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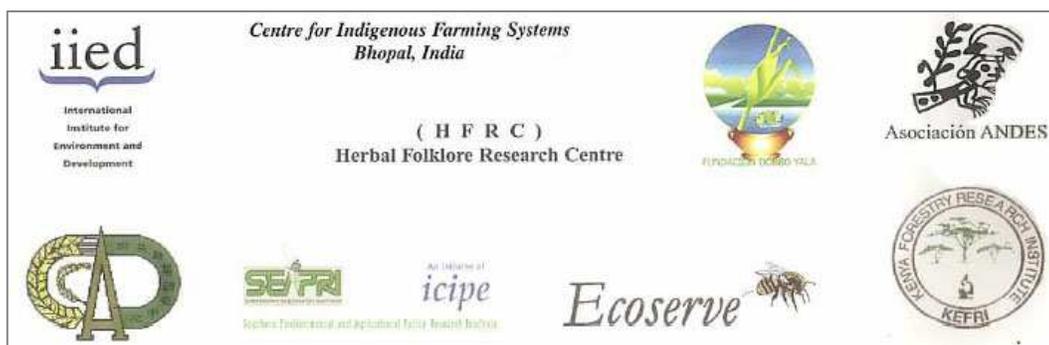
**PROTECTING COMMUNITY RIGHTS OVER TRADITIONAL KNOWLEDGE:
IMPLICATIONS OF CUSTOMARY LAWS AND PRACTICES**

*Report of the Research Partner's Workshop organised by the International Institute for
Environment and Development, 27-30 July 2009*

Note by the Executive Secretary

1. The Executive Secretary is pleased to circulate herewith, for the information of participants in the eighth meeting of the Ad Hoc Open-ended Working Group on Access and Benefit-sharing, the report of the Research Partner's Workshop on Protecting Community Rights over Traditional Knowledge: Implications of the Customary Laws and Practices, held from 27 to 30 July 2009 in Buckinghamshire, United Kingdom, and organized by the International Institute for Environment and Development (IIED).
2. The paper will also be made available to participants in the sixth meeting of the Ad Hoc Working Group on Article 8(j) and Related provisions of the Convention on Biological Diversity, which will be held in Montreal, from 2 to 6 November 2009.
3. The paper is being circulated in the form and language in which it was received by the Secretariat.

* UNEP/CBD/WG-ABS/8/1.



Protecting Community Rights over Traditional Knowledge: Implications of Customary Laws and Practices

RESEARCH PARTNER'S WORKSHOP, 27-30 July 2009

Organised by IIED

Burnham Beeches Hotel, Buckinghamshire, UK

WORKSHOP REPORT

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1. OBJECTIVES

This four day workshop brought together research partners from India, China, Peru and Kenya, along with invited experts (16 participants)¹, in order to:

1. Share the findings of 7 case studies on customary laws and practices for traditional knowledge protection and access and benefit-sharing, conducted with different indigenous communities since 2005 (see Annex 2).
2. Identify common lessons to inform policy and practice - in particular, the development of the CBD's International Regime on ABS (as called for in CBD COP Decision IX/12).
3. Identify key issues for future research.

2. RESEARCH FINDINGS

2.1 Customary laws for TK Protection and ABS

Overview of project findings (Krystyna Swiderska, IIED):

The project has sought to provide an alternative vision for TK protection and ABS based on the customary laws and practices of indigenous and local communities, rather than existing IP models. Customary laws include specific rules, social values or principles, worldviews/beliefs, codes of conduct and established practices. They are enforced by community institutions, derived from NR use/practice, locally recognised, orally held, and dynamic (evolving over time).

While specific customary rules vary, indigenous communities often share common principles that guide all aspects of life, including access to TK and genetic resources:

- Collective custodianship and decision-making;
- Reciprocity: giving back in equal measure (to both humans and nature)
- Open Sharing: in order to receive (especially strong for seeds);
- Duality: everything has a complementary opposite (individual & collective; traditional & western systems)
- Equilibrium: social harmony/equity and respect for nature
- Solidarity or brotherhood: helping the needy (with no obligation to reciprocate)

Indigenous communities also share similar worldviews, characterised by:

- Spiritual beliefs - gods associated with nature must be respected
- Holistic perspective - everything is inter-connected and complex; tangible and intangible resources (eg. genetic and intellectual) cannot be separated; humanity is part of nature. Knowledge is closely interlinked with bio-resources, landscapes, customary laws and cultural and spiritual values - all of which form part of 'Collective Bio-cultural Heritage'.

TK and bio-genetic resources are believed to come from God, so individuals cannot claim rights (even if knowledge is individually held). TK and BRs are openly shared within and between communities - sharing provides access to new knowledge and crop varieties and maintains purity of seed. Land is collectively held, so the natural resources on the land

¹ See participants list in Annex 1. The Panama team were unable to attend.

and related TK are also collectively held too. Many activities are done collectively at village and family level, and decisions are often made collectively.

Transmission and renewal of knowledge depends on: the use of biodiversity, both wild and domesticated; collective activities (eg. in farming, NTFP collection, festivals); communal access to sacred areas in the landscape (eg. forests, mountains); customary laws that promote TK transmission; and cultural and spiritual values. Thus, the research confirmed that TK is closely inter-linked with, and inter-dependent on, all the components of *Collective Bio-cultural Heritage (CBH)*, as perceived in the holistic indigenous worldview. The project defined CBH: "Knowledge, innovations and practices of indigenous and local communities that are collectively held and inextricably linked to traditional resources and territories, local economies, the diversity of genes, species and ecosystems, cultural and spiritual values, and customary laws shapes within the socio-ecological context of communities".

Customary rules for **Access** vary depending on the type of knowledge/resources to which access is sought, and these rules also apply to third parties:

- *Communal Knowledge* (ie. agricultural knowledge, everyday healthcare and seeds) is open access. Open sharing and reciprocal exchange are critical for obtaining the diversity of knowledge/resources needed to survive in often harsh environments. This means that third parties should also maintain open access to TK/bio-resources that originate from communities, and derived products, so that these resources remain part of community commons and collective innovation systems.
- *Specialised Knowledge* (usually medicinal): Restricted to family, clan or kin, and must be used for community healthcare. Third parties should also ensure proper use of this knowledge for community health needs (eg. by developing drugs for communities)
- *Sacred Knowledge* held by healers or elders- must be kept secret and cannot be used by third parties.

As TK is collective heritage and shared between villages, Prior Informed Consent (PIC) and Equitable **Benefit-Sharing** (EBS) should also engage neighbouring villages in order to support TK systems and avoid conflicts. Analysis of practices for distribution of wealth in the Potato Park, Peru, found that benefits are shared with families according to the amount of labour invested in NRM; and to help those in need (eg. widows and orphans). Recipients must respect customary values of equity and conservation.

The customary principle of Reciprocity means that communities expect to gain access to the knowledge and bio-resources of others, in return for access to their TK/resources. This is often more important than monetary benefits. However, while much TK and bio-resources has left communities and are available to others *ex situ*, communities are rarely allowed access to the genetic resources held *ex situ* that were collected from their lands. The current ABS system promotes a one-way flow of genetic resources away from communities.

While customary values are similar in different cultures and ecological contexts, the extent to which customary laws are still recognised varies considerably. In the Quechua and Kuna case study communities, customary laws are still enforced by community institutions; in the three Indian cases, customary authorities have been weakened, but communities have maintained collective decision-making on many NR/agriculture issues, spiritual beliefs and sharing values. The customary authorities and laws of the Mijikenda

in Kenya have been weakened but retain certain functions, especially where the formal system is inadequate (eg. conflict resolution). In the China case, customary laws have been lost but sharing values and cultural preferences still help to maintain traditional varieties. In many cases, customary laws and practices can be revived and strengthened (eg. in the Potato Park), but this is not always possible - eg. some Mijikenda healers are already practicing commercially, hence both individual & collective rights need to be recognised.

The concept of *Collective Biocultural Heritage* provides a useful framework or vision for strengthening and protecting TK systems in diverse contexts, but needs to be adapted to the local situation. For the Yanadi in India, restoring collective rights to sacred forests is the priority; while in China it is strengthening collective NRM and seed sharing. A number of case studies identified the need to enhance economic returns from TK/GRs, while strengthening customary values that sustain TK and biodiversity.

Discussion

Rapid loss of genetic diversity: There has been a major loss of genetic varieties across the Himalayan region, and it is happening very fast. The same is true in many other areas. A recent study in Vietnam and Zambia found that this is not because of prejudice against traditional varieties or because the varieties are less nutritious, but due to other factors, like lack of constant availability in the market, so less is bought and less is grown. The kinds of varieties being lost are those used for special occasions or mixed with herbal medicines as catalysts. The media has a big influence over what people buy and does not promote traditional varieties. Price is also a factor: in India local varieties cost more because the new 'modern' varieties are often subsidised. The E. Himalayan study found that people are not growing new varieties but are using them because they are cheap, so traditional varieties are grown less. Maintenance is to do with usage-traditional varieties are used for weddings, celebrations etc (ie. cultural use) while new varieties are often chosen for everyday use. Diversity is also decreasing in the Philippines cordillera. Farmers don't include the cost of their own labour in the price of traditional varieties. Local varieties/products were never made to be available in large quantities.

Revival of diversity and culture: In the Potato Park, traditional varieties have increased in the last five years because of their cultural significance - they provide a cultural link to ancestors and make the communities feel distinct. So cultural identity is strongly linked to conservation. In the Eastern Himalayas, there has been a move to revive cultural identity amongst the tribals, especially older people, who feel that they are a minority in the region dominated by the Nepalese. They are promoting their own language, education etc. and this could revive customary laws and practices. In China, new rules for community NRM are emerging through local farmers' organisations, which are like customary laws, but not so comprehensive.

Effects of labour migration: In China, the younger generation are moving away from the village which affects the transmission of customary laws and TK. Yanadi youngsters are also moving away from the villages in search of new opportunities, affecting their customary laws and TK transmission. Similarly the Mijikenda youth are moving to towns; while in the Peru case, migration is seasonal. The Mijikenda clan land is inherited by men, so they always go back when retired. This customary decision making system has to be

respected for land to be inherited; but it also works against customary law as people seek to avoid the lengthy clan process.

Impacts of traditional medicine policy: Kenya's national policy on TM emphasised cultural wealth following consultations involving communities. The government was also going to reward the elders of Kaya sacred forests. But now it wants to ensure all traditional medicines are certified to ensure they have no harmful effects, which is too expensive and lengthy for communities. Their medicine has been used for 100s of years so they know it is safe. The Yanadis of Andhra Pradesh face the same problem. Their TK is not recognised by India's systems of alternative medicine because it is oral and not codified, and because they are mainly illiterate and regarded as superstitious.

Trans-boundary and inter-cultural issues: Where varieties are shared across borders, customary laws and practices are also shared, along with culture and politics - hence joint protocols are required. However, neighbouring communities can also have different customary laws and legal systems - so other legal systems need to be recognised. Intercultural links are a very important part of customary laws, as per the principle of Duality (eg. of Andean and Philippine cordillera people). 'Indigenous law' includes elements of statutory law that indigenous people choose to use, as well as customary law.

Peru study findings on Quechua customary laws (Alejandro Argumedo, ANDES Peru)

As Lino Mamani from the Andean Potato Park said: "Sharing potato varieties among us means sharing knowledge about how seed use affects our food systems and culture. Sharing seeds also means making decisions together. Good relationships are built on Ayni (Reciprocity), respect for each other and working together". This quote is useful for summarising our research. Customary laws are about identity and as the Declaration on the Rights of Indigenous People (DRIP) demonstrates, there is a constant struggle to maintain identity and not be absorbed by wider society. Our vitality as people is to do with our ability to continue to shape our rules for our way of life to continue - so there is also a struggle at national level to get recognition of our legal systems.

In the Potato Park, we have about 1300 different native potato varieties - over 800 are local varieties and over 400 are from the International Potato Centre and the rest are from exchange with other communities. Since the CBD, people have looked more at how to adapt Intellectual Property law - we wanted to see what rules are in the community to protect TK. We have a preliminary framework on how to use customary laws to protect IK. We use a transdisciplinary approach, based on the need for complementarity between different systems so that they are holistic (as per the principle of Duality).

The principles of the Quechua legal order are cultural, social and economic institutions that are locally based, which give rise to customary law - it is important to understand that indigenous legal traditions are different to western legal systems. The study used the Quechua word for 'law' to help identify elements of customary law.

Main findings:

- Biocultural heritage or biocultural *systems*? Because the elements of TK are interrelated we are talking about complex systems - holistic agricultural systems. Biocultural Heritage denotes inter-generational transmission and rights; BC systems includes BC heritage. The CBH concept is unchanged, but 'systems' emphasises the

interrelated elements. We need to look at BCH and customary laws as complex systems in order to deal with adaptation to climate change.

- There is a relationship of reciprocity between Indigenous Peoples and what the natural environment produces.
- Indigenous identity and cultural resistance are a very strong element of why we are focusing on customary laws - we need to use CLs as part of the political struggle to get them recognised by law - so that the rules of indigenous people are recognised and not just how the government sees the rules
- Intercultural practice involving respectful exchanges is important - indigenous people don't see the need to dominate others (like colonial powers), but to link with them. Therefore a trans-disciplinary approach and legal pluralism are needed.

The research focused on the Quechua legal order- nature and principles. All customary laws are 'natural laws' as they are derived from the use of NRS, and over time practices become laws - so this is the source of law. Reciprocity (or 'ayni'), Duality, Equilibrium (balance) are the 3 main principles of the Quechua legal order. Customary laws are changing all the time in response to changing political and economic circumstances, internal and external; there have been constant changes since colonial times.

Conflict resolution - they looked at conflicts related to potatoes. Conflict is a normal daily feature of communities. Customary laws have kept conflicts from getting out of hand and destroying the community - statutory laws are not useful for resolving local conflict. Customary laws are also needed for maintaining cultural identity.

Variables affecting customary law and conflict resolution: Political independence of communities is vital for retention of customary law. The more isolated, the stronger their customary law. There is a strong body of norms linked to seeds and seed exchanges. Different authorities deal with different levels of law - eg. family disputes are dealt with locally but if they affect community balance, eg. issues of land and seeds, community elders decide. People prefer to use the Peruvian legal system to avoid conflict in the community if an issue cannot be resolved. The existence of customary law gives some autonomy and independence to allow people to keep managing their resources; but also limits the authority of the state.

We need to use CLs, the Traditional Resource Rights concept and statutory indigenous law to develop policy and legal mechanisms to protect TK. They have done this at local level. How to achieve legal pluralism at national level? Can use the DRIPs as a lever to push for this. In theory Peru recognises legal pluralism, but not in practice. They have used the findings on CL to develop: a proposal for the Protection of Indigenous Names - which is currently with the Cusco Congress (but stalled due to the recent conflicts with I.Ps in Peru); and an Inter-community EBS agreement linked to the Repatriation Agreement with CIP (the International Potato Centre in Lima). They have put the Potato Park collection under the ITPGRFA system, thus the IT now effectively recognises community-managed landscapes as genebanks. They have also developed a Plan de Vida - plan for NRM and for the future; and a Collective Trademark - the rules of who is allowed to use or not use trademarked products are based on the project findings.

We also plan to develop an access protocol for the PP based on the findings, now that the collection is in the FAO IT system. For this we need to be mindful of the different types of conflict that exist. It is also important to see how our research can help

implement the UNDRIPs. They are using the concept of 'buen vivir' of indigenous peoples in Latin America as an alternative to 'Sustainable Development', which is not about linear accumulation of wealth, but emphasises reciprocity with the environment. They also want to use the study results to take Syngenta to court over their terminator potato, by looking into indigenous jurisprudence against the terminator patent.

Discussion - Customary laws, seeds and links with formal law

- Much customary law arises out of conflicts. Part of the conflict is when people no longer do what they are meant to according to CL and practices, eg. because of religion.
- In the Eastern Himalayan study, they didn't find any conflicts or customary laws relating to seeds. Perhaps because communities have meetings before they decide how to plant different varieties. In Quechua communities, certain varieties have to be planted in full moon, and in certain places, eg. as a guardian on the edge of fields, etc.; and are exchanged only amongst women - seed exchange networks emerge around different seeds. There may be duality for some issues, but with respect to seeds (when/where to plant particular varieties), customary laws prevail.
- In the Potato Park, with the return of seeds they have not had for 30 years, culture has returned because the elders realise they can't function without some ceremony etc, so cultural information is embedded in genetic resources; if it is food, it revives the knowledge of how to cook it, eg. with certain herbs, and this links the resource to the landscape.
- The Indian government does not recognise tribals as indigenous people so the DRIPs is not so useful.
- Need to identify derivatives of customary law to include in formal laws to avoid customary law itself being frozen. The relationship between customary and formal law needs to be carefully understood - if customary law is recognised/included in formal law then you give authority to decide to formal institutions. Need to have mutual flow and respect between legal *structures*, not just laws.
- States hate to surrender the power to determine outcomes, as this is their most fundamental power. Yet ceding power to regions can strengthen overall state power.

2.2 Tools for Protecting TK & Bio-cultural Heritage

Summary of tools developed in each study (Krystyna Swiderska, IIED)

While the concept of CBH is useful in diverse contexts, the tools needed to protect and strengthen it are different. Most studies are using a range of tools: legal tools, community resource management and market-oriented approaches:

- Legal tools: Quechua Inter-community agreement for EBS; regional orders banning GMOs and against Biopiracy, Cusco/Peru; proposal to protect indigenous names. Kuna protocol for external access to TK; recognition of Embera-Wounaan collective territory in Panama; and informing national policy on GR & TK in Kenya.
- Non-legal Tools: NRM/CBH/Life plan for Vilcanota Spiritual park, Peru; community CBH registers to record & conserve TK/bio-resources, strengthen rights & identify market products; awareness raising for communities & others on the need to protect TK; establishing local organisations of healers & farmers; value addition and marketing TK-related products; and local seed fairs.

Tools for Protecting TK & CBH - Kenya study (Peter Munyi ICIPE/SEAPRI and Doris Mutta, KEFRI)

The study sought to establish community registers of TK/CBH in Mijikenda coastal

communities; strengthen capacity of traditional medicine practitioners for value addition; and feed community views into the national task force on TK, GR and Folklore.

Findings:

- The previous policy process focussed on traditional medicine but was not really dealing with culture. In the more recent policy on TK, GRs and Folklore/TCE, customary institutions came out more strongly and the healers were happier with it. But the task force has come to an end and it is not clear what will happen to the draft policies. There has been an attempt to make the THC system subservient to the modern healthcare systems- it should be complementary.
- At community level, there is concern about the erosion of TK, and recognition that databases have potential to preserve it. How to maintain incentives for TK? There is a need for economic and non-economic incentives, but without eroding cultural values as these are incentives. The cultural significance of sacred forests is not lost to the communities, contrary to popular political belief.
- The healers appreciated the register process as they were getting recognition that they own these resources and can claim ownership (eg. of music on the radio). But not everything can be recorded, eg. music and rituals in kaya forests; and maintaining documentation is a challenge.
- While strengthening technology and knowledge for value addition, basic social and economic needs (eg. road access) also need to be addressed
- Need legal recognition, institutionalisation (inc. remuneration of traditional authorities), capacity building and empowerment of local communities in management of NRS/Bio-resources, including reconciling different values placed on them by communities and 3rd parties.
- Customary laws should be better integrated into Kenya's legal system, inc. expansion of the scope of application - this is currently limited to personal matters, with very little role in NRM. Systems for defining ownership of biological resources in a culturally sensitive fashion need to be developed in the context of national policy development - applying CL may be useful for this.
- The Environmental Management and Coordination (Conservation of BD and Resources, Access to GRs and BS) Regulations, 2006 need to be specific on how PIC is obtained, including that related to TK. A holistic (ie. coordinated) approach needs to be taken in the development of national policies dealing with TK, genetic resources and folklore - currently there is a disconnect amongst the various policy processes on these issues.
- At the international level, the ongoing negotiations for a legally binding regime on ABS should draw on empirical evidence available on the issues - some parts of it are not evidence based.

Tools for Protecting TK & CBH - Yanadi/India study (Dr. S Vedavathy, HFRC India)

The study sought to enable the Yanadi of Andhra Pradesh to gain recognition of their customary rights over Traditional Health Knowledge; and to safeguard their THK and free access to bioresources needed for its practice. It helped the communities understand the importance of their THK and the need for its protection; develop community biodiversity registers; and form an association of Yanadi healers to assert their rights as health providers and resource protectors. The Yanadi are forest dwellers with extensive and unique healing knowledge. However, the new forest conservation laws (eg. forest reserves) have made them live in isolated colonies away from the forest, and have denied free access to the forest. When thrown out of the forest they lost interest in practicing THK. Their THK and some plants are on the verge of extinction, and their

knowledge is not formally recognised but branded as the superstitious knowledge of illiterates. Only 20% of people use modern medicine, and there are many alternative medicine systems, all originating from the TK and folklore of local people.

The study found that the basis of survival of their THK is in their customs, practices and rights. THK is linked to the availability of bio-resources. Customary practices inc. rituals in sacred forests, wild collection, ceremonial visits to show respect to nature and deceased ancestors, worship of health goddesses and giving reverence to plants, are vital to TK generation and transmission. Loss of potency in cultivated plants is due to reduced alkaloids. Potency increases when all these customary practices are performed. Forest bioresources are considered common property of the community. Sustainable use, with self-imposed limits, and principles of CBH, reciprocity and social harmony are vital to their lifestyle. The Yanadi don't quarrel in the forest, or cut a living plant - many plants and sites are sacred. Primary healthcare is given freely and specialized knowledge is kept secret. Rigorous training from a reputed healer of their clan is needed to become a specialized healer. The Yanadi spend 6 months of the year living in the forest fringes, but here forest bioresources are largely gone as many others are allowed in. They can't access the sacred sites as these are part of the reserve forest.

The Tribal Forest Rights Act is giving land back but only for agriculture. Joint Forest Management is only encouraging monoculture plantations in the buffer zone. The Yanadi have not shown much interest in the community registers and healers' association as they are very poor and have more pressing concerns, and they expected to get a loan after forming the association. Thus currently, marketing and generating revenue may be the only way to revive TK, but for marketing they need a certificate. The Yanadi can't obtain a certificate, so Vedavathy is getting 9 products certified and will give them the certificates if the tribes get an opportunity to manufacture and market them on their own.

Discussion - Tools for TK protection:

- *The need for market-based approaches:* The Mijikenda study also found that protection needs to go hand in hand with capacity building and access to markets so they can see the value of protecting TK. Cultural festivals have helped local communities realise that cultural products add value. They can assist THPs to add value through hygienic processing, providing more information and nice packaging. Others are taking away the market from village herbalists because of better packaging. In the Himalayan case, millets (drought resistant varieties important for adaptation) have become marginalised, but with packaging by women's groups, millets have become very popular. In China, an NGO is working with a local restaurant to revive traditional crops and hens, and that has revived lost cultural practices. The consumers and farmers meet once a month to work together.
- *Prioritising community subsistence:* It was also noted that first the food and nutrition needs of the community should be addressed, before thinking about the market. Often if communities get cash they will buy noodles or rice with little nutritional value (Peru). However, some communities have no land of their own (eg. the Yanadi), and so may have to take a market based approach.
- *The nutritional value of traditional varieties:* We need to explore this and promote it through the media, starting with existing information. ANDES is looking at antioxidants in potatoes. They have teamed up with a biochemistry masters student in a local

university, and are thus promoting awareness of culture/TK amongst scientists, and enabling local communities to participate in research - bridging science and TK.

- *Certification of THPs* also requires scientific analysis. The problem of the Mijikenda is that many herbalists don't have access to labs as they are in Nairobi. The WHO has published 3 detailed monographs of medicinal plants, which could be a useful starting point. MAPA alert has recorded most medicinal plants; a lot of work has been done.

Benefit-sharing with TK-holders. In India, the Forest Department has already collected the local names of many traditional medicines. The national TK Digital Library will give no benefits to the Yanadi because TK is rarely used in the final product. Internationally, there is a very strong tendency to separate GRs and TK - business is constantly insisting on this. The problem is that many people have been displaced from resource access/use and many resources are available *ex situ*. Also, patents are very easily granted, and do not necessarily involve a discovery - applicants don't need to know what their 'innovation' is or how it works. Usual ABS agreements are extractive, but some are not, eg in New Zealand, elders are directing the objectives of the research etc, so there can be a non-extractive relationship, as long as the community is very clear about its objectives. We need to base TK policy on actual practice but there are very few cases of PIC for TK.

How to get CLs recognised outside communities? We need to see the distinction between strengthening local customary law and creating space for recognition, and the formal system recognising and subverting local customary law. The Potato Park agreement with CIP recognised CL outside the community. The biggest challenge was how to translate the spirit or principle of CL since it is oral. The dispute mechanism of the agreement uses conflict resolution of communities based on customary laws. They will soon renegotiate the agreement to further improve the benefits.

Using Databases to protect TK/CBH - Nina Moeller and Martin Pedersen, Lancaster University

They are using free or 'open source' software to develop a register database of potato varieties and biocultural systems for the Potato Park, mainly because it mirrors community values of open access to knowledge. Binary code means source codes of software cannot be revealed - free software ensures the source code remains free to access, use, improve. 'Copyleft' means free access to the information (as opposed to copyright). There are parallels in the struggles of indigenous peoples and hackers against the privatisation of knowledge.

Why document indigenous biocultural heritage?

- Erosion of traditional knowledge, practices and resources calls for documentation
- Misappropriation of traditional knowledge calls for proof of prior art
- To take stock of bio-resources and monitor change

Why digitally? Multimedia represents cultures much more adequately than written words. Participatory possibilities are much higher. Computers allow images and videos to transmit orally held knowledge. But how useful are computerised systems for communities and TK systems? More time at the computer means less time in the field or forest - so it's not useful on its own - TK systems also need to be maintained *in situ*. And it uses energy - since 2007, the IT industry is a greater polluter than the aviation industry. A free software database is not secure and not a guarantee against patents.

But it can be useful for raising awareness of communities, community-building, strengthening computer literacy and strengthening community self-esteem. Ideally it is one tool of a multi-strategy approach. At the moment they are experimenting with the DRUPAL platform to create a database for the potato park, which can serve for: building epistemological bridges; promoting the wider work of the park; development of traditional knowledge "policy"; and inviting reciprocity.

The database is based on the 3 Andean principles - reciprocity, duality and equilibrium. It is a tool for influencing policy because of how the information is organised. Recognition of the Potato Park collection by the FAO Treaty system means that the Treaty recognises the landscape and what is in farmers' fields as a gene bank. Databases also allow scientific information to be stored. They help address local problems that help the local economy, and primarily aim to strengthen rights. They can also be useful for education and awareness raising in less traditional communities. In the Potato Park they needed a databases because they had so much information. Access issues will be determined by customary laws and authorities (not elected authorities). Therefore it is a process of empowerment of traditional authorities.

Discussion

- Access to electricity is an issue for many communities in Africa and India. In Kenya they are trying to set up solar powered computer stations in villages, mainly to distribute official information about agriculture.
- How to include cultural values? Need to go beyond biodiversity/TK registers, but what fields to use?
- Databases can be used for TK protection by incorporating customary law in the development of the software. The Free Software Foundation believe that all information should be freely accessible rather than 'enclosed' by IPRs etc (the Microsoft/capitalist approach). So they are concerned about the indigenous movement wanting to protect their rights over TK. But indigenous people have been marginalised - there is a need to address this imbalance before making all information freely accessible. They want to protect their knowledge from enclosure by the dominant system - so 'protection' means third parties must also share freely, as a condition of access.

The Inter-community Agreement for Equitable Benefit-sharing in the Potato Park, Flavia Noejovich (legal consultant)

Customary rules and practices for benefit sharing identified by communities of the Potato Park in consultations and working groups were used as the basis for drafting a legal agreement on benefit sharing. The overall objective of the agreement is to ensure that the benefits received by the Potato Park are distributed in a fair and equitable manner among the six communities of the Park according to the principles of customary laws and national and international laws regarding the protection of traditional knowledge, access to genetic resources and indigenous rights.

The agreement supports the three Andean principles - reciprocity among community members and with the environment; duality because it is based in both customary and statutory law; and equilibrium that keep the balance among all elements (institutions, people, natural resources, landscape, etc).

An expression of the principle of equilibrium can be seen in the institutional structure for managing and distributing benefits among communities, which combines a set of control and supervision mechanisms in order to ensure that everyone participates and receives benefits. Together equilibrium and reciprocity are the expression of fairness and equity that underlie the different benefit sharing mechanisms; for instance, ensuring that that benefits are distributed not only among those directly involved in the activities of the Park, but to all members of the six communities, based on their situation and needs (e.g. widows, orphans, disabled).

The agreement is the result of a complex consultation and drafting process, as it tries to capture in written language the customary law that inspire specific rules for the distribution of benefits and translate them into different clauses without losing the essence of communities' customary laws and build a coherent and understandable agreement.

The agreement regulates the distribution of: a) the repatriated seeds; b) the monetary and non-monetary benefits derived from the use by third parties of traditional knowledge, seeds and native potatoes repatriated to the Potato Park; and c) the benefits resulting from the use of goods and activities derived from the agreement with the CIP. This agreement also establishes a conflict resolution mechanism and procedures for granting prior informed consent based on customary laws.

Communities agreed to maintain the free flow of resources among them and between their members. They also agreed that the seeds and potatoes repatriated are collective property of the six communities of the Potato Park, irrespective of the community's land in which the seed was reproduced. The use of traditional knowledge and associated genetic and biological resources could only be permitted with the prior informed consent of the six communities of the Potato Park, and the benefits derived from the TK should be distributed on an equal basis among all communities.

The agreement includes provisions for the monetary and non-monetary benefits that shall be distributed in accordance with the three guiding principles of customary laws: reciprocity, equilibrium and duality. These principles provide the basis for several derivatives which are reflected in the different modalities for distribution of benefits. For instance, the amount of seeds to be distributed among the communities should be proportionate to the amount of cultivated land each community has, thus ensuring that each community receives at least one of each repatriated varieties of potato.

For the monetary benefits resulting from the commercialization of native potatoes and seeds, the communities apply the principle of *rakinakuy*, establishing that the distribution should be equitable and proportional to the needs, capacities, responsibilities, contributions and/or efforts of the communities and their members. Once the benefits are distributed among communities, the surplus will be distributed among those in need, such as widows, orphans and the elderly.

A Commission for EBS, which is linked to the Association of Potato Park communities, oversees its implementation. Micro-enterprise groups contribute a % to a community trust fund, which is shared amongst the community. CIP potato seeds are also given out as rewards for working on potato park activities. There are three levels of beneficiaries: those directly involved in the activities of the Park, those who participate in some activities and those that do not participate at the moment, but retain their right to

engage in activities of the Park - those most involved in potato park activities get the most. Benefits are distributed amongst the over 5,000 people who live in the Park.

3. INTERNATIONAL POLICY PROCESSES

Development of Indicators on TK

The indicators defined by policy makers and scientists are often too narrow for TK protection.² The CBD is going to adopt indicators of TK - the next 8(j) Working Group in November will make recommendations on this. There is space for indigenous and local communities to shape the indicators that will be used in national reports. The 8(j) Working Group is using the CBD Ecosystem Approach, which does not address cultural elements enough but provides an opportunity for promoting cultural indicators as it recognises the rights of indigenous and local communities. We need to define criteria for identifying indicators based on the concept of biocultural systems/ heritage, which links the debate to land rights. Indicators should reflect the health of BC systems as a whole, and highlight gaps and responses needed. Cultural indicators in particular need elaborating - these include for example respect for nature/mountain gods and reciprocity. Customary laws could also be an indicator of the health of ecosystems.

CBD Expert Group on TK related to Genetic Resources, Hyderabad June 09

The aim of the meeting was to advise to the ABS Working Group on questions submitted by the COP and inform the negotiation of the international ABS regime. A few experts argued that GRs do not always have associated TK, and one that screening is increasingly used to identify active properties rather than TK. But most agreed that where TK is associated with the GRs, the two are inseparable. TK often provides leads to GRs even if it does not match the end product, it adds value to GRs and should form part of the IR. The IR should embrace TK since most TK is associated with GRs. Should TK be across the IR given its links with GRs, or have a chapter devoted to it? Further work is needed to determine the exact relationship between GR and associated TK. The experts identified common characteristics of TK associated with GRs (rather than defining it).

It was agreed that communities hold rights over TK and thus their agreement should be obtained before accessing it. Communities have customary laws and defined authorities for access to biological resources, hence these are relevant to the IR. The African group has proposed a set of community protocols. Some experts argued that customary laws don't provide specific procedures for access to genetic resources, since the terminology of genetic resources is more recent, but these may evolve in response to the IR. Approaches are needed to deal with ownership of genetic resources - eg. state or land owner (states often want to claim ownership).

For PIC of TK holders, desirable elements were identified: a competent national authority; and competent authority at the level of ILCs with statutory authorisation. There is a need for legal recognition of ILC competent authorities and customary laws. Experts agreed that adequate safeguards and protective mechanisms are needed for use of TK accessed through databases or registers. Countries should also support the development of transboundary community protocols to provide users with clear rules for

² UNESCO uses language as a key indicator, but this can be misleading (eg. North American Indians have kept their language but lost much of their culture, while others have lost much of their language but maintained their culture). The ILO uses traditional occupation.

PIC. Experts also agreed that certificates would be useful to provide evidence of PIC with ILCs.

WIPO policy on TK protection – Prof Graham Dutfield, Leeds University

WIPO didn't have much role in the early 1990s, and wanted to find 'new beneficiaries'. The 1st move was a folklore meeting in Phuket, and since 2001 the IGC has met 14 times. It has produced some useful documents on TK, but has made little progress – industrialised countries have repeatedly opposed a legally binding instrument to protect TK, and indigenous participation has been limited. Its classification of the issues is patent like. At the last IGC in early July, the African countries suggested that the IGC mandate should be renewed to develop a legal instrument based on the IGC's policy principles on TK, with the text to be submitted to the General Assembly in 2011. But this proposal was opposed by all industrialised countries – there will not be a legally binding treaty and the IGC mandate will probably not be renewed. The future of the IGC will be decided at the GA meeting at the end of September.

Perhaps the end of the IGC is not a bad thing – it seems to have suffered from 'issue enclosure', where contentious issues get 'parked'. CBD Parties probably referred tricky IPR issues relating to GRs to the IGC with this in mind. FTAs are promoting even stronger IPR laws than there are in the US. The US IP interests are mainly about ensuring that other countries can't compete with them in certain areas of technology, products etc. Developing country politicians often agree to anything just so they can claim a 'success' even if their experts advise against it. The WTO is even less appropriate for TK protection as it would have to be linked to TRIPs – it is further discussing disclosure of origin.

The International Treaty on Plant Genetic Resources for Food and Agriculture and Farmers' Rights – Robert Lettington

The IT-PGRFA is a multilateral framework for the conservation and sustainable use of PGRFA. Its central operative element is a global access and benefit-sharing system tailored to the needs of agriculture – 'the Multilateral System'. It is the only functional ABS system at international level, and fully compatible with the CBD article 15. The Treaty objectives on conservation & s.use relate to all PGRs, but the multilateral system covers only listed crops and species, to facilitate access to crops that are important for food security and that countries are inter-dependent on for breeding purposes – that material is available as of right. Material accessed from the Multilateral System can only be used for research, training and breeding for food and agriculture, which can include for the development of commercial products.

If any IPR that restricts the further use of a product for research, training and breeding purposes is obtained, Benefit-sharing is mandatory, 1.1% of net sales. Where there is no such restriction on the use of a product, voluntary contributions are called for. All mandatory and voluntary benefit sharing monies go to a BS fund. The fund gives priority to farmers in developing countries who conserve and sustainably use PGRFA. The Treaty Bureau, on behalf of the Governing Body, put out a call for proposals for beneficiaries in December last year – these have to be submitted through the national focal points of Treaty parties and have to be for listed crops³. Grants are then allocated, but most of the funds were allocated to research organisations! It's a

³ The Annex lists species and varieties, including potato and maize.

challenge for farmers' organisations to develop proposals and at national level, and several participants noted that proposals from farmers organisations hardly ever get selected. The Potato Park received a grant, and is placing its collection in the MLS, thus linking GRs to land and culture.

Farmers rights are dealt with under Article 9. However it is a compromise as it includes multiple views of farmers rights and reserves implementation inc. determination of content and scope to the national level. 9.1. Recognises the enormous contribution of ILC and farmers to the conservation and development of PGRs which constitute the basis for agriculture worldwide. This implies farmers rights are based on pragmatic (eg. property or incentives) not innate rights/principles. 9.2 Requires Parties to take measures to protect and promote Farmers' Rights including: protection of TK, right to equitably participate in benefit- sharing, and right to participate in making decisions at national level. But it states that Parties 'should' not 'shall' and has other qualifiers to water it down. 9.3 'Nothing in this article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed. But seed laws contravene these rights in many countries (eg. Peru's FTA). Article 6 allows countries to review seed laws in relation to conservation and sustainable use. The original purpose of seed laws is so that farmers can be certain of the information about seeds - but they often don't match farmers' needs because the tests are done according to modern agriculture methods. The preamble emphasises the 3 points in 9.2 as fundamental to FRs so that gives them a bit more weight.

Implementing FRs - Resolution 2/2007 calls for views and experiences inc. from farmers and other stakeholders, but almost nothing was submitted. So the Third session of the Governing Body renewed its call for info and requested the Secretariat to convene regional workshops on FRs. These will inform the discussion and provide an opportunity to communicate to the Governing Body, and will be held before the next GB.

Potato Park entry into the FAO Treaty MLS (Alejandro Argumedo, ANDES, Peru): ANDES wrote a letter to the Secretariat to ask to put the Potato Park collection in the MLS - in fact the collection is already in the MLS through the agreement with CIP. The CIP agreement recognises that the rights over the collection belong to the community, so putting the collection into the MLS strengthens community rights. It gives recognition that landscapes are as important as gene banks, and hence brings an opportunity to push for more support for *in situ* conservation (which depends on livelihoods). It also gives the PP a direct say in how the MLS will be managed, and allows it to participate in national debates since Peru has not yet put its collection into the MLS and is trying to determine what its policy should be for this. Becoming part of the MLS changes the relationship of the PP with the national government, and opens the opportunity for greater recognition of communities in the Treaty. Therefore it is helping to further farmers rights. The repatriation agreement with CIP and the BC database of potatoes has helped, as has exchanges with other communities as it has increased the number of varieties in the PP collection. The principle of the PP is that the varieties it holds belong to all the communities of the Andes. We need a parallel system for sharing resources that is complementary to the IT for adaptation to climate change. The PP collection shows that communities can assert their own rights, and clarifies the meaning of 'sovereignty' over NRs.

UPOV: China is facing pressure to upgrade UPOV, which protects plant breeders' rights and undermines farmers' rights. Under UPOV, the member country should have its national plant variety protection (PVP) laws in place. According to UPOV 78, there is more space for farmers' on-farm saved seeds, and they can save, exchange and sell (within certain limitation) those seeds under so-called farmers' rights or farmers' privilege. The current Chinese PVP law is based on requests from UPOV 78. However, in UPOV 91, plant breeders' rights can expand to on-farm saved seeds, which may threaten farmers' seed system. China has to be cautious towards the upgrading issue. UPOV has the power of the seed industry behind it. The World Seed Conference on 8-10 September is a gathering of the seed industry and regional trade associations which aims to promote the importance of new plant varieties and PBRs/UPOV.

UN Permanent Forum on Indigenous Issues: The Forum meets once a year and has equal participation of indigenous and government permanent members - 16 in total. The main outcome is a report with recommendations. It advises other UN agencies on IP issues and can be used to lever pressure on other bodies eg. the CBD work on ABS. Its objectives are centred on indigenous peoples' well being and perspectives, so it is supportive of the holistic concept of CBH as basis for TK protection. The Forum's Expert Meeting on TK in Panama recommended that this be further explored. The Forum has a theme for each meeting - the next meeting will focus on Indigenous Peoples' Development with Identity, so this is relevant for our work on BCS/H as a type of development. They will have a technical workshop to inform the meeting. Members can also write papers- Mick Dodson is writing an expert paper on TK protection through customary law. Part of the mandate is to coordinate UN bodies on indigenous issues - next year the work of the CBD will be under discussion.

UN Human Rights Council: This replaced the Working Group on Indigenous Populations and provides a more focused forum for dealing with human rights abuses, including the DRIPs. It meets once a year, the next meeting will focus on the right to education. Seven country reports are submitted each year, and civil society can submit shadow reports independently to report particular concerns and put pressure on governments.

4. FUTURE RESEARCH PRIORITIES

The following key issues for further research were identified:

1. Development of trans-boundary protocols for protecting bio-resources and knowledge which are shared amongst communities in neighbouring countries - eg. in the Eastern Himalaya region where India borders with Nepal, Bhutan and China.

2. Understanding customary legal systems and improving links with formal systems:
- We need to understand the customary legal order as it is different to the western legal order, ie. the definition of law, source of law, legal structures and processes etc.
- How can links be made between different legal systems - legal pluralism - so that they are mutually respectful and supportive, rather than CL being weaker/lower ranking?

3. Ensuring PIC of TK holders: In CBD negotiations, although India and some countries say TK is a subject of the state, a number of countries have accepted the need for PIC of indigenous authorities, or dual authority where they exist alongside local governments. In many cases, indigenous authorities have been weakened as governments have introduced national laws, and so are not immediately obvious, but are still

functioning in many respects. Eg. in India it seems like panchayats are the main local authority, but when you dig under the surface, you see that traditional authorities still decide about many agriculture and NR issues, including in relation to seeds, medicinal plants and conflict resolution. Work is needed to understand the exact role/remit of these less obvious customary structures, so that they are also recognised by governments and strengthened - CBD article 10 (c) requires parties to protect and encourage customary use.

4. Understanding the nutritional value of traditional varieties, and wild foods/relatives, and promoting this through the media. This research would also be useful for protecting rights over derivatives, but could also bring opportunities for biopirates if its use is not properly addressed/managed. To address the loss of traditional varieties, we also need to understand their production, preparation methods and cultural value. We should focus on the health value of the whole traditional agriculture system, not just the seeds/crops. And see how the whole system contributes to its components - eg. genetic diversity is enhanced through TK and conservation of biodiversity, but policy makers argue that indigenous people do not contribute to genetic resources. We should look at all the advantages of traditional varieties (not just nutritional). There is much information on traditional varieties at local level - we need to package it for different consumers. The China case has done a scientific study on changes in genetic diversity in landraces, which is important for Participatory Plant Breeding and adaptation to climate change.

5. The role of TK and CBH in adaptation to climate change and strengthening resilience - see below.

6. Developing indicators of TK: We could develop holistic indicators for monitoring/assessing TK systems as a whole, based on the concept of biocultural systems/heritage.

The Indigenous Peoples' Biocultural Diversity and Climate Change Assessment Initiative (IPCCA) - Alejandro Argumedo, ANDES Peru

The IPCCA is a consortium of indigenous organisations which aims to empower indigenous peoples to develop and use indigenous frameworks to assess climate impacts on their biocultural systems and develop response strategies. Indigenous people who have played no role in carbon emissions are the main victims of climate change because most live in areas that are fragile ecosystems, eg. mountains where water sources are being lost due to melting ice caps. Traditional knowledge and practices have been proven to bring resilience in ecosystem management. Ecosystem resilience and diversity has been identified as a key cushion to the effects of climate change. The IPCCA involves a series of assessments of conditions and trends: how climate was in the past; how it is changing; and what needs to be done for adaptation and mitigation. It will be a global assessment of how CC is impacting on indigenous people and biocultural systems and will develop local strategies to strengthen resilience and biocultural diversity. It will use indigenous knowledge as the basis for the assessment. Each assessment will focus on a particular issue- eg. agrobiodiversity, forests. The conceptual framework uses the concept of 'Buen vivir' and within that, indigenous resilience in terms of: memory of historical change, visioning practice, biocultural diversity through practice and land rights; local governance structures and collective processes. It identifies external drivers that affect biocultural systems (direct and indirect) that need to be analysed.

Indigenous Biocultural Systems are complex systems of interconnected and interdependent parts that emerge out of long term interactions between indigenous peoples and their natural environments based on a reciprocal relationship. They house high biological and cultural diversity. Resilience of IBS emerges out of historical interactions in a holistic world providing a long term view of adaptation and change through IK. Continued adaptation for resilience is both proactive & reactive. IK systems provide vision, coupled to local processes for adaptive capacity. Biocultural diversity is a necessary resource for adaptive capacity. Indigenous resilience is a collective property, built through social networks and collective practice. For example, in the Potato Park the Biocultural system is the landscape with high agrobiodiversity through traditional cultivation of native potatoes and related cultural practice. Resilience is due to high biodiversity; cyclical process of historic change - Pachakutis; rituals for proactive adaptation and collective governance. The IPCCCA in the Potato Park is focusing on the impacts of CC on food crops and wild relatives.

The IPCCCA conceptual model will be adapted to each local context, to produce a framework of drivers that impact on local biocultural diversity and the ability to maintain indigenous resilience and buen vivir. IK will be used to drive the inquiry process, both in deciding the indicators to be measured and appropriate methodologies for local assessments. Traditional knowledge, experiences and practice on climate change, its impacts and adaptation strategies will be digitally documented and categorised into a knowledge base portal that will be a communication and networking tool using free software principles. Three assessments are starting -in the Potato Park, Peru, Kuna Yala Panama and Zapara-Waorani, Ecuador. Each will take 2-3 years. A tool kit of methods for the assessment will be placed on the IPCCCA website soon, www.ipcca.net. The assessment will feed into policy processes on climate change, biodiversity and indigenous people to strengthen indigenous perspectives in climate change debates.

Discussion - Possible future work on climate change

- Coastal Mijikenda communities in Kenya are very vulnerable to climate change due to sea level rise and effects on fisheries. They often have floods due to heavy rain which affect local agriculture and even infrastructure. Local people know when the rain is coming, through flowering plants, birds etc, and have drought resistant crops. We need to raise awareness of coastal communities about CC and explore local knowledge of how to adapt - the knowledge is there but not collected.
- The China team has done some initial work on climate change and adaptation, consulting farmers. Farmers are mainly using landraces again because they are more drought resistant than modern HYV. They want to do a more systematic study to look at temperature changes etc over a wider area; and the role of landraces, TK and traditional practices in adaptation to CC. Farmers can enhance adaptation through PPB and farmers own seed production. Future work could focus on the role of PPB in adaptation to CC, eg. by providing resistance to crop pests.
- In the Eastern Himalayan case, they found a number of climate related changes - rainfall, temperature, new pests, drying up of water sources, and changes in migration times of birds and flowering of plants. Adaptation has been mainly by women exchanging seeds between altitudes; many men have adopted commercial varieties which got pests and local innovations have decreased as they have become dependent on government extension workers. They could do a community assessment first, but they want to involve

mainstream institutions also in order to influence local and state officials and rice research institutions.

- In the Yanadi case, they depend on the Andhra Pradesh government for their sustenance - a work for food programme, the National Rural Employment Guarantee Programme. Could they plant trees under this scheme and so get benefits from emissions trading?

The debate on climate change is missing a strong link to sustainable agriculture, small farmers and customary management. Although awareness of climate change- biodiversity links has increased (eg. the CBD has an Ad hoc technical working group on CC), local people are still not central to the debate on. We need to win the argument that stronger community resources rights and NRM are needed to address the problem. There is a network of indigenous organisations working to promote community management/rights within REDD - Reduced Emissions from Deforestation and Degradation. REDD affects communities (through setting aside forests for protection), and Copenhagen will be very important to determine its objectives.

A possible proposal to participate in the IPCC could focus on agrobiodiversity or agri-food systems- including food crops, wild foods and medicinal plants, and be framed in the context of the food crisis and future problems of food availability. However, this project should keep its main focus on TK, agrobiodiversity and customary laws/rights, with climate change as a key theme but not the main focus of the research. The IPCC is about IPs conducting their own assessments, rather than having only formal/scientific assessments, but is not a full blown research project. Few people are working on customary laws relating to TK, and collective resource management regimes (as compared to individual/market approaches). We need to continue the work to develop local tools to protect bio-cultural heritage in different communities.

5. KEY ISSUES AND CONCLUSIONS

Customary values of Reciprocity, Equilibrium and Duality are widely shared by communities - meaning equal exchange between humans and with nature; maintaining harmony in society and nature; and everything has a complementary opposite. These values guide all aspects of life, including access and benefit-sharing. They mean that third parties should: recognise collective rights, maintain open access to resources transferred, use them to address community needs, and provide knowledge and bio-genetic resources in exchange. Even where customary laws have been weakened, open sharing values are still evident.

Traditional knowledge is closely inter-connected with and inter-dependent on bio-resources, landscapes, cultural and spiritual values and customary laws - both in the holistic worldview of TK holders and in practice, as shown by the 7 case studies. These components of TK systems make up a communities' collective bio-cultural heritage - or 'bio-cultural systems'. This holistic understanding should form the core of any legal and non-legal tools to effectively protect TK.

Traditional varieties are declining very fast across large areas (eg. the Himalayas). The reasons for this are often complex. In E. Himalaya study area, some farmers are not growing modern varieties but are using them as they are subsidised and cheap, so they are growing less traditional varieties; while others have adopted modern varieties

promoted by government extension programmes. Another study found that the decline is not because traditional varieties are less popular or nutritious but due to lack of constant availability in the market, so less is bought and less is grown. The media also has a big influence over what people buy and does not promote traditional varieties.

Revival of cultural identity is enhancing biodiversity. In the Andean Potato Park, traditional varieties have increased over the last five largely because of their cultural significance - they provide a cultural link to ancestors and make the communities feel distinct. In the Eastern Himalayas, there is a move to revive cultural identity amongst the tribals, who feel they are a minority dominated by the Nepalese. In China, new rules for community NRM are emerging through local farmers' organisations, which are like customary laws, but less comprehensive.

Reciprocal exchange enhances biodiversity. In the Andean Potato Park, traditional varieties have increased over the last 5 years due to the repatriation agreement with the CIP which is based on reciprocal exchange. This has brought 400 varieties, and seed exchanges with other communities has brought another 100.

Cultural information is embedded in genetic resources. The return of traditional seeds to communities in the Andes and in SW China which have been lost for 30 years or more, has revived lost knowledge and cultural practices associated with the seeds (eg. ceremonies to make them function, and traditional recipes, which in turn link to other resources in the landscape eg. herbs)

Legal pluralism: Customary law is usually weaker than formal law (eg. because it is orally held). Respectful links are needed between the legal *structures* of different cultures, not just laws, so that different legal systems recognise one another without dominating. This is in line with the customary principle of 'Duality'. Political independence is vital for the retention of customary laws that underpin customary use of biodiversity.

Effective Protection of TK often requires a range of local tools, including non-legal (community resource management, registers, value addition) and legal (local protocols and laws recognising rights over bio-cultural heritage). Strengthening TK systems for community food & nutrition needs should take priority over market-based tools that can undermine cultural incentives, but this is not always possible (eg. where communities have lost their land and rights to use bio-resources).

Farmers are already using genetic diversity to adapt to climate change where traditional varieties and practices have been maintained. New seed laws are threatening the rights of farmers to save, sow and exchange - and hence maintain - their traditional varieties.

6. RECOMMENDATIONS for the International ABS Regime, seed & medicine policy

The CBD's International Regime on ABS - Addressing Traditional Knowledge

The International Regime should promote all three objectives of the CBD by emphasising local benefits and incentives, and supporting articles 8j and 10c which recognise the key role of traditional knowledge and customary use by indigenous and local communities in biodiversity conservation and sustainable use. It should therefore recognise the rights of indigenous and local communities over their bio-cultural systems as a whole, including

TK and associated genetic resources, landscapes, cultural values and customary laws. In particular:

1. Recognising community rights over genetic resources associated with TK

- The International Regime should recognise the rights of indigenous and local communities over genetic resources associated with TK. TK is inextricably linked to genetic resources - the two cannot be delinked. Farmers have manipulated genetic resources for centuries by selecting particular traits - thus they do have TK relating to genetic resources. Traditional farming systems enhance genetic diversity - the whole system contributes to its components.
- The IR should recognise community rights over Landraces: TK is embedded in traditional varieties developed and conserved by farmers - these varieties are community *innovations*. So the IR should recognise the rights of indigenous and local communities over their traditional varieties, consistent with the FAO International Treaty on PGRFA which recognises farmers rights to participate in benefit-sharing from the use of genetic resources.
- The IR should recognise the rights of traditional healers over bio-genetic resources related to traditional health knowledge. Traditional healers are key healthcare providers in many rural areas and need to maintain access to bio-resources to continue this role.

2. Recognise community authorities and customary laws for granting PIC

- The IR should ensure that access to TK and associated GRs is subject to the PIC and customary laws and procedures of indigenous and local communities. In some cases, community authorities have been weakened, and are thus not immediately obvious, but are still deciding on community natural resource issues. Efforts should be made to identify such customary authorities so that they can provide PIC and be strengthened through the process (as required by CBD article 10c).
- The Working Group on ABS should make reference to the work of the 8(j) WG on sui generis systems in addressing TK in the IR.

Seed policy: Plant Breeders Rights - both the UPOV Convention and national seed laws - are contributing to the erosion of traditional seed varieties because they undermine farmers' rights - UPOV '91 can expand PBRs to on-farm seeds which may threaten the farmers' seed system. PBRs also allow plant breeders to use traditional varieties and knowledge to develop modern varieties without any benefit-sharing. Revising these laws so that they support, and don't undermine, farmers' rights, is critical to enable farmers to maintain the traditional varieties they need for adapting to climate change.

Traditional medicine policy: The traditional health systems of rural communities should be recognised and supported by national health systems. Requirements to certify traditional medicines according to western clinical standards is problematic for healers who often don't have access to the facilities or resources required. Traditional medicines have been proven to be safe through hundreds of years of use. Governments and medical practitioners should support traditional healthcare provision so that all rural people can have access to affordable healthcare.

Annex 1 - Workshop Participants

Krystyna Swiderska, IIED UK (krystyna.swiderska@iied.org)
Michel Pimbert, IIED UK
Ruchi Pant, Ecoserve India
Vedavathy Sanagavarapu, Herbal and Folklore Research Centre, Tirupati, India
Yiching Song, Centre for Chinese Agricultural Policy, China
Jingsong Li, Centre for Chinese Agricultural Policy, China
Alejandro Argumedo, ANDES Peru
Peter Munyi, Southern Environmental & Agricultural Policy Research Institute, ICIPE, Kenya
Doris Mutta, Kenya Forestry Research Institute (KEFRI)
Flavia Noejovich, Legal consultant (Peru study)
Robert Lettington, Legal/ FAO specialist, Kenya
Jaji Carino, Tebtebba Foundation
Prof. Graham Dutfield, Leeds University
Nina Moeller, Lancaster University
Martin Pedersen, Lancaster University
Alessandra Giuliani, IIED

Annex 2 - Indigenous Communities Participating in the Research

- Andean Quechua and Q'eros, Cusco Peru
- Kuna and Embera-Wounaan, Panama
- Lepchas and Limbus, E. Himalayas, India
- Yanadi, Andhra Pradesh, India
- Adivasi, Chattisgarh, India
- Zhuang and Yao, Guangxi, SW China
- Mijikenda and Maasai, Kenya