

"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)

species of bromeliad. In the Atlantic Forest, a diverse stretch of Brazil's wooded coastline that forms a natural habitat for many bromeliads, the devastation is acute – only 7 percent of the original forest survives. [Source: *Amazon News*, 14 August 2008.]



A QUESTIONABLE ROLE: NTFP COLLECTION IN SUSTAINABLE DEVELOPMENT

Collection of NTFPs has been promoted in India as a strategy to aid wildlife conservation while simultaneously alleviating poverty and recent legislation now gives communities living within protected areas the legal right to collect NTFPs. However, research on the financial rewards from NTFP collection and its contribution to sustainable development is equivocal.

In a case study in the Periyar Tiger Reserve, India, the question of whether NTFP collection can solve livelihood problems by analysing revenues obtained from various NTFP species was examined. The economic returns to collectors from various social backgrounds were estimated and the attitudes of collectors towards their profession were explored.

It was found that black damar resin from the tree *Canarium strictum* (61.3 percent) and mace from *Myristica* spp. (35.5 percent) were the most commonly collected NTFPs. The most valuable NTFPs were honey from *Apis cerana indica* (US\$4.12/kg), *Cardamom elettaria cardamomum* (US\$3.67/kg) and *Myristica* spp. (US\$2.77/kg). Mean daily revenue from NTFP collection was US\$3.15 ± 4.19/day. The lowest daily revenues were earned by part-time collectors with low socio-economic status, such as migrants, forest dwellers or those without access to agricultural land.

Most collectors (82 percent) did not wish to continue harvesting NTFPs if alternative livelihoods from agriculture could be provided and none wanted their children to be NTFP collectors.

The findings suggest that, with respect to social justice, poverty alleviation and environmental sustainability, the role of NTFP collection in sustainable development is questionable. [Source: abstract from S. Gubbi and D.C. MacMillan. 2008. Can non-timber forest

products solve livelihood problems? A case study from Periyar Tiger Reserve, India. In *Oryx*, 42: 222–228. Cambridge, United Kingdom, Cambridge University Press.]

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BIODIVERSITY CONSERVATION THROUGH A COMMUNITY- BASED ENTERPRISE APPROACH

Plans to control access to the Amazon
ANSAB (Asia Network for Sustainable Agriculture and Bioresources) has been chosen, with two other finalists, for the Most Innovative Development Project (MIDP) award through a global competition organized by the Global Development Network (GDN) in 2008. After a rigorous evaluation, ANSAB's "Biodiversity Conservation through a Community-based Enterprise Approach" surpassed proposals from around the world.

This new enterprise approach aims to improve the resource management skills of local communities, integrate villagers' subsistence and commercial needs with biodiversity conservation, assess policy reforms, pilot forest management certification and implement economic interventions through value chain analysis in rural areas of Nepal. [Source: ANSAB press release: www.ansab.org/press_release.php?id=46]



A BRAZILIAN'S SHRINE TO BROMELIADS MAY ONE DAY SAVE THE PLANTS

Teresópolis, Brazil. Elton Leme's garden is a living shrine to bromeliads. There are plants in the soil, plants peeping from between rocks, plants hanging from the roof of Mr Leme's home-built greenhouse. There are even plants planted on plants.

Leme has discovered more than 300 species of bromeliad, the largest family of flowering plants endemic to the western hemisphere – including pineapple. He has even identified new species in books, erroneously labelled as existing ones. No man alive has discovered as many.

With flora disappearing at an increasing rate, Leme is rushing to find and catalogue as many new species as possible in order to share them with botanists all over the world as an insurance policy against future destruction.

From the 2 000-odd plants he has gathered during his 35-year career, Leme has already given duplicate flowers to research institutes and botanical gardens and he aims to grow more so his legacy will outlive him. "Today we don't just talk about extinction of species but of ecosystems," he says. "It's a race against time to discover species before they are lost forever."

That hunger to find new species is becoming increasingly important, given the environmental destruction in Brazil, a continent-sized nation that is home to an estimated 2 000 of the world's 3 000 known



BIOPROSPECTING/ BENEFIT-SHARING OR BIOPIRACY?

Laws to protect native knowledge "are failing"

Global moves to improve the rights of indigenous communities over their local knowledge have largely failed, say experts. This has resulted in intellectual property rights (IPRs) claims by indigenous people dropping to "barely a trickle", according to the Montreal-based International Expert Group on Biotechnology in their report launched on 13 November.

In Brazil, for example, only seven phytotherapeutic items have been developed with local resources compared with 700 patents on similar items filed almost entirely by foreigners worldwide.

The authors say attempts to ensure benefit-sharing with numerous indigenous communities have been hindered by an overemphasis on the ownership of IPRs, which has proved to be a roadblock to progress.

They highlight Brazil's case, where legislation was passed in 2001 with the aim of protecting indigenous rights. "Use of traditional knowledge and local, natural products depends on the consent of several indigenous groups that – theoretically or actually – 'own' them, and these groups do not always agree on these questions," says Edson Beas Rodrigues, coauthor of the report and a researcher at the Institute of Law on International Trade and Development, Brazil. "Research institutes and industries cannot access the knowledge and indigenous groups do not benefit from any research that could have been done."

"We try to protect indigenous rights so hard that our laws are in fact preventing the use of traditional knowledge," said Rodrigues. "We have to find a balance between assuring intellectual property and promoting access to traditional knowledge."

The report also considers case studies from Kenya and northern Canada.

"Most striking is that no matter where we looked, the lack of trust played a vital role in blocking negotiations that could have benefited both sides, as well as the larger public," says Richard Gold, chair of the group from McGill University, Canada. (Source: SciDev.Net, 29 November 2008.)

Bioprospecting plant genetic resources in Qatar

A study – *Bioprospecting plant genetic resources in Qatar* – will "bioprospect" Qatar's indigenous plant and fungal biodiversity to explore the potential of its plant genetic resources (PGRs) to address two contemporary issues facing Qatar, namely:

- the increase in incidence of "diseases of affluence" and
- the desertification of Qatar's arid lands.

This research will assemble the results of the latest studies in disparate fields, such as pharmacognosy, epidemiology, microbiology, ethnology and restoration ecology, to yield a document that identifies and evaluates top PGR candidates that could contribute to the improvement of Qatar's public and ecosystem health. In addition, a presentation and extension education booklet will be produced to apprise relevant stakeholders of PGR-related opportunities.

Plant species involved include: *Aizoon* spp., *Anastatica hierochuntica*, *Terfezia claveryi*, *Tirmania nivalis* and *Ziziphus* spp. (Source: update of the month from the Global Facilitation Unit [GFU], July 2008.)

Bugs lead drug hunters to medicinal treasure

If you are looking for medicinal plants in the jungle, let the insects guide you. A study has shown for the first time that brightly coloured bugs like to sit on medicinally active plants.

Todd Capson, an entomologist at the Smithsonian Tropical Research Institute in Panama, hopes the findings will accelerate drug discovery efforts and improve measures to safeguard rain forests.

A popular way of finding new drugs based on natural compounds is to study the plants used in traditional medicines. Capson and his colleagues thought that there might be a way of accelerating the search, by also looking for plants that seem to be valued by non-human species.

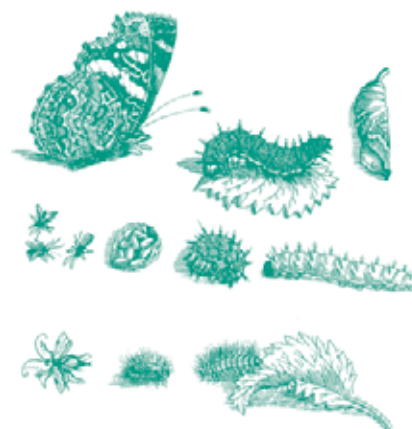
Many tropical insects carry toxins to protect themselves from predators. In fact, in the early days of drug discovery, researchers tried collecting insects in order to extract their active compounds. "Good luck collecting 100 kg of insects," says Capson. However, the insects often do not synthesize toxins themselves. Instead, many eat toxic plants and concentrate the poisons. As a result, the search for new drugs inspired by natural compounds now focuses on plants rather than insects.

Bioprospectors searching for medicinally active plants in a rain forest face a problem of needle in the haystack proportions. Plants do not advertise the fact that they contain potential medicines. The insects that feed on them, on the other hand, do. Insects ingest bioactive chemicals from the plants and advertise the fact that this makes them poisonous to predators with flashy colours.

Capson's team decided to test their theory in the forests of Panama. They chose ten plants that they knew contained medicinal compounds, and ten non-medicinal plants that looked very similar to them. In four national parks, they searched for the plants in their natural environment and recorded the number of bright insects on their leaves.

The team regularly found brightly coloured bugs on nine of the ten active plants, but on just four of the ten inactive plants. On average, each poisonous plant had 1.9 bright bugs on its leaves, while innocuous plants had just 0.5.

Using brightly coloured insects as flags does not mean that every plant collected by scientists contain a new medicine. Once a potentially medicinal plant has been identified, it can take years to extract the active compound and turn it into a useful drug. Nevertheless, it could focus pharmaceutical searches.



"One could go into the field and scan wild insect populations," says team member Julie Helson of the University of Toronto Scarborough, Ontario, Canada. "This would still be labour-intensive, but would hopefully increase your hit rate in comparison to randomly collecting plants."

For Capson, there is another advantage to the method – that of saving the insect sentinels from extinction.

Capson himself is not planning on testing his method further by collecting unknown plants that have bright bugs on them and testing their toxicity. That, he says, is what he hopes his colleagues who are searching for new drugs will do. The baton is ready to be passed. [Journal reference: *Frontiers in Ecology and the Environment*, DOI: 10.1890/070189.] [Source: *New Scientist* [United Kingdom], 12 August 2008.]

World's first biodiversity law centre in Malaysia

Malaysia on Wednesday opened the world's first centre for legal advice on biodiversity development and marketing, for both government and international institutions.

Increasing the country's capacity on the legal aspects of biosecurity and biotechnology are among the main objectives of the Centre of Excellence for Biodiversity Law (CEBLAW), based at the University of Malaya.

Natural Resources and Environment Minister Douglas Uggah Embas said the centre will also give the Government legal advice on issues included in international environmental agreements and the World Trade Organization, among others.

CEBLAW emerged from a joint initiative by the Natural Resources and Environment Ministry and the University of Malaya to support the Executive in legal affairs benefiting exchange, traditional thinking and copyrighting, the official explained. [Source: *Prensa Latina* [Cuba], 24 September 2008.]

COSMETIC GIANTS RUN INTO A HIMALAYAN CHALLENGE

Ahmedabad. A dozen women are busy plucking sea buckthorn berries in Leh-Ladakh and Kargil to supply them to their local Nundum Cooperative Society (NCS). The society will further their produce to the All-India Aromatic Plants Growers Association (AIAPGA).

By supplying such special fruits with medicinal values, these women will earn

Rs85–90/kg, more than 50 percent higher than before, according to Mohammed Zaffar, President of NCS, which has 40 members. In addition, the hill people of India are coming together to take on foreign Fast Moving Consumer Goods (FMCG) big companies, such as Amway, K-Link, DXN and Tenzxi – that have been dominating the Indian cosmetics market – by launching a large number of herbal cosmetic products.

The 6 000-member-strong AIAPGA will launch herbal products under its common brand across the country by next week through self-marketing. And it is confident of outdoing the foreign competition. "Our prices are quite nominal than these biggies and our products are high in quality," says the AIAPGA President and Kangra Herb Society Director Randhir Singh Guleria.



A large number of growers come from regions such as Leh, Kargil, Himachal Pradesh, Uttarakhand and areas covered under the Himalayan range. They are expected to obtain more than 40 percent margins on their produce once the mechanism falls into place. AIAPGA has received patent approval for launching 35 products initially, and a few more will join after approval. What is more, the Rs300 crore industry is confident of touching the Rs1 000 crore mark in the next five years with their inhouse business model.

From planting to packaging, branding and marketing of the final product, AIAPGA has strategically built an inhouse model for its members that, it claims, will be more cost effective than the one followed by the large foreign companies. Interestingly, the growers will get returns as per their subscription period with AIAPGA. That means the longer the period, the higher the margins. "Our 40 ha land was a complete wastage as we didn't know how to utilize it. Now, we have decided to supply medicinal plants for two years," says Dharamshala-based grower Manish Mahajan. [Source: *Economic Times* [India], 1 August 2008.]

CROPS FOR THE FUTURE – A NEW INTERNATIONAL ORGANIZATION

A new international organization dedicated to neglected and underutilized crops was to be announced on Sunday, 30 November 2008, at the Annual General Meeting of the Consultative Group on International Agricultural Research in Maputo, Mozambique.

"Crops for the Future" has evolved from a union of the International Centre for Underutilised Crops (ICUC) and the Global Facilitation Unit (GFU) for Underutilized Species. It will be hosted in Malaysia by Bioversity International in a joint venture with the University of Nottingham, Malaysia Campus.

Over half of humanity's food comes from only three crops – rice, wheat and maize. Thousands of others are also important, but overlooked, as sources of nutrition, food, animal feed, medicines and other resources. Hannah Jaenicke, Interim Global Coordinator of Crops for the Future, said: "In times of changing climates, and economic and social upheavals, it is essential that we promote diversity. These underutilized or orphan crops are vital to support poor peoples' coping strategies and to encourage sustainability."

Crops for the Future will support, collect, synthesize and promote knowledge on neglected and underutilized species for the benefit of the poor and the environment. It will do so by complementing and strengthening the efforts of other players active in international agricultural research and development.

The new organization is expected to start operating early in 2009. [Source: *Innovations Report*, 1 December 2008.]

ECOFRIENDLY PRESERVATIVE: LANTANA – AN OBNOXIOUS WEED WITH A USEFUL PURPOSE

Lantana camara Linn. A member of the Verbinacea family, lantana is found in abundance in India, in Deccan, Nilgiris, Uttar Pradesh, the Shivalik range, the Western Ghats, Bihar, Chhotanagpur and the northeastern regions. It seems to have overrun some areas such as most of the state capital of Uttranchal, Dehra Dun.

Introduced in India as a hedge by the British in 1941, today the plant has taken



Lantana camara

over almost 1 lakh ha of land. Considered to be among the ten "worst" weeds in the world, once it is established it becomes almost impossible to eradicate, even with the help of machines. Lantana may be manually removed but regenerates again very easily. It survives in all weather conditions. The toxic effects of the plant also prevent the growth of other plants through the process of allelopathy.

Efforts are now under way to utilize this weed for various purposes because of its abundance and accessibility. Recent studies reveal that it can be used for wood protection of non-durable timbers. The Forest Research Institute in Dehra Dun reported that the whole plant of *Lantana camara*, when extracted in ethanol, exhibited highly protective properties for non-durable timber even at very low levels of concentration (i.e. 0.01 percent). No protection could be achieved when water was used to extract the plant material; rather, a promotory effect on the growth of fungus was observed. The properties achieved by ethanol extract are attributed to the presence of phenolics, alkaloids and appreciable amounts of terpenoids.

This use of the invasive weed may be tapped for the development of ecofriendly preservatives for wood and non-wood products such as bamboo. (Contributed by: Dr Sadhna Tripathi, Scientist, Wood Preservation, Forest Products Division, Forest Research Institute, Dehra Dun, India. E-mail: tripathis@icfre.org or tripathiak04@yahoo.co.in)



EL MANEJO DE PRODUCTOS FORESTALES NO MADEREROS EN AMAZONÍA

Considerando su importancia y la presión sufrida, la Amazonía necesita modelos de desarrollo con actividades económicas que no comporten la deforestación exagerada. En ese contexto, el manejo de productos forestales no madereros (PFNM) merece especial atención, ya que si es conducido de manera sostenible puede, al mismo tiempo, convertir en rentables los bosques y mantener su estructura y biodiversidad prácticamente inalteradas.

Los PFNM son productos provenientes de los bosques que no son madera, como por ejemplo hojas, frutos, flores, semillas, nueces, palmitos, raíces y bulbos, ramas, cáscaras, fibras, aceites esenciales, aceites fijos, resinas, lianas, hierbas, bambú, plantas ornamentales, hongos y productos de origen animal. Pensando en la importancia de esos productos, se observa que son cruciales para la subsistencia de muchas personas en el mundo, especialmente para las que viven en los bosques o en sus cercanías. Los PFNM se utilizan para la alimentación, producción de medicamentos, usos cosméticos, construcción de viviendas, tecnologías tradicionales, producción de utensilios y otros usos. De acuerdo a estimaciones de la FAO aproximadamente el 80 por ciento de la población de los países en desarrollo utilizan los PFNM para suplir algunas de sus necesidades de vida.

A pesar del gran potencial de la foresta Amazónica para el manejo de PFNM, son aún escasas las informaciones que suministran bases para la conducción de trabajos sostenibles junto a las comunidades. Generalmente, se considera que las comunidades que participan en iniciativas de manejo de los PFNM suelen tener más conocimientos sobre los recursos que los técnicos que acompañan los trabajos. Se evalúa que todavía no existe un camino o conjunto de actividades que indiquen cómo realizar de manera adecuada el manejo comunitario de los PFNM.

Un reciente trabajo (*Manejo comunitario de productos forestales no maderables: un manual con sugerencias para el manejo participativo en comunidades de Amazonía*) trata la cuestión a partir de una óptica holística, y propone la división del trabajo en distintas etapas. Se sugieren para ello

tres etapas: la previa a la recolección, la recolección y la posterior a la recolección.

En la fase previa a la recolección se evalúa como adecuado el establecimiento de un orden de actividades que deben pasar por: i) inserción de la comunidad en el trabajo, incluyendo discusiones sobre el interés comunitario, cuestiones de propiedad de la tierra, diagnósticos del mercado consumidor y definición de grupos de trabajo; ii) ordenamiento y planificación de actividades a partir de un cronograma de trabajo comunitario; iii) conformación de un conjunto de instituciones colaboradoras; iv) realización de capacitaciones; v) formulación de un sistema de gestión del manejo en la comunidad; vi) estudio del potencial productivo forestal, a partir de informaciones tradicionales y de levantamientos técnicos; vii) mapeo del área de colecta y de los individuos productivos y viii) legalización de la actividad de acuerdo a los marcos legales estatales y nacionales.

La siguiente fase, la recolección, debe también ser dividida en distintos momentos y actividades, siendo: i) establecimiento de principios de conservación de los recursos naturales aprovechados; ii) definición de los procedimientos de colecta, involucrando la seguridad de las personas, la selección adecuada de material colectado y la adopción de prácticas de máxima productividad sostenible; iii) definición de equipamientos y materiales de colecta; iv) evaluación de la producción anual; v) establecimiento de ciclos/períodos de extracción; vi) definición de procedimientos de control de la colecta y vii) adopción de medidas mitigadoras de impactos.

La última fase, la posterior a la recolección debe considerar aspectos relacionados con: i) beneficios de la producción; ii) métodos de transporte; iii) maneras de almacenaje; iv) prácticas de



monitoreo participativo del manejo, uso de herramientas para el monitoreo ambiental, sociocultural y económico y v) definición de estrategias de comercialización, con la elección de los productos para ser comercializados, cálculo de los costos de producción, precio de venta y definiciones de las formas de inserción del producto comunitario en el mercado y la organización de los procedimientos de comercialización.

Por último, un trabajo que considere las etapas expuestas tiene mayores posibilidades de alcanzar resultados positivos en el manejo de los PFNM, aunque no trate cuestiones o procedimientos definitivos, siendo el manejo una ciencia para ser descubierta y redescubierta a partir de la interacción armónica entre conocimientos tradicionales, la biología y la ecología de las especies, y la investigación científica de casos particulares.

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GLOBAL FOREST PLAN COULD BOOST FIGHT AGAINST POVERTY AND CLIMATE CHANGE

An emerging initiative could pave the way for fundamental change in forest management, boosting efforts to fight both poverty and climate change, says new research by the International Institute for Environment and Development (IIED). The World Bank-nurtured idea is a global forest partnership linking local and global processes and promoting decision-making on the international stage to reflect the view and needs of local stakeholders, including forest dwellers. The study's authors warn that the World Bank will have to heed the advice of the hundreds of experts they consulted if it is to make a real breakthrough in tackling the weaknesses of past international forest programmes.

IIED consulted widely on the Bank's idea. More than 600 forest experts responded to IIED's survey or participated in focus groups in Brazil, China, Ghana, Guyana, India, the Russian Federation and Mozambique, as well as at international meetings.

A majority agreed a new partnership was needed to protect forests and forest-based livelihoods, but pointed out ways it should diverge from the Bank's initial idea if it really is to serve local needs on an equitable basis within the rapidly changing global forestry agenda. IIED also reviewed more than 50 existing initiatives to identify the proposed alliance's potential partners and the gaps it could fill.

Key features to make a global partnership truly progressive for international forestry include a focus on empowering primary "stakeholders" such as forest dwellers so that their rights, knowledge and needs are centre-stage. The partnership should improve flows of finance to activities that support local needs alongside global public goods such as carbon storage. It should interact effectively with other sectors such as water and agriculture, where the underlying causes of forest problems – and the seeds of sustainable solutions – are often lodged.

"Without these building blocks, the ambitious partnership idea is unlikely to succeed," says IIED's Steve Bass. "This is a new opportunity to develop an empowering, stakeholder-focused partnership that can attract real investment to manage forests sustainably. It has potential to harness an enormous groundswell of energy to manage forests. Right now, Western governments are planning large climate and forest funds – the partnership could identify the best ways to invest those funds for long-term good."

The report urges the formation of a "development group" of forest, environment and development leaders mainly from the south alongside governments, civil society and the private sector, to develop the initiative cooperatively with support from progressive international institutions.

Welcoming the report, the World Bank's Forest Advisor, Gerhard Dieterle said: "We have listened to the advice of the hundreds of people consulted and will be following IIED's recommendation that the World Bank support an independent process of a global partnership growing from the 'bottom up'. We are convinced that this is a lasting way to have forests contribute to economic growth, to the livelihoods of forest-dependent people and poverty reduction as a whole, as well as preserving the global services forests deliver." (Source: IIED press release, 9 July 2008.)



"GREEN" JEWELLERY

Ecofriendly jewellery made from tagua nuts and pumpkin seeds have proved to be a successful artistic venture for Lina O'Connor, a Colombian woman living in California, United States of America. Tagua is also known as natural ivory, vegetable ivory or ivory nut but, whatever the title, it is an ecofriendly, renewable resource.

The palm trees producing these nuts grow in the rain forests of Colombia, Peru, Ecuador, Panama and the Bolivarian Republic of Venezuela. The nut is hard and durable, its colour resists fading and it is not allergenic. O'Connor said that the nut clusters, which can be as big as 25 pounds (11.3 kg) each, fall off and natives harvest them. She notes that "the trees don't need them anymore".

Tagua has been used to make buttons and chess pieces for years, but its use in jewellery (and even in bagpipes) is a more recent development. The seeds are dyed after they are polished, so they are colour-ready when O'Connor starts designing. After the designing process, most pieces take three to four hours to create. O'Connor believes the market for this kind of green jewellery is growing. (Source: *Eagle & Times*, 28 November 2008.)



HOW BUTTERFLIES SAVE FORESTS

The Bombay Natural History Society (BNHS) has a prized collection of butterflies collected over 125 years. Some of the species even help in conservation. In addition, some can fetch between Rs23 169 and 27 803 each.

Issac Kehimkar of BNHS tells about a path-breaking project involving such butterflies that has preserved the forests of Kenya.

"There is a huge demand for butterflies in the United States of America, the United

Kingdom, Singapore, Thailand and Taiwan Province of China. These countries have huge butterfly parks which attract lots of tourists. Because the life of a butterfly is about a couple of weeks, the supply has to be replenished continuously. Farmers in Kenya breed and export them for Rs46–278 each to these countries. Butterflies always lay eggs on forest plants and thus the conservation of forest automatically becomes mandatory. Today the forest has become the livelihood of these farmers.”

When asked why such an arrangement does not exist in India, he said that the export of biodiversity-related items is illegal. Therefore poor farmers find ways of earning money by helping poachers. If such projects are encouraged, poaching will be eradicated. [Source: *Daily News & Analysis* (India), 18 September 2008.]

LA MEDICINA OCCIDENTAL «PUEDE CONVIVIR CON EL SABER LOCAL»

Buenos Aires. Un estudio realizado sobre los hábitos de un grupo indígena en la Amazonía boliviana demuestra que es posible la convivencia entre la medicina científica y las prácticas ancestrales.

El estudio, realizado por científicas de la Universidad Autónoma de Barcelona (España) y de la Universidad de Georgia (Estados Unidos) y publicado en el *Journal of Ethnobiology and Ethnomedicine* el 18 de agosto pasado, evaluó el modo en que los Tsimane, en la selva boliviana, actúan ante la enfermedad.

Detectó que en primer término los indígenas acuden a los tradicionales curanderos locales y sólo en segundo término, o ante casos de particular gravedad, recurren a la medicina occidental, sobre todo si se trata de afecciones gastrointestinales.

Según distintas encuestas y entrevistas realizadas por las investigadoras, existe entre los pobladores locales, que suman unos 8 000, la voluntad de sumar lo mejor de ambas formas de curar la enfermedad y llegar a una especie de «sinergia» entre ambas. Según lograron determinar los médicos y los curanderos locales están de acuerdo en que la tuberculosis debe ser tratada con medicinas occidentales, mientras que otros males, como la diarrea, pueden ser resueltos con remedios basados en la vegetación local.

Para las autoras del estudio, esto es posible pese a ciertas particularidades del acervo cultural local que hace que no existan nombres de las enfermedades sino meramente síntomas, que la creencia en la brujería como factor causal de males está muy extendida y que se piense en ambos tipos de «medicinas» como sistemas independientes de conocimiento.

La investigación, según el cardiólogo argentino Daniel Flichtentrei, jefe de contenidos médicos de IntraMed, afirmó a SciDev.Net: «esto pone en evidencia que las personas encargadas de paliar los sufrimientos no tienen prejuicios académicos ni culturales a la hora de reunir esfuerzos en esa dirección».

Y agregó que «los pueblos originarios no emplean remedios diferentes para tratar las mismas enfermedades que los médicos occidentales sino que la distancia es mucho más compleja: entre ambas culturas las categorías de salud y enfermedad suelen ser completamente distintas».

Por lo tanto, abogó en ese sentido por un tipo de «medicina sincrética en la que enseñen y aprendan mutuamente los ‘médicos’ de una y otra cultura». [Fuente: SciDev.Net Weekly Update (1-7 de septiembre 2008).]

NATURAL RELIEF FROM OSTEOARTHRITIS

Extracts from NWFPs provide relief from osteoarthritis

Osteoarthritis is the condition characterized by degeneration of the protective cartilage that prevents bone from rubbing on bone. Frustratingly, the latest research shows that most over the counter medications are all but ineffective. Yet extracts of various NWFPs are showing remarkable results.

One of these is a South African herb known as devil’s claw (*Harpagophytum procumbens*), which contains the anti-inflammatory compound harpagoside that in a few controlled trials has allowed subjects to reduce other pain medications (see following article). Cat’s claw (*Uncaria tomentosa*), a vine growing in the Peruvian jungle, also has anti-inflammatory properties. There is further evidence of the helpful properties of extracts of the *Boswellia serrata* plant, commonly known as frankincense.



Harpagophytum procumbens

These, among other NWFPs, offer much hope for sufferers of osteoarthritis. However, more research, investment and human trials of the extracts of the products, which appear to be safe, are required. Most important, rain forests must be preserved for further research, so that these plants will not disappear before their potential is discovered. [Source: extracted from: J. Schwarcz, 2008. *The right chemistry – beware of the blood therapy*. Montreal [Canada], Canada Gazette.]

Devil’s claw – a promising remedy for pain

Devil’s claw (*Harpagophytum procumbens*) is a ground-trailing plant that gets its name from its strange-looking fruit. After the flowers die, they leave a woody fruit with long, barbed spines.

The plant is native to many parts of southern Africa, where it is also called the grapple plant or wood spider. The part used medicinally, however, is underground. The roots grow tubers that look like sweet potatoes and have been used traditionally to relieve inflammation, pain and stomach problems.

The herbal remedy was studied extensively in Germany at the beginning of the twentieth century. Recent interest has focused on its potential to relieve pain and inflammation associated with osteoarthritis. While many dietary supplements and herbal remedies are now being marketed for osteoarthritis, few have been tested rigorously or extensively.

Devil’s claw is a herbal remedy that shows promise in this area. While very few clinical trials have been conducted, it has been shown to be as effective as some other

conventional medications used for osteoarthritis.

However, since the symptoms of osteoarthritis vary a great deal, it will be important to test devil's claw in larger and longer-lasting studies and to continue investigating any adverse effects. [Source: *Irish Times* (Ireland), 2 December 2008.]

Pine bark reduces knee osteoarthritis

Bratislava. A third clinical trial in Slovakia confirms evidence that the antioxidant pycnogenol lowers joint pain, researchers said.

A study, published in the August *Journal of Phytotherapy Research*, said pycnogenol – a bark extract from the French maritime pine tree – reduced overall knee osteoarthritis symptoms by 20.9 percent and lowered pain by 40.3 percent. [Source: United Press International [United States of America], 4 September 2008.]



NEW AGREEMENT TO PROMOTE SUSTAINABLE COLLECTION OF WILD PLANTS

Barcelona. An important agreement was signed today between the four founding institutions of the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) to endorse global implementation of the standard through the FairWild Foundation.

ISSC-MAP is a standard that promotes appropriate management of wild plant populations used in medicines and cosmetics to ensure they are not overexploited. Under the new agreement, the FairWild Foundation will help develop an industry labelling system so products harvested using the sustainable ISSC-MAP criteria can be readily recognized and certified. Use of the standard will be promoted throughout the herbal products industry.

ISSC-MAP was developed by a partnership including the German Federal Agency for Nature Conservation (BfN), the IUCN SSC Medicinal Plant Specialist Group (MPSG), WWF-Germany and TRAFFIC, plus industry associations, companies, certifiers and community-based NGOs. The announcement was made at the World Conservation Congress in October 2008.

"This new agreement marks a significant step forward in the sustainable use of wild plants important to human health and well-

being. Industry adoption of the standard will ensure sustainable use and equitable sharing of the world's wild plant resources, reinforcing the healthy environments, healthy people theme running throughout the World Conservation Congress," said IUCN Director-General Julia Marton-Lefèvre, signing the agreement on behalf of IUCN.

"A successful wild plant collection standard is essential to ensure sustainable use of medicinal plants not only for purposes of nature conservation but also in a social and economic context. Germany, as one of the major medicinal plant importers worldwide, has a special responsibility of acting upon such principles," said Professor Beate Jessel, President of BfN.

More than 400 000 tonnes of medicinal and aromatic plants are traded annually, with around 80 percent of the species harvested from the wild. Almost 3 000 species are traded, many of them overexploited and in danger of extinction through overcollection and habitat loss. Implementation of the standard will stop more plants being overexploited and becoming threatened with extinction under IUCN's Red List criteria.

"Worldwide, people depend on medicinal plants and profit from the unique therapeutic effects of medicine from nature's pharmacy," said Guillermo Castilleja, Executive Director of Conservation, WWF. "This new agreement is a significant step forward in ensuring the long-term sustainability and supply of these invaluable natural products."

"Overharvesting of wild plants is a serious, yet often neglected issue. This timely agreement is a milestone on the road to seeing sustainability become the norm throughout the herbal products industry," said Steven Broad, Executive Director of TRAFFIC.



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American Botanical Council

Established in 1988, the American Botanical Council (ABC) is the leading non-profit, member-based international organization working to educate consumers, health care professionals, researchers, educators, industry and the media on the safe and effective use of herbs and medicinal plant products.

ABC is located in Austin, Texas (United States of America), where it publishes *HerbalGram*, a peer-reviewed quarterly journal, *HerbClip*, a twice-monthly scientific literature review service; and *HerbalEGram*, a monthly electronic newsletter.

ABC is also the publisher of *The ABC clinical guide to herbs*, a continuing education and reference book, which contains extensive monographs on the safety and efficacy of 29 popular herbs, and the recent *The identification of medicinal plants: a handbook of morphology of botanicals in commerce*, a guide to the macroscopic identification of botanical materials for industry quality control laboratories that ABC has published in cooperation with the Missouri Botanical Garden.

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Centre de Recherche pour la Gestion de la Biodiversité et du Terroir (CERGET)

Le Centre de Recherche pour la Gestion de la Biodiversité et du Terroir s'occupe de la conservation et de la gestion durable des ressources naturelles. A savoir:

- Gestion et conservation durable des ressources naturelles
- Inventaire de la faune mammalienne, entomologie de la faune et des forêts
- Protection durable des plantes
- Bonnes pratiques agricoles et phytosanitaires

- Conservation durable du singe à ventre roux «Zin Kaka», espèce menacée
- Valorisation des écosystèmes naturels par le tourisme et l'écotourisme
- Accueil de stagiaires dans différents domaines.

Le Centre recherche des partenaires pour une collaboration durable et d'échanges.

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POUR PLUS D'INFORMATIONS, CONTACTER:

M. Séverin Tchibozo, Centre de Recherche pour la Gestion de la Biodiversité et du Terroir (CERGET), 04 B.P. 0385 Cotonou, Bénin. Télécopie: (+229) 21303084; Courriel: tchisev@yahoo.fr; Site web: <http://www.cerget.org/>



El Puente/The Bridge

El Puente/The Bridge is a non-profit, human services organization based in the Costa Rican rain forest, working with the indigenous Bribri. It provides educational assistance, food assistance and microloans mainly to indigenous people in the southeastern part of Costa Rica. Its goal is to help people help themselves to self-sufficiency.

Along the way, the Bridge has run into a local *curandero* with a passion for applying his knowledge of medicinal plants and for preservation of his culture. We are already in the planning stages of a workshop, in which the *curandero* will work with doctors and other medical personnel to share this vital knowledge from the rain forest.

We have also learned about Guadua bamboo, which is more efficient than "normal plants" at carbon sequestration and oxygen production, can create revenue for the indigenous people by selling it as food, furniture and, ultimately, as construction material – and collect revenue from the international community as "carbon credits".

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 **NTPF CURRICULUM**

At long last the Nontimber Forest Product Curriculum Workbook written by Dr Kathryn Lynch is available through the Institute for Culture and Ecology Web site.

Despite enthusiastic interest from two publishers, the book got halted in their marketing departments because it is so big and expensive to produce that they were concerned they might lose money. We decided to offer it directly through our Web site as an electronic download and let people make a donation after deciding what it is worth to them. This approach also has the advantage of letting us view the curriculum as a work in progress and update and expand it into the future.

The workbook was funded by the National Commission on Science for Sustainable Forestry and has been extensively peer-reviewed. We welcome feedback from users.

Last, NTFPs are such a big and diverse concept that this curriculum still just scratches the surface, even for the United States of America, our geographic focus. Is there a need and a path forward to create an international repository for curriculum materials? It seems there would need to be a Web site where lesson plans, syllabuses and handouts could be shared. Royal Roads has the online bibliographic database but would that work? Could it accommodate any language? Who would edit and maintain it?

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Eric T. Jones, Ph.D., Environmental Anthropologist, Institute for Culture and Ecology (501c3), PO Box 6688, Portland, Oregon 97228-6688, United States of America. E-mail: etjones@ifcae.org; www.ifcae.org; Nontimber Forest Products Curriculum Workbook Web site: www.ifcae.org/projects/ncssf2 [Eric Jones has coauthored the guest article of this issue of Non-Wood News.]

 **PREVENTING GUM DISEASE WITH CAMU CAMU**

Camu camu (*Myrciaria dubia*) is one of the best super foods for preventing gum disease, as well as providing our bodies with endless benefits: it has the highest amount of vitamin C in the world and also contains bioflavonoids.

Studies show that a low immune system is one of the main reasons for unhealthy gums ... and camu camu boosts the immune system like no other food. [Source: Natural News.com [United States of America], 1 December 2008.] [Please see page 50 for information on camu camu in Peru.]

 **RECREATIONAL USE OF EUROPEAN FORESTS**

According to nationwide recreation demand surveys, 40–96 percent of the populations in different European countries visit forest areas for recreation purposes annually. For example, each year some 40 percent of all Italians walk or hike in forests and 56 percent of all Danes study and enjoy forest nature. In areas with high population densities and low forest cover, forests represent one of the main accessible land uses for recreational purposes. [Source: *Making European forests work for people and nature*. EFI Policy Brief 1, 2007.]



 **THE AFRICAN HEARTLAND TRUST FUND**

The upcoming African Heartland Trust Fund (AHTF), administered by the Africa Region of the World Bank with a US\$5.5 million trust fund programme for supporting forest sector reforms in Congo Basin countries, will involve work under three pillars.

1. *Strategic outreach* to civil society and decision-makers so that they are better informed, committed and actively engaged as agents of change in implementing forest sector reforms. Rural communities, technical ministries, civil society, parliamentarians and decision-makers in developing and industrialized countries will take part in coordinated activities.



2. *Making reforms work for the poor*, providing local communities with the tools and third-party support they need to secure the benefits stemming from new forest policies. Structured partnerships between local communities and qualified NGOs will help review the status of implementation of social responsibility contracts signed with the private sector and other frameworks expected to yield benefits to local communities.

3. *Increased finance for non-consumptive use of forests* by engaging a debate with corporations on environmental services and non-consumptive use of forests. (Source: E-mail announcement, International Institute for Sustainable Development, New York, United States of America.)

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THREATENED PLANTS EMIT "ASPIRIN"

Forest plants subjected to stresses, such as drought, emit an aspirin-like chemical that can be detected in the air above them, American scientists have discovered.

Thomas Karl, the lead researcher at the United States National Centre for Atmospheric Research, believes that the chemical, methyl salicylate, may be a sort of immune system response. "Plants can produce their own mix of aspirin-like chemicals, triggering the formation of proteins that boost their biochemical defences and reduce injury," he says in the journal *Biogeosciences*.

The chemical can be sensed by other plants and may be a means of communication. Previous studies have shown that plants being eaten by animals produce chemicals that are sensed by other plants nearby. (Source: Times Online [United Kingdom], 19 September 2008.)

TRADITIONAL ECOLOGICAL KNOWLEDGE AND CERTIFICATION PROCESSES

Evaluations of initial attempts at NTFP certification reveal substantial ecological, socio-economic and administrative obstacles for forest product collectors. However, the problem of lack of sufficient scientific understanding of the ecology of NTFP species can sometimes be addressed by recognition and documentation of traditional ecological knowledge (TEK). Increasing local input regarding NTFP resource inventories, production/yield, development of criteria and indicators, and monitoring sustainable management can offer valuable contributions to the certification process.

Besides benefiting efforts at certification, such attention can foster needed appreciation and local documentation of TEK. Cases from Namibia, the Philippines and Brazil are used to demonstrate how local initiatives in sustainable resource management strengthened communities' understanding of their resource base. The process of sharing ecological knowledge locally can catalyse broader objectives of community empowerment and sustainable management – with or without a seal. (Source: P. Shanley and M. Stockdale. 2008. Traditional knowledge, forest management and certification: a reality check. In M. Philip (ed). *Forests, Trees and Livelihoods*, 18(1). United Kingdom, AB Academic Publishers. ISSN 1472-8028.)

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WILD NWFPs OF THE WESTERN HIMALAYAS – NEW CD-ROM

A new CD-ROM, entitled "Some wild growing fruits, nuts and edible plants of the western Himalayas", provides information on 30 wild growing fruits, 11 wild growing nuts and ten wild growing edible plants in this unique region.

Complete with detailed information and over 150 photographs, the new CD-ROM is a follow-up to and continuation of the book *Wild fruits of the sub-Himalayan region*, published in 1982. The information on the CD-ROM is available in both PDF and PowerPoint® format.

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