

"Non-Wood Forest Products (NWFPs) consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests."

«Les produits forestiers non ligneux sont des biens d'origine biologique autres que le bois, dérivés des forêts, des autres terres boisées, et des arbres hors forêts.»

«Productos forestales no madereros son los bienes de origen biológico distintos de la madera derivados de los bosques, de otras tierras boscosas y de los árboles fuera de los bosques.»

(FAO's working definition)

## ACACIA TREE CAN BOOST CROPS ACROSS AFRICA

Nairobi. African farmers could triple yields by planting a type of acacia tree that sheds its nitrogen-rich leaves in time for the growing season alongside their crops.

The fast-growing, hardy species, *Faidherbia albida*, which has common names including apple-ring acacia and *ana* tree, also has a wide range of other benefits, according to Dennis Garrity, Director General of the World Agroforestry Centre in Nairobi, Kenya. "Besides organic fertilizer and livestock fodder for farmers, it also acts as a windbreak, provides wood for fuel and construction and cuts erosion by loosening the soil to absorb water during the rainy season," he said at the 2nd World Congress of Agroforestry in Nairobi this week (24 August). "The tree becomes dormant and sheds its leaves during the early rainy season at the time when seeds need fertilizer and regrows them at the beginning of the dry season, so not competing with crops for light," Garrity told SciDev.Net. Planting the trees can nearly triple yields, he says. In Malawi, maize yields under the acacia canopy are 280 percent higher than outside it.

The acacia variety is already grown on farms in western Africa, as well as in Ethiopia, Malawi and the United Republic of Tanzania. But uptake has been minimal in other parts of Africa. Despite 60 years of research and more than 700 scientific publications on *F. albida*, few farmers – especially in parts of eastern and Central Africa – know of its potential.

As Garrity notes, the tree can thrive in a wide range of conditions and is suitable for planting across the continent. He says the lack of knowledge about the acacia highlights a need for research agencies to find more effective ways to reach farmers. Governments must also invest in generating and communicating research, he adds.

Nobel Peace Prize winner Wangari Maathai, founder of the Green Belt Movement in Kenya, says that the lack of extension services that tap into agroforestry science from research institutions and universities and then pass information to smallholders is a great disservice to the quest for food security in Africa. There is a pressing need to communicate research findings to farmers in languages they can understand, Maathai says. (Source: AllAfrica.com, 27 August 2009.)



## AFRICAADAPT LAUNCHES NEW FUND FOR INNOVATIVE KNOWLEDGE SHARING

Africa's poor and vulnerable communities rarely have the opportunity to share their valuable experience and learn from others in broader or more formal exchanges of knowledge on climate change adaptation. AfricaAdapt is launching its new Knowledge Sharing Innovation Fund promoting new ways of sharing knowledge that can help address this problem.

The Fund will offer grants of up to US\$10 000 to projects that seek to overcome barriers to share knowledge with "hard to reach" or marginalized African communities. These barriers may be related to language, access to information and marginalization through gender or disability.

Ensuring that vulnerable communities are active in the exchange of African knowledge, best practices and expertise on climate change adaptation is a high priority for AfricaAdapt. These communities are the most directly threatened by climatic impacts yet they also have a wealth of

experience in adapting to past changes that could benefit other communities.

**FOR MORE INFORMATION PLEASE CONTACT:**  
AfricaAdapt Secretariat, c/o Institute of Development Studies at the University of Sussex, Brighton BN1 9RE, United Kingdom. E-mail: [info@afrika-adapt.net](mailto:info@afrika-adapt.net)

## ARE NTFPS A WAY OUT OF POVERTY?

Over the last 30 years, policy-makers and conservation NGOs have focused on the sustainable production and commercialization of NTFPs. Is this a way forward in tropical forested areas for successful conservation and rural development?

Development strategies try to include local people in the management and governance of natural resources such as forests, so that they receive more of the benefits. This contrasts with preservationist environmental policies, which excluded people from forests. Strategies that support the collection and commercialization of NTFPs by local people have the potential to provide an increased source of income for people living in or near forests.

NTFPs also have important subsistence uses, for example by providing a "free" source of food, medicines, fuel and construction materials. And, if properly managed, NTFPs can be an incentive for forest communities to protect existing forests and restore degraded areas, to ensure their source of income is sustainable.

However, forests are being cleared as the global demand for timber rises and as ranching and large-scale agricultural activities expand. Many species fundamental to forest livelihoods are vulnerable and forest resources are declining.

This has alarming consequences for subsistence use and local trade. For example, between 1970 and 1990, the number of species extracted by the timber industry in the eastern Brazilian Amazonia rose from fewer than 20 to over 300. At least one-third of the 300 also had value for local people as food, medicine or fuel.

While dramatic landscape change takes place across many developing countries, the sustainable production of many NTFPs is under threat. Policy-makers and development practitioners need a better understanding of the changing role of forest resources for local livelihoods.

In a recent issue of *insights*, scientists working with NWFPs have identified some fundamental policy and management issues.

Marketing NTFPs is an important conservation and development strategy. It can add economic value to forested areas without cutting trees while providing local people with a sustainable, productive activity. For this to happen, researchers and policy-makers must collaborate to make community-based forest management initiatives socially and economically viable.

Elaine Marshall argues that NTFP commercialization is only successful where it is transparent, equitable and sustainable, with a positive impact on poverty reduction, gender equality and resource access, tenure and management. This is more likely if:

- producers, processors and traders collaborate with each other and realize the need for continuous innovation to add value to existing NTFPs and explore new markets; and
- there is external support from market intermediaries (such as governments, international agencies and the private sector) to support producers and traders in overcoming the barriers to entering markets, including legislative constraints, the inconsistent quality and quantity of products, and the lack of market information.

Policy frameworks for the production and commercialization of NTFPs are rarely compatible with forest peoples' situations, however. Getting information and credit depends on appropriate access to transport and communications infrastructure, which are deficient in forest areas. Patricia Shanley gives the inspiring example of the *Frutíferas* (Fruit trees of the forest in the lives of Amazonians) book, which is improving access to reliable and useful information on NTFPs in Brazil. NTFPs are rarely sufficient in themselves to support households but often play a central role during "hungry" seasons.

Reflecting on wildlife products in Equatorial Guinea, Sophie Allebone-Webb, Guy Cowlshaw and J. Marcus Rowcliffe show that the rational extraction and use of NTFPs can improve livelihoods for different forest groups. While bushmeat hunting is predominantly a male activity, for example, the increased marketing of forest plants can increase women's opportunities to earn income.

The collection, processing and trade of NTFPs should encourage forest populations to use their traditional knowledge to help preserve existing forests and reforest degraded areas. Yet most forest people have

poor access to markets, insufficient capital to invest in improving their livelihoods, and little or no bargaining power when selling their products in markets.

Jean-Laurent Pfund argues that it is important to understand how market chains operate, from harvesting to the end market. This helps identify obstacles and understand which stages have the most potential to benefit poor people. A fairer trade environment for everyone involved in market chains is crucial.

Fat from sal seeds, for example, has enormous economic potential in India for export and domestic markets. Increasing their collection could increase the incomes of approximately 30 million forest dwellers. Sanjoy Patnaik shows, however, that the legal framework for supplying this product does not support poor people who collect seeds. In contrast, a recent policy in Brazil that set minimum prices for ten NTFPs promises to secure minimum trading conditions for local producers.

Susann Reiner uses evidence from South America to identify further constraints to NTFP-based livelihoods. Merely gathering NTFPs rarely generates enough revenue to sustain the households harvesting them. Lacking direct access to markets, they depend on intermediaries to sell their products, thus reducing their share of the income. Processing locally gathered NTFPs could add value and contribute to poverty alleviation and the sustainability of NTFPs.

Dependence on a single NTFP can be a problem, increasing people's vulnerability caused by variations in yield, market demand and prices. Overharvesting is also common where harvesters depend on one resource. This can leave people without their only source of subsistence; it can also threaten local biodiversity. Kaspar Schmidt provides a compelling example of the risks facing farmers in Kyrgyzstan, dependent on uncertain walnut harvests.

NTFPs rarely provide a pathway out of poverty because poor people have limited access to the assets needed to exploit them, such as rights to use resources, information, financial capital or credit to invest in harvesting, production, processing, transport and marketing. They also lack political capital to influence policies; social capital or opportunities to work together to increase their bargaining power; and physical capital such as processing equipment, storage facilities and transport infrastructure.

Developing NTFP markets can offer sustainable alternatives for forest areas.

Strategies need to address a range of issues.

- Women and men play different roles in NTFP market chains and benefit in different ways. A gendered analysis is important in supporting households dependent on forest resources.
- NTFP initiatives must make existing forests more or as profitable as the economic activities that threaten forest areas, such as cattle ranching or logging.
- Scientific evidence needs to merge with traditional knowledge to provide a better understanding of the socio-economic and ecological environments in which NTFPs are used.
- Developing NTFP market chains will require investing in other areas such as access to credit, transport and training in sustainable forest management, including the collection, processing and trade of NTFPs.

(Source: Editorial by Mônica Barroso. 2009. *Are NTFPs a way out of poverty?* id21 insights 77, May. Brighton, United Kingdom, id21, Institute of Development Studies at the University of Sussex.)

Download: [www.eldis.org/go/topics/insights/2009/](http://www.eldis.org/go/topics/insights/2009/)



**BEER BREWED WITH  
NTFPS PROMOTES  
FORESTRY  
CERTIFICATION**

An Italian brewery has become the first to carry the Programme for the Endorsement of Forest Certification (PEFC) label on a beer. Brewer Gino Perisutti's Blonde PEFC Mountain Pale Lager contains spruce bark, mountain pine buds and Scots pine needles from PEFC-certified forests. It was officially launched at the PEFC National Members' meeting in Geneva.

"While NWFPs play only a minor role in forest certification, they are testimony to the passion of alpine forest owners, who also distil PEFC-certified *mugolio* oil from dwarf pine," said Antonio Brunori, PEFC Italy's Secretary General. "Moreover, such products offer great potential to communicate the value of responsible forestry to the public." (*Source: The Timber Industry Magazine*, 1 July 2009.)

**FOR MORE INFORMATION PLEASE CONTACT:**

**Dr Antonio Brunori, Segretario generale PEFC Italia, Strada dei Loggi, 22 – 06135 Perugia, Italy.**  
**Fax: +39- 075/5997295; e-mail: info@pefc.it;**  
**www.pefc.it**

*(Dr Brunori is the author of the guest article in this issue of Non-Wood News.)*



**BIOPROSPECTING/  
 BENEFIT-SHARING  
 OR BIOPYRACY?**

**India in talks with the United States of America for granting access to TK data to curb biopiracy**

After sharing its database of the Traditional Knowledge Digital Library (TKDL) with European countries, India is now in talks with more countries, including the United States of America, for a similar agreement to grant access to these details in a bid to prevent wrong patents across the world on Indian medicinal plants.

Talks with the United States Patent and Trademark Office (US PTO) are in an advanced stage and the agreement will soon be concluded. Likewise, the authorities are also negotiating with other countries such as Japan and China so that it becomes a "win-win" situation for all sharing countries, said sources at the National Institute of Science Communication and Information Resources (NISCAIR).

In February 2009, India granted access to TKDL to the examiners at the European Patent Office (EPO) to prevent attempts at patenting existing traditional knowledge and to curb biopiracy. Sources said the trend of giving wrong patents has decreased, especially after India successfully set up TKDL. In a study carried out in 2000 by the TKDL task force, as many as 4 896 patent references were found on medicinal plants at the international level. This figure increased to 15 000 in 2003, and to 35 587 in 2005.

As a consequence of successfully fighting the wrong patents granted at the US PTO on

turmeric (*Curcuma longa*) and at the EPO on neem (*Azadirachta indica*), TKDL was created, since fighting incorrect patents was expensive and time consuming. TKDL establishes prior art for approximately 2.04 lakh formulations transcribed in five international languages – English, French, German, Spanish and Japanese – and prevents the granting of wrong patents, if claimed at the international patent offices.

TKDL is a joint venture between five agencies, including NISCAIR and the Council of Scientific and Industrial Research (CSIR). The vast database includes 54 authoritative textbooks on Ayurvedic medicine, nearly 150 000 Ayurvedic, Unani and Siddha medicines and 1 500 physical exercises and postures in yoga, more than 5 000 years old.

TKDL allows examiners to compare patent applications with existing traditional knowledge. New patent applications need to demonstrate significant improvements and inventiveness compared with prior art in their field. TKDL is so precise that it lists the time, place and medium of publication for prior art. This new catalogue system, called the Traditional Knowledge Resource Classification (TKRC), ensures meticulous documentation.

More countries across the globe are also framing such databases and sharing with other countries. In 2008, the Chinese patent office (SIPO) granted the EPO access to its 32 000-entry database on traditional Chinese medicine. (*Source: Pharmabiz.com [India]*, 2 November 2009.)

**Medicinal plants face greater risk of biopiracy in Thailand after H1N1 outbreak**

Biodiversity advocates are warning the Department of Intellectual Property to tread carefully in granting patents to foreign firms to make flu drugs from Thai herbal plants, especially the well-known *fah talai jon* (*Andrographis paniculata*).

The number of patent applications to extract *fah talai jon* chemical substances by foreign researchers has risen dramatically after the outbreak of type A (H1N1) flu earlier this year, said Witoon Lianchamroon, Director of Biothai, a non-profit organization working on biodiversity conservation. The Institute of Thai Traditional Medicine says clinical studies on *fah talai jon* show that it is effective in easing flu symptoms such as sore throats and diarrhoea. Mr Witoon said granting patents for herbal medicines or production methods to foreigners would limit chances for Thais to make use of the medicinal plant.

Patenting the chemical extract of *fah talai jon* would only repeat the mistake of the *plao noi* incident, in which Japanese pharmaceutical firms patented medicinal ingredients and methods of extraction for the herb.

"The department must check carefully whether any patent application breaks the international biological diversity treaty and Thailand's 1999 Plant Varieties Protection Act," Mr Witoon said. "Although *fah talai jon* is not found only in Thailand, countries possessing the precious herb should work together to protect their rights from biopiracy."

The Intellectual Property Department said it had received a number of applications from abroad to patent activities for developing herbal plants, including *fah talai jon*, red onion, ginger, *plai* and *ya nguang chang* (Indian heliotrope).

Supaporn Pitiporn, Head of Pharmacy at the Chaophaya Abhaibhubejhr Hospital in Prachinburi, which is famous for developing herbal medicines, said it was difficult for Thai researchers to get patents because of their limited knowledge. (*Source: Bangkok Post*, 28 July 2009.)

**Peru's patent win strikes blow against biopiracy**

Peru has prevented several foreign companies from taking out patents on products by demonstrating that they were developed using Peruvian traditional knowledge.

Over the past few months, the Peruvian National Commission against Biopiracy has shown authorities from France, Japan, the Republic of Korea and the United States of America that products submitted for patents were developed using the traditional knowledge of Peruvian people. It showed that the products lacked the innovation and inventiveness required for patents.

"This is a good example of how coordinated action between the state, the business sector and civil society can prevent inappropriately granted patents related to genetic resources and traditional knowledge," Andrés Valladolid, technical coordinator at the Commission, told SciDev.Net.

The products are derived from *Lepidium meyenii*, *Plukenetia volubilis* Linn. and *Myrciaria dubia* – three plants well known among indigenous Peruvian populations for their medicinal properties.

The Commission monitors 69 Peruvian genetic resources on databases at the world's main patent offices. "We don't want

to forbid companies from using our genetic resources or traditional knowledge – but they have to reward the indigenous people fairly," Valladolid says. (Source: SciDev.Net Weekly Update, 13–19 July 2009.)

## BLENDING INDIGENOUS KNOWLEDGE AND MODERN TECHNOLOGY



Strengthening indigenous peoples' knowledge systems and blending them with appropriate modern technology can enhance livelihood options, revitalize agriculture, increase food security and improve health. Indigenous peoples' knowledge about medicinal plants or underutilized plant species has been used and capitalized on with very powerful effects both in local programmes and by promoting fair national and international value chains, always with the participation of local communities, governments, donors and other partners such as the private sector and NGOs.

In the Indian state of Andhra Pradesh, modern techniques and tribal knowledge have been brought together to develop innovative NTFPs, such as gum karaya, clearing nut, neem and others. Within a short period, the quality of the gum karaya improved and prices rose by up to 250 percent, while four value-added by-products were developed: powder, granules, cream and gel. The gum karaya initiative was a major source of income for about 12 000 tribal people and an important source of employment for tribal women.

Indigenous peoples' knowledge, especially that of indigenous women, may hold the key to increased food security, adaptation capability, protection of natural resources, disaster prevention and other challenges related to climate change. (Source: IFAD Policy on Engagement with Indigenous Peoples; EB 2009/97/R.3.)

## CINDERELLA FRUIT: WILD DELICACIES BECOME CASH CROPS

If you had come here ten years ago, says Thaddeus Salah as he shows us round his tree nursery in northwest Cameroon, you would have seen real hunger and poverty. "In those times," he says, "we didn't have enough chop to eat". It was not just food – "chop" in the local dialect – that his family lacked. They could not afford school fees, health care or even chairs for their dilapidated grass-thatch house.

Salah's fortunes changed in 2000 when he and his neighbours learned how to identify the best wild fruit trees and propagate them in a nursery. "Domesticating wild fruit like bush mango (*Irvingia gabonensis*) has changed our lives," he says. His family now has "plenty chop", as he puts it. He is also earning enough from the sale of indigenous fruit trees to pay school fees for four of his children. He has been able to re-roof his house with zinc sheets and buy goods he could only dream of owning before. He even has a mobile phone.

From Salah's farm we gaze across the intensively cultivated hills that roll away towards the Nigerian border. "Ten years ago, you'd hardly see any *safou* (*Dacryodes edulis*) in this area," says Zachary Tchoundjeu, a botanist at the World Agroforestry Centre's regional office in the Cameroonian capital, Yaoundé. "Now you see them growing everywhere."

The spread of African plum throughout these hills is one small part of a bigger movement that could change the lives of millions of Africans. The continent is home to some 3 000 species of wild fruit trees, many of which are ripe for domestication. Chocolate berries, gingerbread plums, monkey oranges, gumvines, tree grapes and a host of others could soon play a role in ensuring dependable food supplies in areas now plagued by malnutrition.

Rural Africans consume an enormous variety of wild foodstuffs. In Cameroon, fruits and seeds from around 300 indigenous trees are eaten, according to a study by researchers at Cameroon's University of Dschang. A similar survey in Malawi and Zambia found that up to 40 percent of rural households rely on indigenous fruits to sustain them during the "hungry months", particularly January and February, when supplies in their granaries are exhausted and they are waiting for their next harvest.

Some of these so-called "famine foods"

have already been domesticated by accident, says ethnobotanist Anthony Cunningham of People and Plants International, an NGO based in Vermont, United States of America. He cites the example of *marula* (*Sclerocarya birrea*), a southern African tree in the cashew family with edible nutty seeds encased in a tart, turpentine-flavoured fruit. "Long before the development of agricultural crops, hunter-gatherers were eating *marula* fruit," he says. "They'd pick the best fruit, and then scatter the seeds around their camps." These would eventually germinate and mature into fruit-bearing trees, ensuring, in evolutionary terms, the survival of the tastiest. *Marula* is now fully domesticated and the fruit is used to make juice, a liqueur called Amarula cream and cosmetic oils.

"If you come back here in ten years' time, I hope – I'm sure – you'll see improved varieties of indigenous fruit trees on every smallholding," says Tchoundjeu. "I think you'll see a great diversity of different tree crops and a much more complex, more sustainable environment. And the people will be healthier and better off." (Source: *New Scientist*, 10 November 2009.)

## DEVELOPMENT AGENCIES CALL FOR INDIGENOUS PEOPLE TO PLAY A ROLE IN FOREST MANAGEMENT

A new report calls on industrialized countries to ensure financial support to efforts to conserve and manage forests. The report says indigenous people in Asia should play a key role in forestry, to help reduce greenhouse gas emissions.

The report by the conservation group Forests Dialogue says indigenous communities must be involved in decisions about managing forests in the Asia-Pacific region.

The loss of forest cover globally amounts to as much as 13 million ha/year. Deforestation is a prime contributor to greenhouse gas emissions, largely CO<sub>2</sub>, which scientists say contribute to global warming.

The report was unveiled on the sidelines of United Nations climate talks in Bangkok on Thursday. The meetings here are to pave the way for a global agreement on cutting greenhouse gas emissions and preparing for climate change, which is to be drafted in Copenhagen in December.



"Drawing from our experience over many difficult situations around the world, and if we've learned anything in the last 25 or 30 years, it is that we really need to be very thorough and effective in involving local people, local stakeholders in forestry management," said Patrick Durst, an FAO forestry official. "Without that, we certainly set ourselves up for failure."

The United Nations has introduced the programme on reducing emissions from deforestation and forest degradation, or REDD. Working with various UN agencies, the programme hopes to create a system in which industries or nations that produce large amounts of greenhouse gas can offset that by paying other nations to protect their forests.

Pilot projects have begun in Papua New Guinea, Indonesia and Viet Nam. In Nepal, under a government-backed programme, more than 14 000 forest user groups have regenerated over 1.25 million ha of degraded forest area in the past decade.

The Forests Dialogue group asks that developed nations robustly fund the REDD programme and make sure that the money goes to the forest people who need it.

Vicki Tauli-Corpuz, who heads the UN Permanent Forum on Indigenous Issues, says the REDD strategy will not work unless forest communities are involved. "The key challenges in implementing REDD are really the involvement of the indigenous people and the local communities in making decisions about REDD and in receiving benefits from REDD," Tauli-Corpuz said. "I mean all of the measures in relation to forests are really very centralized. If you cannot deal with that, I don't think it is really going to succeed."

The United Nations is trying to establish an international REDD finance mechanism to be included in any global climate agreement drafted in Copenhagen in December. (*Source: Voice of America, 1 October 2009.*)



Established in 2008, the FairWild Foundation promotes the sustainable use of wild-collected ingredients, with a fair deal for all those involved throughout the supply chain.

The increasing demand for wild plants – as ingredients for food, cosmetics, well-being and medicinal products – poses major ecological and social challenges. The pressure on potentially vulnerable plant

species can endanger local ecosystems and the livelihoods of collectors, who often belong to the poorest social groups in the countries of origin.

As a response to these concerns, the FairWild Foundation promotes the FairWild Standard and certification system for the sustainable management and collection of wild plants.

FairWild Certification means that buyers know they are supporting fair trading – the products are legally and sustainably sourced, and the benefits are felt by all those involved right down to the local communities harvesting the wild plants. Products that can be certified include those collected from the wild (e.g. medicinal and aromatic plants, berries, wild fruits, nuts and seeds, mushrooms and honey), and raw materials for finished products (e.g. essential and fatty oils).

The FairWild Standard assesses the harvesting and trade of wild plants against various ecological, social and economic requirements. Use of the FairWild Standard helps support efforts to ensure plants are managed, harvested and traded in a way that maintains populations in the wild and benefits rural producers. The FairWild Standard is also proving instrumental for the implementation of existing regulatory frameworks provided by National Resource Management Systems as well as by international conventions such as the Convention on Biological Diversity (CBD) and the Non-Detriment Findings Process of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).

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**FOR MORE INFORMATION, PLEASE CONTACT:**

**Klaus Dürbeck, The FairWild Foundation,  
Weststrasse 51, CH-8570 Weinfelden,  
Switzerland. Fax: +41-71-6 26 06 23; e-mail:  
info@fairwild.org or k.duerbeck@duerbeck.de;  
www.fairwild.org.**



Rural women and men often have disparate knowledge of forest resources and different roles in tree and forest management. Women practise traditional agroforestry production systems, such as home gardening, and harvest and sell wood and tree products as part of small-scale enterprises. They are mainly responsible for collection of fuelwood for the household, and

for wild plants used as food and medicines. Men are involved more in high-value activities such as cutting and hauling timber.

But gender roles vary – in parts of Nepal, men weave bamboo baskets, while in the Lao People's Democratic Republic, women are more active in the craft. Women are the sole collectors of fuelwood in Bhutan, but men help out in Sri Lanka. Research suggests that trees and forests are more important to rural women's livelihoods than to those of men. In Madagascar, poor women in one community earned 37 percent of their income from forest products, compared with 22 percent earned by men. In Andhra Pradesh, 77 percent of women's income in some areas was derived from forests. In many countries, forest land is owned by the state, while local men have rights to trees and women to tree products such as fruit. On Pacific islands, women harvest breadfruit for food, but breadfruit trees are controlled by men, who use the timber to make furniture. For both men and women, access to forest resources is becoming complex, as rights based in negotiable customary law give way, increasingly, to government action to protect threatened forest habitats by restricting human encroachment.

Restrictions on access affect men and women in different ways. In sub-Saharan Africa, responsibility for caring for household members afflicted by HIV/AIDS falls mainly on women, leaving less time for agricultural production. As a result, they are becoming more reliant on forest foods and income from fuelwood. During conflicts and natural disasters, displaced rural people also become more reliant on forest products and services. Given their responsibility for meeting household food and fuel needs, depletion of forest resources especially increases burdens on women. A study in Malawi found deforestation was forcing elderly women to walk more than 10 km a day to collect fuelwood. Women spend on average 800 hours a year in Zambia and 300 hours a year in the United Republic of Tanzania on the same task. In East Africa, fuelwood scarcity has led to a reduction in the number of meals cooked in poor households. (*Source: Bridging the gap. 2009. FAO's Programme for Gender Equality in Agriculture and Rural Development.*)

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**FOR MORE INFORMATION, PLEASE CONTACT:  
Economic and Social Development Department,  
FAO, Viale delle Terme di Caracalla,  
00153 Rome, Italy. E-mail: gender@fao.org;  
www.fao.org/gender/**



## GESTION DE LA FAUNE SAUVAGE ET DE LA NATURE EN AFRIQUE: ÉVOLUTION ET SUCCÈS

La plupart des espèces «sensibles» de faune et de flore en Afrique ont toujours bénéficié d'une certaine forme de protection: celle-ci advient à travers le système des totems, lesquels pourraient être assimilés à des liens de sang entre certaines espèces et des patronymes ou des clans. A ce titre, ces derniers se doivent de protéger cet animal, de ne jamais manger sa chair, et de faciliter en tout temps sa survie. Pendant les dernières années de la colonisation et surtout au cours des décennies qui ont suivi les indépendances, du fait d'administrations inexpérimentées et mal outillées sinon inexistantes, la faune sauvage africaine a subi un massacre systématique de la part de braconniers mieux équipés que la plupart des armées nationales, et qui bénéficiaient de filières très organisées leur assurant richesse et impunité. Ce pillage a été aggravé par la destruction massive des habitats issue de divers facteurs: l'exploitation forestière; la collecte du bois de feu; et le défrichement de nouvelles terres agricoles, effectué tant pour répondre à des besoins de subsistance que pour instaurer de vastes étendues de cultures commerciales.

C'est dans ce cadre que, dans les années 70, la Commission des forêts pour l'Afrique a décidé de créer un groupe de travail sur la faune sauvage et les parcs nationaux, changeant ainsi de nom pour devenir l'actuelle Commission des forêts et de la faune sauvage pour l'Afrique: il s'agissait par là de bien marquer l'égale importance accordée par les pays d'Afrique aux forêts et à la faune sauvage. Cela a donné lieu à l'avènement d'initiatives telles que le projet CAMPFIRE au Zimbabwe, un programme de gestion communautaire des ressources indigènes qui a permis à plus de 80 pour cent des communautés rurales d'améliorer notablement leurs conditions de vie, grâce à l'écotourisme et à la gestion de la faune sauvage. Au Ghana, un petit projet de la FAO a contribué à assurer les moyens d'existence et la sécurité alimentaire des agriculteurs autour de la zone de conservation de Kakum, en mettant au point des techniques simples pour tenir à distance des cultures les éléphants, dont les incursions fréquentes détruisaient régulièrement toutes les récoltes.

Les conflits potentiels entre la présence de la faune et les activités humaines sont encore loin d'être bien cernés, de même que la

question de la gestion des aires protégées dans le contexte de l'aménagement global de l'espace rural. C'est pourquoi il convient plus que jamais de renforcer les échanges et la coopération régionale, en particulier à travers des mécanismes et des instruments appropriés: tout d'abord le Groupe de travail sur la gestion de la faune sauvage et des aires protégées relevant de la Commission des forêts et de la faune sauvage pour l'Afrique, mais aussi des revues telles que *Nature et Faune*. Il faudrait également une plus grande intégration de la dimension faune dans les programmes et projets forestiers en Afrique. [Source: FAO. 2008. Gestion de la faune sauvage et de la nature en Afrique: évolution et succès. Dans *Nature et Faune*, 23[2].]



## LAWS AND POLICIES FOR SUSTAINABLE AND EQUITABLE NTFP USE

People have long developed and depended upon species from diverse ecosystems. Products from the wild, known as NTFPs, are used by communities around the world as medicines, cosmetics, drinks, foods, decorations and for a multitude of other purposes. They contribute substantially to rural livelihoods, generate revenue for companies and governments, and have a range of impacts on biodiversity conservation. Despite wide variations in cultural, economic and political conditions, experiences with NTFP law and policy are remarkably similar around the world. Nevertheless, there is little information available to those seeking to develop effective policy frameworks and regulation.

A new policy brief draws from the book *Wild product governance: finding policies that work for non-timber forest products*, to be published in 2010 by Earthscan as part of the People and Plants Series ([www.peopleandplants.org](http://www.peopleandplants.org)). Based on case studies from the Plurinational State of Bolivia, Brazil, Cameroon, Canada, China, Fiji, Finland, India, Mexico, the Philippines, southern Africa, the United States of America and the United Kingdom, the brief addresses a number of key issues aimed at a more sustainable and equitable use of wild forest products. It looks at economic factors, the interface between traditional and scientific knowledge, and relationships between NTFP regulation, land tenure and resource rights, as well as power and equity imbalances. The need to reflect the commercialization and heterogeneity of

**"NTFP policies work best when based on incentives ('carrots') rather than penalties ('sticks')."**

NTFPs, markets and stakeholders in policies and laws, for example, is stressed.

The authors also highlight the need for NTFP regulation to be part of an entire pattern of land uses and regulation. Moreover, given that climate change will probably bring substantial shifts in the geographic distribution of most plant species, climate change mitigation and adaptation strategies and policies ought explicitly to include NTFP harvesting and trade among activities for which supportive actions are required, argue the authors. [Source: Sarah A. Laird, Rebecca McClain and Rachel Wynberg. October 2009. *Laws and policies for sustainable and equitable non-timber forest product use*. United Nations University, Centre for International Forestry Research, People and Plants International, Environmental Evaluation Unit, University of Cape Town, and the Institute for Culture and Ecology.]

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**FOR MORE INFORMATION, PLEASE CONTACT:**  
**Sarah Laird, People and Plants International, Inc.,**  
**PO Box 251, Bristol, VT 05443, United Kingdom.**  
**E-mail: [sarahlaird@aol.com](mailto:sarahlaird@aol.com) or**  
**[peopleandplants@gmail.com](mailto:peopleandplants@gmail.com);**  
**[www.peopleandplants.org](http://www.peopleandplants.org)**



## LOCALIZING PRODUCTS: A SUSTAINABLE APPROACH FOR NATURAL AND CULTURAL DIVERSITY IN THE SOUTH?

A scientific symposium to explore the links between biological and cultural diversity and the processes designed to enhance the value of local specialities in countries in the South took place in Paris, France from 9 to 11 June 2009. Organized by UNESCO/Mab (United Nations Educational, Scientific and Cultural Organization/Man and the Biosphere), IRD (Institute of Research for Development), CIRAD (International Cooperation Centre of Agricultural Research for Development) and MNHN (French National Natural History Museum), in collaboration with the French Foundation for Research on Biodiversity (FRB), FFEM (French Fund for World Environment),

AFD (French Development Agency) and IDDRI (Institut de développement durable et des relations internationales), the event united 175 participants from around the world, including experts from various scientific disciplines, international and national organizations and NGOs. The conference provided an opportunity to exchange knowledge between North and South.

The agenda centred upon three main workshops, with many of the sessions covering NWFPs, e.g. constructing the identity of products (names, images,

typicality, reputation); valuing local products in the frame of conservation politics; valuing local products and the potential impacts on biodiversity; and social and territorial changes linked to the value of local products.

"Every product produced in developing countries, including sorghum, quinoa, coffee, argan oil, red tea and even cheese, has a local and cultural identity. They come from specific ecosystems, parks or protected areas. Does promoting these products help to maintain biodiversity?" asked Martine Antona, a researcher at CIRAD and member of the Conference Organizing Committee. Participants at the conference explored the issue extensively.

Thirty-five studies were presented in the three parallel workshops. One study carried out in the Western Ghats, India, in Kodagu district, a major coffee-growing region, investigated the potential of geographic indications (GIs) in protecting the environment through the protection of cultural and biological diversity. (GIs identify goods as originating in a country, region or locality, where a given quality or characteristic of such goods is essentially attributable to its geographic origin.) Given that the intensification of coffee cultivation has led to a 30 percent loss in forest cover in the region, the paper explores how local producers can successfully use GIs and the conditions needed for them to have a positive impact on biodiversity conservation. Another study explored the challenges and opportunities of biotrade and green markets in the Colombian Amazon region, citing the example of native chilli peppers, a species widely used by indigenous groups in the area.

Bernard Roussel, a lecturer at MNHN and member of the Conference Organizing Committee, says it is necessary to set up structures that would enable players at local level to draw maximum benefit from current globalization patterns, in which cultural factors are playing an ever greater role in economic rationales and the idea of origin is increasingly a guarantee of quality. If sociocultural change is the main cause of agrobiodiversity degradation, argued the authors of a study carried out in the Peruvian Andes, it might also be a fundamental source for its conservation.

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**FOR MORE INFORMATION, PLEASE CONTACT:**

**Emmanuelle Gerard, Maison de l'Unesco, 7 place de Fontenoy, 75007, Paris, France.**

**E-mail: [localiser-les-produits@mnhn.fr](mailto:localiser-les-produits@mnhn.fr);**

**[www.mnhn.fr/colloque/localiserlesproduits/](http://www.mnhn.fr/colloque/localiserlesproduits/index_va.php)**

**[index\\_va.php](http://index_va.php)**



**Crops for the Future**

Crops for the Future is a small international non-profit organization working to promote underutilized crops for the benefit of the poor and the environment. Its focus is the collection, synthesis and provision of information and knowledge about neglected and underutilized plant species and their current and potential roles in people's livelihoods and the environment.

Crops for the Future evolved from the International Centre for Underutilised Crops (ICUC) and the Global Facilitation Unit for Underutilized Species (GFU) and is hosted by Bioversity International ([www.bioversityinternational.org](http://www.bioversityinternational.org)) at its Asia, Pacific and Oceania Regional Office in Serdang, Malaysia in a joint venture with the University of Nottingham Malaysia Campus ([www.nottingham.edu.my](http://www.nottingham.edu.my)).

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**FOR MORE INFORMATION, PLEASE CONTACT:**

**Paul Bordoni, c/o Bioversity International, Via dei Tre Denari 472a, 00057 Maccarese (Rome), Italy. E-mail: [p.bordoni@cgiar.org](mailto:p.bordoni@cgiar.org); [www.cropsforthefuture.org](http://www.cropsforthefuture.org)**

**Food Plants International**

Food Plants International is a small non-profit organization seeking to document all the edible plants of the world. Currently its database has over 19 500 edible plant species. They are all being written up in plain English to make the information accessible to those for whom English is not their primary language and who are not scientifically trained. The aim is to "Help the Hungry Feed Themselves".

A Web version containing some of the information is available at [www.foodplantsinternational.com/](http://www.foodplantsinternational.com/). A series of publications for Papua New Guinea are available to download free. An additional series is being compiled for the Solomon Islands in association with Rotary International and further information is available on their [LearnGrow.org](http://LearnGrow.org) Web site.

For those genuinely involved in assisting the rural poor in tropical locations, a more comprehensive DVD version can be provided. Unfortunately, as our



**PROTÉGER LA FORÊT ET SES TRADITIONS GRÂCE À LA CERTIFICATION COMMERCIALE? UNE ÉTUDE SUR L'AMAZONIE BRÉSILIENNE**

*Cette étude a été présentée au colloque international «Localiser les produits: une voie durable au service de la diversité naturelle et culturelle des Suds?» (9–11 juin 2009, UNESCO, Paris).*

Comment la valorisation de certaines espèces typiques d'Amazonie brésilienne peut permettre en même temps la préservation de la sociodiversité? A partir de l'exemple de trois communautés insérées dans des aires protégées de cette région et des instruments de valorisation mis en place en parallèle (certification officielle ou spontanée, indication géographique, etc.), les auteurs cherchent à voir quelles sont les avancées obtenues dans ces domaines. Si l'écocertification assure le maintien de la forêt dans son intégrité, elle perturbe la transmission des savoirs traditionnels en interdisant le travail infantile. Pour les indications géographiques et autres labels plus ou moins officieux, la dimension environnementale demeure dépendante du bon vouloir des populations, lesquelles auront tendance à privilégier l'aspect social (reconnaissance identitaire ou politique) ou économique (plus-value), au détriment de la préservation de la biodiversité sauvage ou domestique.

(Source: Anna Greissing, Guillaume Marchand et Stephanie Nasuti.

Communication: «Protéger la forêt et ses traditions grâce à la certification commerciale? Trois exemples en aires protégées d'Amazonie brésilienne».)

organization is almost a one-person activity working on a voluntary basis and assisted by volunteers, and is basically unfunded, it is not possible to engage in extensive e-mail communication, nor meet too many requests.

There remain a large number of poorly documented and overlooked food plants already adapted to local conditions, and therefore giving more stable and sustainable production; many of these are in tropical countries where undernutrition is a major concern. Often these plants have significantly greater nutritional value than more commonly promoted species from more temperate countries. The long-term aim is to empower people to make good choices about what food plants they grow and use.

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**FOR MORE INFORMATION, PLEASE CONTACT:**  
**Bruce R. French, Director, Food Plants International, 38 West St, Burnie, Tasmania 7320, Australia. E-mail: [bfrench@vision.net.au](mailto:bfrench@vision.net.au); [www.foodplantsinternational.com](http://www.foodplantsinternational.com)**



#### Resources Himalaya

Resources Himalaya is a non-governmental, non-profit organization. We began in 1986 as a private registered research organization because the law at that time forbade the non-governmental movement. By 2004, our collaborative work had reached Bhutan, India and Nepal, which prompted us to establish it as a regional think-tank in the Himalayas. In the last 20 years, our partners have widened our collaborative horizon into agriculture, biodiversity, protected areas and wildlife conservation, forest ecology, community forestry, nature tourism,

mentorship, ethnography and social studies. We have garnered regional experience through our collaborative works of over several hundred research projects in Bhutan, India and Nepal.

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**FOR MORE INFORMATION, PLEASE CONTACT:**  
**Resources Himalaya. GPO Box 2448, Kathmandu, Nepal. E-mail: [team@resourcehimalaya.org](mailto:team@resourcehimalaya.org); [www.resourcehimalaya.org/index.php](http://www.resourcehimalaya.org/index.php)**



#### PROCESSING AND MARKETING OF NWFPs: POTENTIAL IMPACTS AND CHALLENGES IN AFRICA

A recent paper provides an overview and synthesis of the processing and marketing of NWFPs in Africa. Indeed, NWFPs provide a livelihood support system for forest communities and poor urban households in terms of food, medicines, income and employment. However, forest communities remain poor, always struggling to make a living rather than improving their status quo. This trend raises concern as to whether NWFPs constitute a poverty trap, a safety net or a resource for rural development and poverty alleviation. The authors try to address some of these concerns with the main objective of drawing lessons from experiences across the African continent on the opportunities and challenges of the NWFP sector. Such lessons are considered very important in informing the development of policies in future that can better contribute and sustain the provision of income and livelihood to stakeholders. Lessons drawn from this analysis show that organized production, processing and marketing of NWFPs can increase the revenue of dependent communities, thereby contributing to poverty reduction in Africa.

The authors conclude that the salient requirements for the development of NWFPs include adding value locally; choosing the right marketing strategy; informing local producers and organizations on legal procedures; supporting and building capacities of vibrant/accountable local organizations; conducting cost-effective research and development; and disseminating appropriate information on the resource base and on market conditions. (Source: Tieguhong Julius Chupezi,

Ousseynou Ndoye, Mathurin Tchatat and Ben Chikamai. 2009. Processing and marketing of non-wood forest products: potential impacts and challenges in Africa. (abstract.) In *Discov. Innov.*, 21 [SFM Special Edition No. 1].

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**FOR MORE INFORMATION, PLEASE CONTACT:**  
**Tieguhong Julius Chupezi, Forestry Programme, Faculty of Science and Agriculture, University of Kwazulu-Natal, P. Bag X01, Scottsville 3209, South Africa. E-mail: [chupezi@yahoo.co.uk](mailto:chupezi@yahoo.co.uk) or [204523366@ukzn.ac.za](mailto:204523366@ukzn.ac.za)**



#### PROTECTING FORESTS TO PRESERVE THE MEDICAL KNOWLEDGE OF RAIN FOREST SHAMANS

Deep in the rain forests of Suriname, indigenous shamans of the Trio tribe possess a healing prowess unappreciated by Western medicine, says a recent study published in the *Journal of Ethnobiology and Ethnomedicine*. Lead author Christopher Herndon, a physician at the University of California, San Francisco, says: "Our paper contests a prevailing view in the medical establishment that we, as scientists, have nothing left to learn from so-called 'primitive' societies". The research, based on data from more than 20 000 patient visits to traditional clinics over a four-year period, finds that shamans in the Trio tribe have a complex understanding of disease concepts, comparable with Western medical science. These indigenous shamans recognize some 75 distinct disease conditions – from common ailments such as fever (*kéike*) to rare medical conditions such as Bell's palsy (*ehpijanejan*). They can distinguish between endemic and newly introduced illnesses.

Shamanism is a product of accumulated knowledge from past generations, combined with deep spiritual and physical ties to the natural environment. The knowledge and treatments of shamans are products of their own scientific method, accumulated from a progressive cycle of trial, experiment and observation repeated over countless generations. In many ways, shamanism is fundamentally based on the very same empirical and pragmatic principles as Western science.

The destruction of forests, however, is threatening the valuable knowledge of



indigenous Shamans. Written inventories of Trio medical knowledge alone will not suffice to "save" these medical practices. Trio ethnomedicine is a complex art of diagnosis, examination, communication, ritual and treatment. It can only be transmitted through active practice, says Herndon. It is in part thanks to pioneering efforts by the Amazon Conservation Team (ACT) – a "biocultural" conservation group – that this knowledge is not disappearing altogether. ACT has established a system of traditional health clinics to improve health care and promote medicinal plant knowledge from healers to younger members of the tribe.

"Our 'Western' medical system is itself but a compendium of knowledge, wisdom and therapeutics accumulated from past cultures and societies from around the world," says Herndon. "We should be justifiably proud of the accomplishments of medical science, but at the same time not lose the perspective that these advancements, in many cases, emerged only in the past half century. My point is that we should not be so quick to sever the umbilical cord of our medical system from the womb of the last remaining cultures that helped gave it birth. We do so at our great loss." [Source: extracted from: "How rainforest shamans treat disease" in *Amazon News*, 12, November 2009.]

## PROTEIN BUSTER FROM COMMON TREE

The rooster tree (*Calotropis procera*) – a tree common across the Indian subcontinent – can yield an enzyme protease (purified from its latex) that has a variety of uses in the food, detergent and pharmaceutical industries. The tree's enzyme is active under temperatures and acidity conditions that make other proteases inactive and is especially good at removing blood stains, the researchers note in their article "Purification of a novel cysteine protease, procerain B, from *Calotropis procera* with distinct characteristics compared to procerain". [Source: SciDev.Net Weekly Update, 9–15 November 2009.]

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**FOR MORE INFORMATION, PLEASE CONTACT CORRESPONDING AUTHOR: Abhay Narain Singh, Department of Biotechnology, Indian Institute of Technology Guwahati, Guwahati 781039, Assam, India. Fax: +91 361 2582249.**

## TREE PLANTING WORLD RECORD

Pakistan has set the Guinness World Record for tree planting, beating India in a healthy and productive international competition contributing to preserving fragile and endangered forests. With 541 176 young mangrove trees planted by 300 volunteers from the local fisherfolk communities in just one day, the country broke the previous 447 874 record held by India. [Source: WWF, 16 July 2009.]

## USING MODERN TOOLS TO PROTECT BIODIVERSITY

### Indigenous peoples protect the rain forest with hi-tech tools

Illegal logging is a threat to the rain forests of Peru. But the indigenous communities are using both ancient knowledge and modern technology to protect biodiversity and stop further destruction.

The lush green of the rain forest offers rich natural resources which the Ashaninka Indians have lived on for centuries. At the Yoreka Atame school of primeval forestry in Brazil, young indigenous and non-indigenous people have been learning how to make use of them in a sustainable way. Since 2007, the school has taught skills to more than 2 000 participants, such as cultivating fruit trees, keeping bees and erecting dams in creeks and lakes to enhance spawning grounds for fish.

"That's how we Ashaninka Indians here in the border region between Brazil and Peru want to pass on our traditional knowledge," said Moises Piyako. He cofounded the Yoreka Atame school together with his brother Benki in 2007.

To prevent illegal loggers from wreaking further havoc on Brazilian territory, Benki and Moises Piyako demand a worldwide ban on imports of wood illegally felled in rain forests. "There are only a few specimens left of many of the tree species, and we are trying to recultivate these economic plants," they said, adding that there is a lack of understanding about the importance of managing sustainable resources. "We must make sure that our natural resources are not destroyed in the struggle for survival."

In their fight for environmental protection, the Ashaninka combine traditional knowledge and modern technology. Some remote communities have already set up satellite-supported communication systems in the rain forest.

In addition, Benki Piyako and his village of Apiwtxa have set up a video blog on life in the rain forest (<http://apiwtxa.blogspot.com>). There, they also post satellite photos that document how illegal logging is devastating huge areas. It is their aim to teach people how the forest and its resources can be used without destroying them. And they also want to set up a global network supporting the protection of their region. [Source: DW-World.de, 10 August 2009.]



### Indigenous tribe teams with Google to make a stand in the Amazon

The chief of an endangered Amazon tribe will unveil today the product of an unusual partnership with Google Inc. that pairs high tech with indigenous knowledge in an effort to rescue ancient rain forests and a dying culture.

Almir Surui, speaking at the 20th Annual Bioneers Conference in San Rafael, plans to showcase Google Earth images, years in the making, that throw into sharp relief the rapid encroachment of illegal mining and logging on to his people's 600 000-acre (approximately 242 811-ha) reserve. The data-rich maps include layers of videos, pictures, text and historical markers gathered by tribe members. They promise to underscore the importance of the land and propel the Surui people's efforts to become self-sufficient.

"Right now, under current development models, a standing forest is always worth less than its extractable parts," Chief Almir, 35, a stocky man with a bulldog

head crowned by a feathered Amazon headdress, said through an interpreter.

"Forests are very important for the welfare of the indigenous people and for the world," he said. "We want to show concretely, practically that you can have quality of life and economic development, with an intact forest." The Google Earth updates will become viewable later this week.

The 1 300-member Surui tribe was 5 000 strong in the late 1960s, when it first came into contact with outsiders as construction began on the BR-364 highway through nearby Cacoal, Brazil, about 125 miles (approximately 201.2 km) from the northwest border of Bolivia. The ensuing decades brought disease, crushing poverty and continual clashes with plunderers. The Brazilian Constitution grants indigenous tribes the right to their traditional lands, but the Government has not backed the policy with the necessary resources to halt the incursions, environmental groups allege.

Eleven chiefs of Surui and neighbouring tribes have been shot and killed this decade, deaths that members attribute to loggers and miners and see as clear warnings for others who would obstruct their efforts. Almir, an outspoken activist for nearly two decades and the first member of his tribe to graduate from college, has been cautioned that there is a US\$100 000 bounty on his head.

The Amazon Conservation Team of Arlington, Virginia (United States of America), which funded and provided technical equipment for the mapping project, evacuated Almir to the United States for his safety in 2006. The following year, they took him to Silicon Valley to appeal directly to Google for help. The company agreed to provide high-resolution satellite images of the region and train the Surui people to survey their lands and document their culture, using tools such as Google Earth, Google maps, Blogger and YouTube.

The tribe adopted Amazon Conservation Team's methodology for so-called ethnographic mapping, which has been used to chart more than 40 million acres (approximately 16 187 426 ha) of rain forest. Members interviewed their elders, photographed their territory, and plotted out more than 2 000 important sites using GPS (global positioning system) tools, including ceremonial lands, hunting grounds, fishing spots and stands of the

three tree types necessary to make their arrows.

"It shows how they use the land, their history on the land, the stories related to each point and also the spiritual side," said Vasco van Roosmalen, Brazil director for the Amazon Conservation Team.

All the data have been embedded into the Google Earth images that Chief Almir will unveil today, and will continue to be updated in the years ahead. The overarching hope is that stark pictures of deforestation's devastation will grab the world's attention and enlist new allies in the Surui's struggles. (*Source: San Francisco Gate, 18 October 2009.*)

#### Protecting forests with barcodes

Deep in the world's tropical rain forests, workers are hammering thousands of barcodes into hardwood trees to help in the fight against illegal logging, corruption and global warming.

The plastic tags, like those on supermarket groceries, have been nailed to a million trees across Africa, Southeast Asia and South America to help countries keep track of timber reserves.

Helveta, the British company behind the technology, says the barcodes will help firms comply with tough laws on importing sustainable timber into the United States of America and Europe. They could also play a role in fighting deforestation, which accounts for about a fifth of global emissions of planet-warming carbon dioxide. The issue will feature in global climate talks in Copenhagen in December.

The company, which has just secured another £3 million (US\$4.88 million) in funding from investors, has put barcodes on trees across the world, including in the Plurinational State of Bolivia, Ghana, Indonesia, Liberia, Malaysia and Peru.

The computerized system is less prone to fraud than traditional paper records, carries live data and can help governments to collect more timber taxes, Helveta said. While the barcodes cannot prevent criminals from chopping down trees, the system makes it hard for them to process, sell or export the wood. (*Source: Reuters, 10 July 2009.*)

#### Rare gorillas make Facebook debut

Uganda is preparing to make Internet stars of its endangered mountain gorillas. Officials are launching a "Friend a Gorilla" Web site to allow readers – for a US\$1 fee – to become friends with the animals on the

Facebook site. It is not clear how often the gorillas will update their status.

There are only about 700 of the gorillas left in Africa. They are found on the slopes of the Virunga Mountains on the borders of Rwanda, Uganda and the Democratic Republic of the Congo, where several animals have been killed by armed fighters.

Lillian Nsubuga, of the Uganda Wildlife Authority, told the BBC's Focus on Africa programme she hoped the initiative would raise money for the gorillas and promote Uganda as a tourist destination. "Anybody with an account on Facebook will be able to click on this microsite and get into our Web site," she said. "When they get there, they will find descriptions and faces and all types of photos of the gorillas in Bwindi National Park."

She says readers will be able to work out which particular animal they are fond of.

"If you like him and you choose him, then you pay US\$1 and his face will appear on your Facebook page – then in addition to human friends you will have gorilla friends." (*Source: BBC News, 24 September 2009.*) ♣



**Don't ever take a fence down until you know why it was put up.**

*Robert Frost*