets so that they see an element of 'economics' in the entire exercise and a potential of financially benefiting from conservation efforts. This would create an interest in conservation, even if it is with a commercial tint.

Another area where the immense wealth of traditional knowledge relevant to current food, agriculture and health needs of the society can be conserved and used effectively is through NREGA. The Act holds immense potential of reviving lost biodiversity apart from ensuring livelihoods provided an interrelationship between the two can be established. Special eco-groups can be set up in the villages to provide substantial inputs to gram sabha meetings where the selection of work to be taken up under NREGA is finalised. Bio-resources hold an immense potential of catering to local needs and their value addition could also help them get a market. Therefore such efforts should be taken as a priority - for example through afforestation and plantation - under NREGA. Similarly, every effort should be made to restore agriculture through NREGA, which would not only be a means of livelihood but also cater largely to local food and nutrition security.

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**[Gaurang Misra](#), Directorate of Economics & Statistics, Port Blair (response 2)**

This query has vast scope. Vandana Shiva has been doing considerable work in making a genetic bank of grains and thereby conserve indigenous breeds in the hills of Uttarakhand. She had also opposed genetically modified food in India. Recently we also heard that many patents had been filed in US on neem and turmeric.

There is an urgent need for the Government to save, study, research, analyze, and propagate traditional medicinal system of India. In a few publications of GOI, Charaka Samhita and works of Sushruta are praised as the rich heritage of India. However, on the other hand there is a lack of work on safeguarding the concepts if the traditional medicine systems are. Thus the National Innovation Foundation, MSSRF or such other bodies should document such traditional knowledge system of India.

I also remember reading a Down to Earth article about an attempt to patent a tribal herbal remedy for malaria in the Andaman islands without acknowledging and protecting the IPR of the tribal community.

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**[Alpana Mukherjee](#), ADOPT, New Delhi**

Our invaluable resources are getting fast depleted because of rapid deforestation and increasing pressure of population on land on one hand and because of long neglect, scant documentation and improper dissemination of traditional knowledge on the other. An added factor is the competition from aggressively marketed quick-acting allopathic drugs.

However, in recent decades the craze for herbal medicines and cosmetic products has been noticed not only in the developing countries, but also in developed countries of the world, largely because of the strong side effects of allopathic drugs and chemical cosmetic products. It may be mentioned here that unlike allopathic medicines, which are disease specific, traditional herbs not only address a particular ailment but also strengthen all the systems of the body, as there exist several different medicinal elements in each herb.

There is an urgent need for increasing awareness and proper documentation of our herbal resources, particularly in the face of bio-piracy and unjust patent claims by foreign MNCs. For this, it is essential to take up a planned and well thought out documentation and dissemination programme among village people through competent, experienced and down-to-earth resource persons. This also means taking up action on the following simultaneously:

- i. preparing an information bank of known and explored herbal resources of the village
- ii. identifying key socio-economic parameters at the village-level for a base-line survey and
- iii. establishing how identified herbal resources may be utilized by the villagers to help in their socio-economic development.

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**[Rishu Garg](#), ARAVALI, Jaipur**

I think you have taken up the issue of our fast diminishing traditional knowledge on biodiversity very well. I would also like to add knowledge and practices on conservation of water to the issue. As rightly pointed out by you, there has been increasing alienation of communities and bio-piracy of traditional knowledge and bio-genetic resources by researchers and companies. Another core issue is that each year, large amount of funds are spend on research work both by forest department (through research institutions) and through bi-lateral funding and private sources. How is this amount justified with respect to benefits to the communities, who more often than not are represented only on photographs of research work?

I wish to share my understanding on these issues based on my experience of working with forest department in Sehore territorial forest division of Madhya Pradesh. Various initiatives have been taken up by forest department in Madhya Pradesh towards developing models through community based organisations and civil society organisations.

- Territorial forest division of Sehore has worked with Junoon adventure club of Bhopal to ensure livelihood opportunities for local youth of Kathotia Village in the Veerpura range of Sehore forest division. This is a forest village situated in dense forests adjoining Bhopal. The area has ancient caves with innumerable cave paintings. These caves also provide a secure place for wild life and especially bear. Various problems have emerged such as hunting, forest fires and illicit felling largely because of poverty and a lackadaisical approach of both the community and the forest department. However, interventions by Junoon and the active role played by the forest department has helped the community to become aware of their precious resources, initiate sustainable livelihood activities, conserve and protect wild life as well as the ancient heritage of cave paintings. As a result of the above, the need for maintaining traditional knowledge base has become important to the community and to the youth in the village. No amount of research work or bio-diversity registers could have revived

the knowledge and the desire among the youth to protect these resources. For more information on this you may contact Shri C.S. Mann, DFO(T), Sehore, Madhya Pradesh, Phone number -07562-222767.

- Initiatives of bio-diversity registers have been undertaken in Rehti range of Sehore forest division. For more information please contact Shri C.S. Mann or Dr A.K. Bhattachaya, CF (development), Van Bhawan, Satpura, Bhopal.
- An innovative model for benefit sharing has also been developed for ensuring both long and short term returns to community from Aonla [*Emblica Officinalis*] plantation undertaken under National Afforestation Program by Forest Development Agency in Kotiyanala village of Astha forest range of Sehore forest division. The success of Kotiyanala could perhaps be a model for developing benefit sharing mechanisms for joint forest management committees engaged in rehabilitation of degraded forest resources. For more information on please either write to me or to Shri C.S. Mann.
- Another initiative of promoting traditional knowledge on medicinal herbs and ayurvedic products has been taken up in Rehti range. NTFPs are collected by members of JFMC and collected and processed in Ayurvedic centre. Efforts for tying up with Corporates (such as HLL) have been taken up for development and marketing of herbal products. This has ensured sustainable harvest on one hand and assured livelihood to people on the other. For more information on this, please contact Shri C.S.Mann or Tendu Patta Laghu Vanopaj Sangh, Bhopal.

These are some initiatives where with active involvement of forest department, successful initiatives for conservation of natural resources and generation of livelihood issues have revived the community's interest towards their lost treasures. The need of the hour is to scale up such initiatives across the country. I sincerely think that to address issues raised by you, the need is to move beyond the project strategy of doing things and inculcate in implementers and managers the need to address such issues and concerns. Documentation of bio-diversity is done once in a decade in Working Plans, on which huge amount of funds and human resources are spent. But what purpose do these huge documents serve? Does a forest manager know about concerns and issues or critical areas of intervention mentioned in the Working Plan? Or are programs planned accordingly? Or has traditional knowledge been appreciated by local communities through these documents?

In my opinion, there is a need for bio-diversity boards to play a more active role in bringing to public notice the major issues concerning conservation of bio-diversity. A similar role is expected from NGOs (which have extensive work experience on these issues) so that a recognizable third force is there to ensure concerns of community. There is also a need to ensure partnerships (Community-NGO-Public-Private partnerships) on this issue. To ensure interests of conservation and community, forest departments can also play a vital role.

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**[Rakesh Bhardwaj](#), Central Agricultural University, Pasighat Arunachal Pradesh**

I wish to share with members our approach in documenting innovations which I am currently following in Arunachal Pradesh along with my colleague Dr. Ranjay Kumar Singh. We have two sanctioned projects from National Innovation Foundation of India – Ahmedabad under a DST programme. We undertake surveys on innovations in remote locations and enroll resource persons generally (old age persons) in the villages. We tell them that the objective of survey is:

1. Documentation of Traditional knowledge and wisdom to preserve it for future.

2. Making the documented information available to others in an abstract form so that other people know about their knowledge.
3. Protecting local people rights on the information provided by them and checking biopiracy.
4. Development of business plans for compensation in potentially marketable ideas with traditional knowledge holders and working out profit sharing mechanisms.

We also organise recipe contest for women of rural areas, biodiversity contest among school kids, besides a regular survey to document the ITK and create awareness of its importance.

All documented information is submitted to NIF, which takes all the responsibility for its later use, validation, development of business plan and IPR issues.

This year two people from Bomdilla and Dirang (West Kameng dist) have won national awards for their traditional knowledge in conservation of indigenous crop varieties and races.

This is an overview of some of our efforts.

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### **Eric Lemetais, Consultants, Le Havre, France**

As a French person, working also in Africa, I would like to say that Indian communities, organizations, NGOs are the best in the world, and are the most creative about development. For example, at the Development Marketplace competition, the main innovative ideas come from India, and Indian people always win the prize.

Regarding bio agrobiodiversity, I am working on the moringa tree with which many things can be done as this tree offers tremendous opportunities for development of local communities.

We also are working and developing innovative proposals using Solar energy, and, we are open to any new ideas, as we accept to transfer our patent to any local community. With solar energy, we can produce :

- cold and ice for agropastoralism, fisheries, harvests, etc..
- potable water up to 5 cubic meter per day.

This can be developed and implemented in any dry sunny rural area of India.

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### **Kewal K. Likhyan, IP2REVENUES, Hockessin, USA**

Here are my comments:

As you all know, much has been debated on issues arising out of Traditional Knowledge or Biodiversity / Biopiracy. The Convention on Biodiversity, World Intellectual Property Organization, World Trade Organisation (TRIPS) have give some visibility to these issues but nothing concrete has surfaced till date to help local communities protect or benefit from use of their traditional knowledge. What is worse, in many cases, they risk losing the right to free access to traditional products due to new patents based on their traditional knowledge.

Fortunately, international patent laws already exist (e.g. United States Patent and Trademark Office, European Patent Office, Patent Cooperation Treaty) which make any patent invalid if "prior knowledge" existed before date of filing or before the "invention date" claimed by the patent holders or if the "invention" was derived from an existing prior-art. In fact, it is common

practice by attorneys seeking to invalidate a patent to travel to remote places to find some prior-art -even if it is based on UNDOCUMENTED traditional knowledge. For example, you may know that the patent on a libido-enhancing plant extract is expected to be challenged by attorneys who have been hired to defend local community in Peru against biopiracy by a pharmaceutical company which patented and commercialized it.

We also know that India has a rich heritage in medicinal plants and traditional / tribal knowledge. Some statistics claim that almost 60% of all existing drugs have been derived from these medicinal plants and patented, indicating that there is a lot of wealth for India in the traditional knowledge arena but for which we need to take urgent action!

So, I suggest that law-makers in India meet those who negotiate trade agreements with WTO to develop strategies for India to protect her traditional knowledge (based on these international patent laws which already exist. Ways to bring equitable benefits to local communities could also be set up. This may include offering licenses against compensation to pharmaceutical companies who may have derived their drugs from traditional knowledge of local plants in lieu of law suits, or use the license as a negotiating chip to provide affordable medicines which are badly needed in India.

In summary, we can handle the issues even today based on existing laws, in addition to documenting Traditional Knowledge, as Mr. Misra and Mr. Pant have alluded to. We just need to put systems in place to monitor or analyze patent claims which have already been issued. To do this, as I have mentioned above, we should get the appropriate Government agencies to talk to people at WTO, WIPO, etc. or negotiate bilateral agreements and develop workable strategies to start bringing equitable benefits to the local communities---before it's too late!

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### Many thanks to all who contributed to this query!

*If you have further information to share on this topic, please send it to Solution Exchange for WES Community at [se-wes@solutionexchange-un.net.in](mailto:se-wes@solutionexchange-un.net.in) or Food and Nutrition Security Community at [se-food@solutionexchange-un.net.in](mailto:se-food@solutionexchange-un.net.in) with the subject heading "RE: [se-wes][se-food] Query: Mechanisms for Protection of Local Community's Intellectual Property Rights - Experiences. Additional Reply."*

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