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CFA Newsletter

is the newsletter of the Commonwealth Forestry Association

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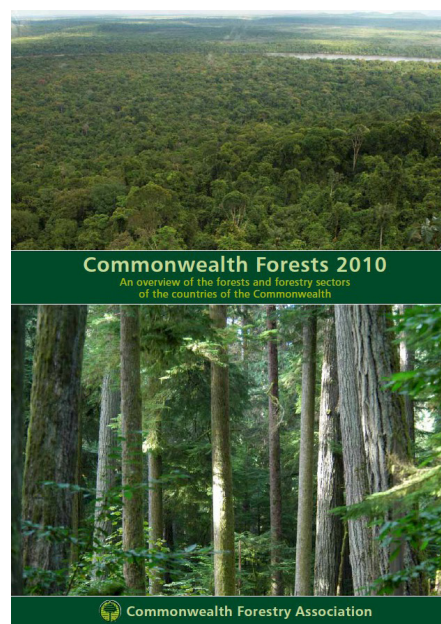
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Commonwealth Forests 2010

The CFA is pleased to announce the publication of *Commonwealth Forests 2010 – an overview of the forests and forestry sectors of the countries of the Commonwealth*. It is a revised and expanded version of the book which first appeared in 2008 and contains the most up-to-date and extensive information available on the Commonwealth's forest resource. In his introduction, Mark Collins, Director of the Commonwealth Foundation posed the question, in the three years since the first edition of *Commonwealth Forests* was produced "we learnt that the Commonwealth's forests are disappearing about 70% faster than the rest of the world's. In this re-evaluation the figures remain broadly the same. Are we doing enough?". Not surprisingly this book suggests that the picture is worrying and there is much that needs to be done.

The purpose of this volume is not to provide a blueprint for survival but an outline of the facts that can be used by foresters, policy makers, scientists and students in their work. Forests in the Commonwealth make up about one fifth of the world's total forest cover, but in most Commonwealth countries natural forests continue to be destroyed and degraded. This is having profound effects on our environment and our society. We all depend heavily on forests for the services they provide, whether it is the local benefits of provision of food and shelter or on the international scale through the crucial role that forests play in the management of global carbon emissions. But we can only begin to appreciate, conserve and manage our forests if we understand how they function at biological and economic levels. The people of Commonwealth countries have a long history of forest exploration, documentation and use, all of which has been synthesized in this volume to enable the reader to gain a thorough understanding of our shared forest resource.



The book is divided into eight chapters and seven annexes. The chapters cover The Forest Resource; Sustainable Forest Management; Benefits from the Forest; Forest policy, Law and Administration; Professional Education in Forestry, Forest Research in the Commonwealth, and The Commonwealth and the International Forestry Dialogue. While the annexes provide valuable facts and figures on the forest resource, management and conservation, wood production and consumption, employment, forestry journals, forestry associations and international forestry fora.

The volume is larger than its predecessor, being A4 in size and lavishly illustrated throughout. Participants at the Commonwealth Forestry Conference in Edinburgh will each receive a copy while individual copies are available from the CFA at £10 plus postage and packing. The full text is available free of charge on the CFA website to either read or download

The book's central message is echoed in Prince Charles's conclusion to his

message “Forests a major element of our common wealth; is it imperative that we continue to work together to find ways to

protect, preserve and value them.”

Forest scenes

Deeper economic thoughts on forest-based carbon trade –part two¹

It is imperative to reiterate that forests offer the single largest opportunity for cost-effective and immediate reductions of carbon emissions (Stern, 2006; Enkvist, *et al.*, 2007; IPCC Report 2007). Forests are like giant utilities providing ecosystem services that we all benefit from but we generally do not pay for, and they are likely to be worth billions of dollars per year; though these services may not be accounted for in current markets, their loss will have massive economic impacts (Mitchell *et al.* 2007). Enkvist *et al.* (2007) posited that the potential in forestry and agriculture must be effectively addressed in order to obtain a cost conscious reduction of GHGs. They further stated that forestry measures – protecting, planting, and replanting forests – make up 6.7 gigatons of the overall 26.7 GtCO₂e¹ of the potential annual abatement by 2030 (at a cost up to US\$55 per ton) and at this level, tropical deforestation rates could be reduced by 50% in Africa and by 75% in Latin America thus generating nearly 3 gigatons of annual abatement by 2030.

Over the next 100 years, global forested ecosystems are projected to release 29 billion tons of carbon and these losses are projected to occur largely in tropical regions, where annual average forest carbon emissions are projected to be 334 million tons per year, mainly from deforestation (Sohngen *et al.* 2000). By 2050, global forests could sequester 12.7 to 33.8 billion metric tons of carbon at carbon prices ranging from \$30 to \$92 per ton, while over the next 100 years, forests could sequester 38.6 to 102 billion tons at carbon prices ranging from \$61 to \$187 per ton, and approximately 70% of these sequestered carbon are predicted to be stored in tropical and subtropical regions of South America, Africa, and Asia-Pacific (Sohngen *et al.* 2000). However, deforestation is progressing at a rate of 13 million hectares annually in these tropical forests (Laurance 2008), thus increasingly contributing to the 18-25% abatable CO₂ emission traceable to deforestation (Mitchell *et al.* 2007). To effectively abate the rising atmospheric CO₂ and forestall an impending global climate-change scourge on the economy, it behooves us to slow deforestation and encourage forestry-based activities by creating a balanced market approach that will provide incentives to landowners and discourage the currently immense conversion of forest lands to agricultural production.

In more precise terms, there is the pressing need to structure a compensatory means for developing and under-developed nations; given the existing opportunity cost, they are more inclined to clear-off their rich tropical forests for alternative and more rapid income-generating agricultural purposes. As

earlier stated, the incentive to convert forest area is greater for these nations especially at the local levels thereby leading to the rapid depletion of the global tropical forests. It must however be noted that these tropical forests are indispensable in mitigation of carbon emissions, and more importantly, the mainstay of forest carbon sequestration.

Eighty percent of the cumulative amount of carbon that could potentially be conserved and sequestered from 1995 to 2050 is predicted to be in the tropics, while the temperate and boreal zones will account for 17% and 3% respectively (Nilsson and Schopfhauser, 1995). NASA's TRMM satellite data shows that Brazil's billion dollar soybean, beef and bio-fuel industries all depend on rain generated by the Amazon. Amazonian forests pumps about 7 trillion tons of water per year into the atmosphere via evapo-transpiration, providing the vapor that keeps the regional climate humid and rainy (Moutinho *et al.* 2005), and 70% of Brazil's electricity is sourced by hydropower which is also dependent on Amazonian's rain (Mitchell *et al.* 2007). The importance of these tropical forests both to the developing economies that they support and to the environment makes it expedient that some real measures be taken to impede their destruction. This will not happen unless it is backed-up by a market that favors the sustainable management of the forest. As conservation has proved to be no match for commerce, without commercial support, it is predicted that 115 billion tons of CO₂ will be released as a result of deforestation in the Amazonas state alone by 2050 (Mitchell *et al.* 2007).

Contrary to critics' stance that forest carbon trade is a means for the developed nation to defraud or exploit developing nation, the trade creates a paradigm shift to a win-win scenario in international carbon markets. Wealthy nations could pay poor nations to help slow deforestation as part of an overall effort to meet their emission target. Protecting an imperiled forest in Peru, for instance, might lead to the same net reduction of carbon emissions – and be considerably cheaper – than retrofitting a coal-fired generating plant in Ohio. In a transaction like this, dangerous carbon emissions are reduced, a biologically rich forest is protected, and Peru gains the direly needed foreign earnings (Laurance, 2008). According to Brown *et al.* (2000), the cost of carbon sequestration in developing countries are relatively low hence developed nations can offset their emissions at a lower cost while contributing to the national economy of the developing countries through support for rural livelihoods (Smith and Scherr, 2002) and improvement of the overall foreign earnings (Niles *et al.* 2002).

¹ See CFA Newsletter 48 (March 2010) for part one.

Landell-Mills, *et al.* (2002) warned that carbon markets will increasingly generate competition for the forest resources on which the poor depend, as wealthier and more powerful stakeholders seek to control emerging benefits. It is essential that governments accelerate efforts to secure local rights to forest resources and protect them from usurpers especially in developing countries (Smith and Scherr, 2002). Alternative compensation mechanisms for forest carbon projects, according to Smith and Scherr (2002), could be by paying per tree-grower, paying for forest establishment or protection, making more profitable and sustainable land-management possible, and paying communities with improved services. The forging of a balanced system that offers financial and institutional incentives to forest landowners will greatly reduce the rates at which forest lands are being turned into agricultural land and will as well stimulate an increase in the extent of the global forests which will serve as active sink for emitted carbon. Policy and implementation tools of organizations that are spear-heading the carbon trade initiative should however be meticulously designed without bias, for a balanced market-structure to be established towards ultimately giving impetus to green technology development.

Julius Adewopo

CFA-IFSA Student Liaison Officer

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The Canadian Boreal Forest Agreement

Twentyone of the largest Canadian forest products companies and nine national environmental organizations signed a landmark agreement in May to halt logging in some parts of the country's boreal forests. The Canadian Boreal Forest Agreement (www.canadianborealforestagreement.com) covers more than 72 million hectares of public forests licensed to members of the Forest Products Association of Canada (FPAC).

Under the Agreement, FPAC members commit to the highest environmental standards of forest management and conservation, while the environmental organizations commit to global recognition and support for FPAC members efforts, including a truce in their call for boycotts of the FPAC members' products. The Agreement calls for the suspension of new logging on nearly 29 million hectares of boreal forest and the development of conservation plans for caribou. FPAC members have also committed themselves to the highest environmental and

sustainability standards of forest management within the total area of 72 million hectares of the Agreement.

There have been criticisms of this historic Agreement between the private sector and environmental NGOs: for example, the governments and organisations of indigenous peoples were left out of the negotiations, which were conducted in secret, and the so-called "three year" deal is actually only two years – it started on April 1, 2009 with expiry on April 1, 2012.

The world's boreal forests are important not only for the production of industrial roundwood but also as a major reservoir of carbon, stored above ground and below ground in the roots and above all in the soil. Canada's boreal forest covers 310 million ha so that the Agreement covers a relatively small part of the national boreal forest area. Whatever the outcome of the Agreement after 2012, however, there is no doubt that boreal forest is important to Canada – it covers 77% of the national forest area - and Canada, which accounts for nearly one third of the global boreal forest, is important

to the world. Perhaps the Agreement may be a model for the rest of the boreal forest type.

There is more information on the boreal forests of the Commonwealth – and indeed on all forest types - in the newly-published Commonwealth Forests 2010, See our

website for more details.

Jim Ball
CFA Chair

The Marcus Wallenberg Foundation announces the 2010 Prize winner

The 2010 Marcus Wallenberg Prize has been awarded to Professor Hans Joachim Blass, Karlsruhe Institute of Technology (KIT), Germany, for his path breaking work regarding innovative and reliable structural timber connections which have high load transfer capacity and can be efficiently applied at construction sites and within industrial processes.

Wood as a construction material offers several important environmental benefits. It is renewable, it stores carbon that has been sequestered from carbon dioxide in the atmosphere, it provides excellent opportunities for reuse and, when recycled, it serves as a carbon neutral source of energy.

The competitiveness of timber as a building material depends on the properties of the wood components themselves but to a large extent also on connections between components. In engineered wood structures, the capability of connections to transfer loads is commonly a limiting factor. The anisotropic nature of wood – with significantly weaker mechanical properties across the grain compared to along the grain direction – makes design and modelling of load bearing capacity of connections complicated. This has been a constraint to the use of wood in general and, in particular, for larger constructions like bridges, big stores, sports arenas, agricultural buildings, industrial buildings and spectacular official buildings.

Professor Blass has by extensive research provided fundamental engineering knowledge on timber connections and converted this knowledge to usable format for practising engineers based on principles of mechanics. He has also developed methods for designing connectors and connections and played an important role in the international standardization of these methods.

Professor Blass has pioneered the application of self-tapping screws in timber constructions, promoting the manufacturing of very large screw dimensions and developing and introducing these connections for high load applications. This work has led to much simplified methods for repairing damaged beams and reinforcing new ones.

The development and introduction of efficient connections which are easy to install make it possible to construct large timber structures and save timber material while offering attractive logistic solutions by use of prefabricated elements.

The developments made by Prof. Blass have been of importance for the increased use of larger wood based construction elements like glulam, which in Europe has

increased in use by more than four times since the mid 1990s. They have also contributed to the significant increase in the timber frame market share of new housing, which e.g. in UK has more than doubled over the last decade.

Professor Hans Joachim Blass

Professor Blass was born in 1955. He took his PhD in 1987 at the faculty of Civil and Geodesic Engineering at Karlsruhe University. After employment at Karlsruhe University, Germany, Forintek Canada Corp., Canada, and TNO Building Research, Delft, The Netherlands, he was appointed Professor for Timber Structures at Delft University of Technology, Delft, The Netherlands. Since 1995 he has been Professor of Timber Engineering at Karlsruhe Institute of Technology, KIT (founded on 1 October 2009 through the merger between the Karlsruhe Research Centre and Karlsruhe University), and Director of its Material Testing Institute for Steel, Timber and Masonry (Versuchsanstalt für Stahl, Holz und Steine). Besides his academic career, Professor Blass is actively involved in the standardization work on timber structures and in knowledge transfer of challenging timber structures both within Europe and outside. Professor Blass is partner in Blass & Eberhart Consulting Engineers, Karlsruhe, Germany.

Prize Ceremony and Symposium

The Prize will be presented by His Majesty, The King of Sweden, at a ceremony in Stockholm on 27 September, 2010. On 28 September, a symposium around the subject of the Prize-winning research and its impact on the forest and forest products industries will be arranged.

The Marcus Wallenberg Prize

The Marcus Wallenberg Prize is an international prize that was established in 1980 to acknowledge the lifetime activities and the memory of Marcus Wallenberg, the late Chairman of Stora Kopparbergs Bergslags AB (now Stora Enso). Each year the Prize recognizes a single research breakthrough by one scientist or a small group of collaborating scientists. In the view of the Prize Selection Committee and the Board of the Foundation, the selected breakthrough will have a significant effect on the industries. While rewarding the winner, the Prize is also intended to stimulate further research around the world. This year, the Prize will be given for the 27th time. The Prize sum is two million SEK. For more information about the Marcus Wallenberg Prize, please visit www.mwp.org

TechTalk

TechTalk is a web based question/answer help-desk for agricultural, forestry, environmental, rural development and food security projects. We are currently seeking experienced Foresters who wish to share their skills and expertise with development projects around the globe.

A A International Ltd is an agricultural consultancy that was created in 2005 as a spin-out from the University of Wales, Bangor. Two years ago we set up TechTalk, a web-based question/answer helpdesk for natural resources based projects worldwide. This is a service that we run on a not-for-profit basis. That is, we undertake that any profits that are generated via the service will be used to reduce future subscription charges.



The advice we provide is accessed from our database of experts, which include members of the Tropical Agriculture Association (UK) and advisors from Universities and CGIARs and other professional organisations.

The service is growing steadily and we now provide support to high profile international NGO projects in Lao, Pakistan, Ethiopia, Mozambique, Georgia and beyond.

How the service works is that subscribing projects send us their questions. These questions are reviewed by our staff and are then forwarded to a suitably experienced expert, selected from our database. Answers are returned to us within 2-3 days and are quality checked by technical TechTalk staff before being returned to the subscribing project within a guaranteed time frame of 3-5 days.

Some Examples of Feedback from NGOs who are using TechTalk

Noah, Zimbabwe, May 2010

“The comprehensive answer is going to enhance our farmer extension messages greatly. More questions will be with you soon and consistently.”

Mulugeta, Ethiopia, April 2010

“Very comprehensive, very professional and timely. We hope that we continue getting advice from TechTalk and will be practicing this advice on the ground.”

George, Sudan, September 2009

“Thank you very much indeed for the information. It is most useful and exactly the information we require at this stage before we plan a scoping visit to South Sudan in the coming weeks.”

Tim, Georgia, December 2009

“Thanks for the quick turnaround and an excellently presented answer. This will help us with an intervention which focuses on capacity building small mills to diversify into cattle and pig feed.”

As one of the examples below demonstrates, TechTalk is receiving Forestry related questions from its subscribers. The number of projects subscribing to TechTalk is growing and, therefore, we are currently looking to recruit additional Forestry experts onto our database. **Foresters who are interested in assisting development projects, by providing their advice and expertise on an occasional basis, are invited to get in touch with us (a small fee is paid to all experts for each question that is answered).**



Examples of Recent Exchanges



An example of a recent forestry related exchange is a question from an International NGO based in the Afar region of Ethiopia, seeking advice on the enormous problem of mesquite (*Prosopis chilensis/ Prosopis juliflora*) encroachment.

By directing this question to one of our experts, an agroforester with many years' practical experience working with mesquite in East Africa, we were able to provide advice on this problem within 5 days. Additional information on biocontrol of mesquite was also sourced by linking to researchers in the Department of Water and Forestry Affairs in South Africa, where the problem of mesquite control also pervades.

The control methods presented and discussed in the answer included tree/seedling removal, seed collection, coppicing,

biocontrol agents, burning and chemical application. To read the full exchange, you can go to our website at www.techtalk-international.com and click on "Example Questions."

Another question we recently received was from another NGO in Ethiopia requesting advice about *Lupin albus* and its potential uses.

One of our experts from the School of Natural Resources and Geography at Bangor University provided a detailed response regarding the advantages and disadvantages of *Lupin albus* as a food source for humans and livestock, its value as a source of income to farmers' livelihoods and the use of

Lupin albus in increasing soil fertility and stabilising soil and water conservation structures. The project is now planning to implement the advice provided and has included it in the activities of a newly proposed Water Resource Protection and Watershed Management Project.

If you would be interested in sharing your expertise with international projects around the globe then please get in touch at info@aainternational.co.uk or you can contact us via the TechTalk website www.techtalk-international.com



'reducing the carbon footprint of overseas consultancy'

Publications

Forestry, Biomass & Sustainability 2010

The presentations from the CFA-supported meeting Forestry, Biomass & Sustainability held on 13-14 May in London, UK are now available for download at <http://www.environmental-finance.com/pages/fbs10-presentations>

KEYNOTE ADDRESS: Outlook for policy and economics of forestry and biomass

Tim Rollinson, *Director General*, Forestry Commission of Great Britain

PANEL DISCUSSION: Investing in sustainable forestry

- Forestry as an asset class
- Sustainability criteria
- Investor trends and drivers
- Analysis of income streams from forests
- Assessing potential returns
- Aims and achievements of new forestry funds
- Where next for sustainable forestry investment?

Moderator: Mark Campanale, *Director*, Four Elements Capital

New Demand Drivers and Sustainable Forestry Investment

Pedro Moura Costa, *Senior Carbon Markets Specialist, former President & Founder of EcoSecurities*

A view from the power sector

Daniel Davidson, *Feedstock Director*, Helius Energy

Investing in Sustainable Forestry

Carbon Streams from Forestry. Simon Glossop, *Partner*, CF Partners

Public vs private funding of forestry protection

Alice Chapple, *Director*, Sustainable Financial Markets, Forum for the Future

Forestry and the carbon markets Outcome from the UN climate change conference in Copenhagen on reducing emissions from deforestation and degradation (REDD) in developing countries and the practical implications for business and industry

Christopher Webb, *Manager*, Sustainability and Climate Change, PwC

Ways of linking forestry with the different emissions trading markets around the world

Monique Lussier, *International Climate Change Advisor & Attorney*, Irbaris

Hedging and managing risk of forestry assets

- Modelling risk in forestry
- Risk transfer for forestry, forest biofuels and forest carbon
- Insurance of forestry assets

Phil Cottle, *Managing Director*, ForestRe

CASE STUDY: Forestry assets for long-term investors

- Pension funds and other instruments

Christian del Valle, *Director*, *Environmental Markets*, BNP Paribas;

Vice-Chair, *REDD Working Group*, CMIA

CASE STUDY: Forestry and W2E (waste to energy) investing - capturing returns and sustainability through globalisation and technology transfer

Hendrik Verest, *Managing Director*, FourWinds Capital Management

CASE STUDY: New Zealand carbon forestry project

- Overview of the market
- Risk management of a carbon forest

Forbes Elworthy, *CEO*, Craigmore Funds Group

Examining different standards for forest carbon projects

- Overview of standards and how they function with forestry projects

- What role can registries play in future?

David Antonioli, *CEO*, Voluntary Carbon Standard Association

Sustainable biomass as a driver in forestry protection, employment and poverty reduction

Duncan Macqueen, *Team Leader - Forests*,

International Institute for Environment and Development (IIED)

Connecting forestry, biomass and carbon

- Biomass projects in the CDM
- Role of the carbon markets in protecting forests
- Methane capture projects in the CDM
- Biomass projects for small-scale power generation
- Bio-char – assessing the carbon sequestration potential

Moderator: Gareth Phillips, *Chief Climate Change Officer*, Sindicatum Carbon Capital

GCS: the + in REDD

Michael Dutschke, *Director*, Biocarbon Consult

Sequestration versus Utilisation: Relevant Concepts

Noel Forrest, *Analyst*, MGT Power

The Real Cost of Biomass

conferences@environmental-finance.com.

UK Institute of Chartered Foresters annual meeting proceedings available

The UK ICF held their national conference from 28-29 April in Newcastle Upon Tyne entitled Forests & Energy Maximising their potential

The following presentations are available to download from http://www.charteredforesters.org/upload/file/Downloads/ICF_ConferenceProceedings_2010.pdf

The global potential for energy production from forests Adrian Whiteman

UK policy background: renewable energy strategy 2009 and beyond Gaynor Hartnell

A macro understanding of the energy market Joe Clarke

CAP reform post 2013: opportunity or threat? Andrew Clark

On-shore wind development and the impact of forestry policy Mandy Gloyer

Biomass in North East England Martin Glynn

Energy strategies for forest owners Jason Beedell

Medium scale heat and CHP in Finland Jyrki Raitila

Creating a wood heat market in the midlands Richard Harvey

Wind farms in forestry: experiences of wind farm design and EIA from Wales John Woodruff

Management of small woodlands in Germany: woodfuel one part of the story Jörg Schweinle

Biomass energy and traditional forest industries: can they co-exist? Alistair Kerr

The biomass heat accelerator Kieran Allen

Short rotation forestry and its relevance to the UK John Purse

Stump harvesting and residue baling: its role in increasing biomass production Peter Whitfield

Vietnam: Why REDD+ needs local people

With much of Vietnam's forest area already actively managed by local people, and given Vietnam's early engagement in REDD+ readiness initiatives, the country is emerging as a global leader in community-

led climate change mitigation in the forest sector. To do so, however, a number of critical issues still need to be addressed. A new publication from RECOFTC outlines why the active engagement of local communities and indigenous peoples is so crucial, and what challenges still need to be

overcome. The critical actions required to ensure the future success of Vietnam's REDD+ program are then summarised.

Key Messages

- **Local people are essential to the success of REDD+ in Vietnam.** *Vietnam's ability to conserve or enhance carbon stocks, and earn REDD+ carbon credits will depend heavily on forest management practices at community level.*
- **Forest areas under community management have great potential for reducing emissions.** *Community forest restoration will make a significant contribution to REDD+.*
- **REDD+ can contribute to poverty alleviation and democratic participation.** *International investments will include social safeguards at every stage of REDD+ planning and implementation.*

But a well-designed REDD+ scheme in Vietnam could go further by ensuring that local people capture a significant share of overall benefits and participate in decision making.

- **Critical actions can be taken now to accelerate progress, and ensure that local people fully realize their potential role in REDD+.** *Expanding forest allocation to communities, securing their rights, and ensuring that transaction and implementation costs are minimized in a performance-based system are all ways to encourage communities to contribute to the success of REDD+.*

(The document can be downloaded at recoftc.org/site/fileadmin/docs/publications/The_Grey_Zone/2010/RECOFTC_people_in_vietnam_for_web.pdf)

Around the world

Indonesia agrees to curb commercial deforestation

Indonesia has declared a two-year moratorium on clearing natural forests as part of a billion-dollar deal aimed at reviving efforts to fight climate change after the collapse of global talks in Copenhagen last year.

The deal, signed at a climate conference in Oslo, is open to other countries and would tie the \$1 billion in funding to "verified emissions reductions" as part of the United Nations-backed effort known as Reduced Emissions from Deforestation and Forest Degradation, or REDD. Under the plan, rich countries help pay for the preservation of forests in developing countries.

REDD projects are widely seen as among the most promising avenues for fighting climate change ever since nations failed to reach an agreement on climate change in Copenhagen last December. Indonesia's part in this deal involves banning new permits for the conversion of virgin forest and carbon-rich peat lands, though analysts say any new laws limiting commercial clearing could prove difficult to enforce. The clearing of forests for commercial uses has helped make Indonesia the world's third-largest greenhouse gas emitter, behind the United States and China, according to some estimates. The country has major timber and paper industries and is the world's leading producer of palm oil.

"Indonesia understands the necessity of doing its part to face the urgent global challenge of combating climate change," said Indonesia's president, Susilo Bambang Yudhoyono. "As a developing country, and an archipelago of 17,000 islands, our people face the brunt of impact of climate change," he said. Mr. Yudhoyono has staked some of his international prestige on fighting climate change, most recently by pledging to cut emissions at least 26 percent by 2020. But such pledges have often been met with skepticism, given Indonesia's high levels of corruption and bureaucratic inefficiency. The government has also been accused of sending out mixed signals. For example,

it recently announced plans for a 4-million-acre agricultural development in the heavily forested eastern province of Papua. "It will not be easy to enforce this," said Krystof Obidzinski, an expert at the Center for International Forestry Research, a nonprofit group in Indonesia. The deal is a model for action pending a more comprehensive global climate agreement, Mr. Obidzinski said, but it could be hobbled by such basic challenges as confusion over what land can be considered virgin forest.

The deal, starting with pilot projects, would provide capital for projects that would help deter deforestation by increasing yields on existing cropland or by steering development to "degraded" land. But Mr. Obidzinski cautioned that much of the degraded land was still covered in forest.

Agus Purnomo, an adviser to Mr. Yudhoyono in at the conference, said the amount of forest land saved under the deal "still needs to be calculated." Licenses already granted to clear peat land or virgin forest would be honored, Mr. Purnomo said. He said the deal included cooperative measures with Norway to root through corruption. "It is not something we are sweeping under the carpet," Mr. Purnomo said. "No, we are entering it with open eyes and we will go one-by-one, systematically addressing the issues. It will not happen within a year or two, it will take several years to come to a meaningful impact."

Mr. Purnomo said Indonesia hoped to extend the moratorium beyond two years, but this would depend on increased international cooperation. "We are not putting our local development as a sacrifice to the world. The world will also need to share the burden of finding alternatives of local development," he said.

www.nytimes.com

Balkans sound alarm over disappearing forests

Illegal logging and unregulated real estate projects are threatening the Balkans' once abundant forests, home to more than half of Europe's bears and to large wolf populations. To alert public opinion to the looming dangers, national parks in the region will rally this month to mark the International Day for Biological Diversity, set a decade ago by the UN General Assembly for May 22.

Albania is one of the world's countries worst hit by deforestation. Woodlands that covered 51 percent of its territory prior to 1990 have now receded to 25 percent, according to several environmental non-governmental organisations contacted by AFP. The Vlora region on Albania's southern Adriatic coast is a prime example, where 102 hectares (252 acres) of forests were cleared to make room for illegal construction, according to the Albanian National Forest Association. Even Albania's national parks such as the Lura, considered a gem of the Balkans with its vast expanse of pine, fir and beech trees, have not been spared by illegal loggers. While ten times more trees are felled illegally than legally, according to the national statistics institute, no one has so far been tried or convicted for the crime.

Romania, meanwhile, still boasts 300,000 hectares of intact forest, the second-largest woodland expanse in Europe after that in Russia. But its national parks, too, are threatened. In Piatra Craiului Park in the Meridional Carpathians, nearly 300 hectares of forests were chopped down illegally between 2004 and 2007.

An environmental group called Agent Green recently staged a protest, using huge logs to write the letter "crime" on one of the now bald mountainsides. "This is a disaster, I've never seen anything like this. If logging continues, the area will turn into a desert," Alex, an environmental activist who declined to give his last name, told AFP.

Official figures also paint a bleak picture: more than 170,000 cubic meters (more than six million cubic feet) of illegally cut timber are seized every year in Romania. Moreover, out of 25,000 fines issued over the last three years, only two have ended up in actual convictions, Romanian junior minister for forestry Cristian Apostol told AFP, blaming "legal loopholes" for the situation. Citing various reports, he said more than 180,000 hectares of forests alone have been illegally cleared since the fall of late communist dictator Nicolae Ceausescu in December 1989. While reforestation might have helped the woodlands, it does not repair the damage done to biodiversity, NGOs say.

Some of Romania's deforestation is blamed on shifts in ownership after the collapse of communism. "The law was there but the necessary structures to enforce it were missing," Apostol told AFP. Today, he said, there are more than 800,000 private owners of forest land and "it is not easy to control all of them. Things have improved, however, thanks to regional enforcement bodies and private firms and foundations," he said, adding more than one-quarter of Romania's forests were now privately managed.

In neighbouring Serbia, which boasts several intact forests, the Endemit environment group deplored that part of Kopaonik national park had been cleared to create sports grounds. "The government must choose between promoting tourism and protecting the environment," Endemit said.

Neighboring Bosnia's forests suffered massive destruction during the 1992-1995 war. Some 100,000 hectares still infested with landmines will remain off limits for many years to come. And local media reports charge that two-thirds of the country's 1,800 sawmills are working illegally.

Forest fires have also wrought havoc in the Balkans. In 2007 Macedonia saw 35,000 hectares turn into ash.

Floods, landslides and depletion of wildlife are only some of the effects of deforestation, according to the Worldwide Fund for Nature (WWF). This month, the environmental group launched a fund-raising campaign to save Romania's bears, whose habitat is threatened by deforestation. Romania's 6,500 bears represent 60 percent of Europe's total bear population, according to official figures. After years of neglect, authorities and NGOs in the Balkans have started taking action to reverse the decline of forest land.

Croatia - where some 140,000 hectares of forests and woodland are still strewn with mines and where forests in general suffered during the 1991-1995 warfare - has slapped severe restrictions on construction in forest areas.

Romania, meanwhile, has pledged tougher sanctions against illegal lumbering, and along with Macedonia and Serbia has launched serious reforestation programs.

Yet Gabriel Paun, the head of Agent Green, warns against expecting miracles. "The trees we are planting now will only turn into a mature forest in 80 years' time," he said. "We won't be there to enjoy it, but we are doing this for the next generations and hoping to see the wildlife return."

www.independent.co.uk

Global: Part-protected forests burn more

Here is a paradox for those trying to save the rainforests. Reducing the rate of deforestation often makes the number of forest fires go up. Yes, up.

The finding came from a study of satellite images of Amazonia by Luiz Aragão of the University of Exeter, UK, and Yosio Shimabukuro at the National Institute of Space Research in São Paulo, Brazil (*Science*, vol 328, p 1275). Pristine forests and farmed areas are largely fire-free. But fires proliferate in half-destroyed forests, where traditional farmers practice slash-and-burn farming in clearings.

This is just the kind of forest that appears to have benefited

from recent Brazilian efforts to reduce the rate of forest loss in the Amazon. The study found that 59 per cent of forest areas where deforestation rates dropped between 2000 and 2007 have more fires than they did before.

This is more than a statistical quirk. In the past two weeks, climate negotiators meeting in Bonn, Germany, have been trying to thrash out rules for REDD, a way of paying developing countries to cut deforestation and so cut carbon emissions. But if reduced deforestation results in more fires, the carbon-saving could be much less than expected.

www.newscientist.com

Cameroon: Hope that signed Cameroon-EU VPA will begin end to illegal logging

After 31 months of negotiations and waiting, early May, saw representatives from Cameroon and the European Union (EU) sign a trade agreement that aims to ensure Cameroonian timber is legal when sold on the domestic market or exported to the EU and other countries. Both parties and Non-Governmental Organisations from Europe and Cameroon believe that, if implemented properly, this VPA (Voluntary Partnership Agreement – part of the EU's Action Plan on Illegal Logging) could spell the end of illegal logging in Cameroon.

“One of the strengths of this agreement lies in the fact that it clearly identifies the information that must be publicly disclosed, thereby providing a tool to improve transparency and governance in the forest sector”, said Symphorien AZANTSA, the Coordinator of the local NGO platform monitoring the development of the VPA in Cameroon.

The level of civil society involvement in this process was unprecedented and has led to strong written commitments from the government to make information publicly available; continue independent monitoring of the forest sector; carry out reform of the legal framework applicable to the forest sector; and include civil society in the implementation of the agreement.

Civil society believes that the ultimate failure of success

of this agreement will depend on the continuation of this inclusive process. Rodrigue NGONZO of FODER (Forêts et Développement Rural) notes that: “Although we’ve seen very positive changes in areas such as participation of civil society, to succeed in improving forest governance we need to ensure that all governmental and non-governmental stakeholders stay on board and jointly find ways forward. Changes must not be linked to those individuals that have participated in the process, but permeate the Cameroonian forest system.”

A key objective of the agreement is to ensure recognition and strengthening of the rights of forest communities. Local citizens in timber producing countries suffer the most from corrupt regimes and unjust legal systems that exclude them from forest-related benefits. The VPA has done a good job of reforming the legal framework, but as Iola LEAL from the European NGO FERN notes, new policies will have to be duly implemented: “This is the third VPA to be signed in Africa after Ghana (2008) and Congo (2009). Like the other two, the negotiation process has shown how well the Commission and country governments can work together. We must remember however that forests benefit from good implementation of good policies, not good policies alone.”

www.fern.org

USA: Obama administration extends roadless moratorium

The Obama administration has extended for another year the moratorium on most logging and mining in millions of acres of remote and rugged backcountry sections of national forests. Agriculture Secretary Tom Vilsack said from Washington, D.C., he wants to continue to give decisions on projects in roadless areas a higher level of scrutiny while waiting for federal courts to resolve the legal issues. The idea of preserving roadless areas for wildlife habitat and clean water came out of the Clinton administration. The Bush administration tried to open them up to more logging and mining by giving states control.

Conservation groups and the timber industry both welcomed the moratorium due to the continued questions over the legal standing of the policy. Once those are resolved, conservationists would like to see continued protections for roadless areas, while the timber industry wants more thinning projects to reduce wildfire danger and insect infestations.

National forests in 39 states have a total of 58.5 million acres of roadless areas that have been formally placed on an inventory. Historically, they were not logged or mined due to their remote and rugged geography. But the land became a battleground between conservation groups and the timber industry during the 1990s, when national forest logging was cut back to protect fish and wildlife such as the northern spotted owl and salmon.

The moratorium does not apply in Idaho, which developed its own roadless rule during the Bush administration. Colorado

has submitted a roadless plan that has yet to be approved. “The roadless rule stands to this day as the most significant forest conservation measure to happen in our lifetimes,” said Marty Hayden, legislative director for Earthjustice. “You’ve got something on the order of 60 million Americans whose water literally begins in our national forests, and most of that water begins in roadless areas.”

Jane Danowitz, director of the public lands program at the Pew Environment Group, said the extension of the moratorium was good news, and pointed out the need to reform the 1872 Mining Law, a longtime goal of environmental groups.

The 2001 Roadless Rule allows some logging and road construction to reduce wildfire danger, improve forest health and wildlife habitat, and to serve pre-existing mineral leases. Under the old moratorium, Vilsack approved 21 projects in Nevada, Utah, Washington, Colorado, Wyoming, Alaska and Oregon, including thinning to reduce the danger of wildfire, moving a trailhead and campground, drilling methane wells for an existing coal mine and cleaning up a mining operation. There were also 12 mining projects in Nevada, Utah and Washington state that were approved under the 1872 Mining Law, which supersedes the roadless policy.

Vilsack revised a pledge to make all decisions on logging in roadless areas and sent some back to the Forest Service, including a thinning project to reduce fire danger around a lakeside resort on the Umpqua National Forest in Oregon. Tom Partin of the American Forest Resource Council, a timber

industry group, said the moratorium was the only real option Vilsack had, given the continued legal questions. Partin said he hopes the Idaho roadless plan could serve as a template for other states to take more control of their national forests. He added that the timber industry would like to see more projects like the D-Bug timber sale on the Umpqua National Forest in Oregon, which is intended to reduce the threat of fire in roadless areas surrounding the Diamond Lake resort.

Conservation groups have objected that the project allows

commercial logging of big trees in the name of reducing fire danger. The Bush administration had exempted Alaska's Tongass National Forest from the roadless rule, but this week the Forests Service said it would move logging projects away from the old growth forests in roadless areas and focus on areas that have already been logged.

www.washingtonexaminer.com

Global: Agreement on financing and quick-start measures to protect rainforest

At the end of May in Oslo, Heads of State and Government, ministers and other representatives from some fifty countries concluded an agreement on reducing greenhouse gas emissions from deforestation. Around \$4.5 billion has been pledged for the period 2010-2012 to support measures to reduce deforestation and forest degradation in developing countries.

His Royal Highness The Prince of Wales gave a keynote speech following an introduction by the co-chairs of the meeting, Prime Minister of Norway, Jens Stoltenberg and President of Indonesia, Susilo Bambang Yudhoyono. Both co-chairs were kind enough to recognise that the Prince's work had made a significant contribution to the successful outcome of the REDD+ finance programme. Particular reference was made by them and other Heads of State to the meeting His Royal Highness hosted at St James Palace in April 2009 and the work of the PRP in bringing the forest agenda to the attention of world leaders.

The global forest partnership that was established in Oslo marks the start of closer global cooperation on reducing deforestation and forest degradation in developing countries. The partnership will support and contribute to the UNFCCC process. It will also promote transparency around the financing of existing and new international initiatives to reduce deforestation and degradation of tropical forests.

Partners to the agreement have expressed their willingness to scale-up financing substantially after 2012 provided that sufficient emission reductions are achieved. Agreement has been reached on important principles including; support for capacity building and performance-based payments tailored to individual national circumstance, full transparency and improved coordination of funded activities and the involvement of representatives of relevant stakeholders, including indigenous peoples and the private sector. The partnership programme will be led by two co-chairs; one from a rainforest nation and one from a donor country, and in the first instance this will be respectively PNG and Japan, followed by Brazil and France. The World Bank and U.N. will act as secretariat.

While this involves less money and fewer structural details

than suggested in our Emergency Package proposal or the IWG-IFR report, it is an important and significant first step, taken collectively by the nations involved. Civil society and the NGO community will be watching closely to see that the money materialises and is spent in such a way that it achieves a material reduction in the rate of deforestation.

The celebration of this milestone in international cooperation was preceded by an equally important announcement of an agreement between Norway and Indonesia whereby Norway would pay \$1 billion over five years for planned reductions in deforestation. This agreement compliments the similar arrangements, mentioned in our previous emails, which Norway has made with Brazil and Guyana, whereby a series of annual payments will be made if pre-agreed targets are met.

It now remains for the REDD+ Partnership Agreement, which you can find along with the speeches and other relevant documents on the conference website, to set in motion a process that will achieve similar progress with the other rainforest nations that have agreed to participate. This will provide tremendous impetus to the discussions around REDD in the lead up to the next UNFCCC COP, which is being hosted by Mexico in Cancun in December.

The PRP will now maintain a watching brief as the Governments and NGOs take the process forward. However, we are continuing to work with the public, private and NGO sectors to ensure that agriculture and its relationship with deforestation is maintained as a focus during the implementation of the Partnership Agreement. Our programme on these issues will be linked into our broader work being undertaken by the Prince's Charities' International Sustainability Unit (of which the PRP is a part) to help facilitate sustainable agriculture and sustainable fisheries' management including innovative financial mechanisms to support them.

Our continued work with the public, private and NGO sectors aims to help build consensus on how to develop durable solutions which will underpin the mechanisms required to meet the challenges of climate change and natural resource depletion.

www.rainforestsos.org

UK: University told to hand over tree data

Queen's University in Belfast has been told by the Information Commissioner to hand over 40 years of research data on tree rings, used for climate research. Douglas Keenan, from London, had asked for the information in 2007 under the Freedom of Information Act. Mr Keenan is well-known for his questioning of scientists who propose a human cause for climate change.

Queen's University refused his request saying it was too expensive, but it is now considering its position. The university claimed that as the information was unfinished, had intellectual property rights and was commercially confidential information, it did not have to pass it on. After a series of counter claims from Mr Keenan and the intervention of the Information Commissioner, Queen's have now been told that they could be in contempt of court if they do not hand the data over.

In his legal decision, the commissioner said that Queen's had failed in its procedural requirements and had wrongly used legal exemptions to withhold the requested information. Mr Keenan, who hopes to use the data to reconstruct temperatures

during the Medieval Warm period, said "this has taken three years, but it is worth it. "It is an important victory for FoI on research data," he said.

Tree ring data is used by climate scientists to study historical climate information. BBC environment correspondent Richard Black said Mr Keenan's victory has a wider context. "This is the latest development in an on-going process that has seen 'climate sceptics' attempting to obtain raw data and documentation on methodologies from researchers, especially those working to understand the climate of the past," he explained. "The sceptics' contention is that academics have, through error or will, mis-represented Earth's temperature record so as to portray a picture of a warming planet. "The on-going series of reviews into climate science at the University of East Anglia - the so-called 'ClimateGate' affair - has concluded that scientists ought to have been more open with data than has typically been the case."

news.bbc.co.uk

Global: Urban trees help 'migrating birds'

US researchers found that birds used the patches of greenery to rest and refuel in the middle of their journey between winter and breeding sites. The scientists gathered the data by fitting tiny tags to thrushes, which recorded the birds' movements. Writing in the journal *Landscape Ecology*, they added the findings were important because the world was becoming increasingly urbanised.

"With the expansion of urban areas worldwide, migrating songbirds increasingly encounter fragmented landscapes where habitat patches are embedded in an urban matrix," wrote co-authors Stephen Matthews and Paul Rodewald, landscape ecologists at Ohio State University in the US. "Yet, how migrating birds respond to urbanisation is poorly understood."

In order to learn more, the pair attached small tags to more than 100 Swainson's thrushes (*Catharus ustulatus*) and managed to gather data on the movements of 91 birds during the four-year study. "The tags provided us with a unique data-set on migration during a stopover," Dr Matthews told BBC News. "We were able to record how long the birds were staying, and we found that it was not necessarily the forest size that was influencing the birds. "Instead, they were responding to internal factors, such as [the amount of] fat reserves they had."

He added that the importance of the urban tree cover was highlighted when they examined the area the birds were using to forage for food. "We started to see the importance of these smaller forest patches. "The birds ability to search around was limited by the extent of these forested areas."

The study examined seven urban forests, the smallest of

which was an arboretum that covered less than one hectare. "It seemed that the birds were able to utilise these small forest patches during their stopover," Dr Matthews observed. "In five of the sites, the birds never left the forest patch... and were not exploring in folks' backyards."

The team collected the data by using radio-transmitter tags. "The tags were very small, weighing an average of 0.66g, and we glued them to the back feathers of the birds using a very mild adhesive," he explained. "The battery life only lasted a couple of weeks, so the transmitter just fell off after a short while." Dr Matthews said the tiny tags emitted a signal that they could pick up via a hand-held receiver and record the birds' locations.

"We recorded the GPS location, and then we would go back and do the analysis [of the birds' movements] later. It would have been nice if it was all automated, but there was a little bit of fieldwork involved. The researchers said that migration had been identified as a critical period in the annual cycle of migratory birds.

"Within migration, land birds spend up to 90% of their time resting and regaining energy at stopover sites, making habitat a key component," they explained. "This information is necessary to evaluate the conservation importance of urban habitats for stopover migrants. These findings suggest that remnant forests within urban areas have conservation value for Swainson's thrushes and, potentially, other migrant land birds," Professor Rodewald said. "Obviously, larger forest patches are better, but even smaller ones are worth saving."

news.bbc.co.uk

U.S. climate bill backs forest offsets

A compromise U.S. climate bill unveiled in May will allow between 500 million and up to one billion carbon offsets into an emissions trading scheme aimed at cutting U.S. greenhouse gas pollution. The bill, called the American Power Act, backs efforts to fight deforestation in developing countries and to allow offsets from projects that save forests from being chopped down, preserve peat lands and rehabilitate forests. The United States backs a U.N. scheme called reducing emissions from deforestation and degradation (REDD) that could usher in a global trade in carbon offsets from forest preservation projects potentially worth billions of dollars a year.

Following are some key points in the Act relating to avoiding deforestation.

- Scheme Administrator will, not later than two years after the enactment of the legislation, establish an assistance programme to drive reductions in greenhouse gas emissions from deforestation in poor nations.

- The aims of the programme are to achieve emissions reductions of at least 720 million tons of carbon dioxide-equivalent in 2020, a cumulative amount of at least six billion tons of CO₂ equivalent by end-2025, and additional emissions reductions in subsequent years.

- It would also aim to help poorer nations build the capacity to reduce deforestation at a national level, preserve existing forests, improve measurement, reporting and verification of efforts to fight deforestation and illegal logging. Steps to

prevent forest clearance that might simply be pushed into another location is another focus.

- The Act reinforces it is U.S. policy that climate change is a potentially significant national and global security threat that is likely to exacerbate competition and conflict over land, water and other resources.

Protecting Americans from the impacts of rising greenhouse gas emissions meant fighting deforestation and its causes in poorer nations is a key policy objective, it says.

- Projects eligible should improve the livelihoods of forest communities, maintain natural biodiversity and carbon storage capacity of forests, promote native forests and ecosystems and give due regard to the rights of local communities and indigenous peoples.

Projects should also be transparent in the sharing of profits and benefits from the sale of offset credits with local and indigenous communities.

- A key requirement is establishing a national deforestation baseline. This must take into account the average annual historical deforestation rates of the country during a period of at least 5 years, the drivers of deforestation and other factors.

The baseline must also establish a trajectory that would result in zero net-deforestation by not later than 20 years after the date on which a national deforestation baseline has been established.

www.reuters.com

India: Green India Mission to double afforestation efforts by 2020

The Green India Mission, part of India's plan to fight climate change, proposed to double the area being taken up for afforestation and eco-restoration over the next decade.

The first draft of the Mission projects an ambitious target of 20 million hectares by 2020, at a cost of Rs. 44,000 crore. Public consultations will be undertaken across the country from June 11, following which the draft will be finalised.

Earlier, the Prime Minister had spoken of undertaking afforestation in 6 million hectares of degraded forest land as part of the Mission, which is one of the eight Missions of the National Action Plan on Climate Change. (About 10 million hectares would anyway be treated by the Forest department and others without the Mission's interventions).

The more ambitious target in this draft, however, emphasises a holistic approach to greening, making it clear that the project will not just be limited to trees and plantations, but would focus on restoring diverse ecosystems. It would not only strive to restore degraded forests, but also protect and enhance relatively dense forests.

The nine sub-missions include, separate targets for moderately dense forests, degraded forests, degraded scrub and grasslands, mangroves, wetlands, urban forest lands

and institutional areas with tree cover, degraded and fallow agricultural land, wildlife corridors, more efficient stoves and alternative energy devices for better fuel wood use, and enhanced livelihoods for communities dependent on biomass and non-timber forest produce. The Mission envisages a key role for local communities and includes a four-level monitoring framework.

The new and restored forest areas will act as a carbon sink. They are expected to absorb an additional 43 million tonnes of green house gases every year. This means that India's forests will be able to absorb 6.35 per cent of the country's annual emissions by 2020. The draft is rather vague on the source of funding, merely saying that the "resources will be mobilised as additionality from the Planning Commission." It adds that "the deficit, if any, will be taken care of by developing projects for seeking assistance from international funding agencies, UN organisation, etc."

Last month, Union Minister of State for Environment and Forests Jairam Ramesh had indicated that the government was hunting for funds for the Mission, as "the money collected under the compensatory afforestation scheme would now be transferred to the States and so would not be available."

thehindu.com

India: Afforestation drive in UP

The forest department in Uttar Pradesh's Kushinagar District has begun a drive to plant saplings on a large scale in a bid to prevent deforestation. "Global warming is increasing, pollution is increasing, so, to stop these things to increase, we are motivating the forest department and even the common people to plant more and more trees," said R P Singh, divisional forest officer (DFO).

The forest department is motivating other organisations to spend one percent of their budget on tree plantation, as the district accounts for just two percent of the total forest cover in

the state. "We are planting saplings on the road sides, near the canals. We are putting our best effort to plant more saplings to increase the greenery," said Mukhundu, a gardener.

The forest department is taking help from the non-governmental organisations in the plantation drive. According to the State of Forest Report 2009, the country has only 21.02 percent of its geographical area under forest cover. This is targeted to grow to 33 percent by 2012.

timesofindia.indiatimes.com

Madagascar: Shaky rule threatens trees

Exploiting a political crisis, Malagasy timber barons are robbing this island nation of its sylvan heritage, illegally cutting down scarce species of rosewood trees in poorly protected national parks and exporting most of the valuable logs to China. For a decade or more, this illicit trade existed on a small scale. But in the past year, it has increased at least 25-fold, according to environmental groups that have been tracking the outgoing shipments. They estimate the value of trees felled this past year at \$167 million or more.

This accelerated plunder of the rainforest coincided with a military coup in March 2009. Andry Rajoelina, the mayor of Antananarivo, Madagascar's capital, was installed as president, and he has since led a weakened and tottering government that is unable — and perhaps unwilling — to stop the trafficking. "The government does nothing because it shares in the money," said Ndranto Razakamanarina, president of an association of Malagasy environmental groups and a policy officer with the World Wildlife Fund. "Many of the ministers think they'll be in office only three or six months, so they decide to make money while they can. The timber mafia is corrupt, the ministers are corrupt."

Madagascar, the world's fourth largest island, is a place of extraordinary botanical abundance, with perhaps 14,000 species of plants, 90 percent of which exist nowhere else on earth. Saving the rosewood trees is now an international cause. Environmentalists check the manifests of outbound vessels, calculate the amount of timber in each container, and try to embarrass the owners of the wood and the participating shipping companies.

Repeatedly, the government has announced new policies to halt the trade. "The exporters are strong, but so are we," Prime Minister Camille Vital said in a recent interview. "Just last week, we arrested 52 of the people involved." But the men in custody, as the prime minister admitted, were among the hundreds of impoverished villagers who earn \$2.50 a day to trek into the far reaches of the rainforest. Two men can chop down even a thick, sturdy rosewood tree in an hour. Then it requires teams of 15 or 30 or 50 to pull the logs through the muddy up-and-down of the vine-covered woodland.

Last month, the government announced yet another decree to protect the affected forests of the northeast. The area includes two huge World Heritage sites: Marojejy National Park, where the rainforest descends into valleys of dense evergreens and rises into rocky-crested mountains; and Masoala National Park,

on a broad peninsula where a high slope of virgin rainforest plunges to within feet of an unspoiled shore.

But the American ambassador, R. Niels Marquardt, dismissed the new regulations as "one big loophole." Lisa Gaylord, the country director for the Wildlife Conservation Society, said: "Whatever the law, this government always finds a way to grant an exception." In the past, the government has sometimes seized illegal timber and fined the owners. But the penalties were much less than the value of the rosewood, and once the assessments were paid, the logs were authorized for export. "The rosewood is piled up near the rivers; no one is trying to hide anything," said Guy Suzon Ramangason, the director general of the organization that manages many of the parks. "Chinese businessmen pay the exporters and they in turn pay off the controllers like the police and the government."

Malagasy rosewood — reddish and superbly grained — is among the world's most sought-after timber, especially since Asian sources of similar trees have been depleted. In China, the finished wood is primarily used to make replicas of antique furniture and musical instruments, some for export.

Here in Maroantsetra, a dusty town not far from Masoala National Park, the evidence of the assault on the forest is an open secret easily shared along the Antenambalana River. Some 500 rosewood logs lay stacked behind a padlocked bamboo fence in a storage lot surrounded by fields of corn and manioc. The inquisitive were shooed away by five young guards who lolled in the shade of a litchi tree. "It would be easy for me to die if I gave information to someone from the outside," said one of the gatekeepers in a firm but apologetic voice.

The trees were transported here by boat and metal canoe — or simply strapped atop an impromptu raft of other, more buoyant logs. The river also sits on Antongil Bay, and across the choppy water are coastal villages on the fringes of the Masoala forest. Many of the families owned land within what is now the national park, and say they were falsely promised payment for the appropriated property.

They feel a reverence for nature — and also an entitlement. "God gave us the forest so that we could take what we need," said Francel, a 23-year-old man who uses only one name. "My ancestors are not angry. There are still many trees in the forest."

Francel, like others who carry axes into the mountains, finds it curious that rosewood is so valued. Other trees yield food — papaya, coconut, jackfruit. But so much rosewood has been cut down that logging it gets harder by the month, villagers said. Now it can take two or three days to find a

rosewood tree, even for men who have roamed the forest since childhood. They know how to open a trail with machetes and which plants have antiseptic powers.

For rosewood excursions, the teams of men carry rice and cooking utensils. When they can, they flavor their meals with meat — eels taken from the springs, fruit bats caught with nets, even the highly endangered species of lemurs that vault through the trees.

Dragging away the timber is back-breaking labor. Men yank hard on the nylon ropes, rest, then yank again. “Rocks

along the way can damage the wood, and you must be careful not to let the logs slide into a valley,” said Thomas Kiloka, 55, a sinewy grandfather who joins the loggers as a porter.

He allowed that cutting down rosewood was against the law but said it was better for a poor man to take a tree from the woods than steal money from someone’s home. Besides, there was little chance of being caught. “It is a big forest,” he said.

www.nytimes.com

UK: Conker canker decoded

Scientists from Britain’s Forest Research have played a key role in decoding the genome of a bacterium that is threatening horse chestnut trees, a much loved feature of many of Britain’s historic landscapes.

The horse chestnut has become an iconic sight in Britain since its introduction in the 1500s, but in 2002 a new, lethal pathogen appeared. The pathogen is a bacterium called *Pseudomonas syringae* pathovar *aesculi* (Pae), which causes cankers, or lesions, which bleed like open sores and in severe cases can kill large, mature horse chestnut trees within one or two seasons. A recent Forestry Commission survey found more than 70 per cent of the trees surveyed in some regions of Britain showed symptoms that indicated or might indicate bleeding canker.

Now a partnership of scientists from three research establishments, including Forest Research, has decoded the bacterium’s genome, unlocking information that can help to inform advice on managing the disease. Forest Research, the scientific research arm of the Forestry Commission, isolated and led the sequencing of the main British strain of Pae used in the study.

“Detecting the origin of Pae is important from a biosecurity perspective,” said Dr Sarah Green, a tree pathologist with Forest Research. “There has been an unprecedented rise in invasive plant diseases, possibly linked to the rise in international travel and in the global plant trade.

“We now have the first clues to the evolutionary origin of the disease and to its ability to spread so fast. Pae might have been accidentally introduced to Europe through importation in the plant trade. We need to prevent it from being introduced to new geographical areas such as North America.”

Dr David Studholme, who led the analyses of the DNA sequences at The Sainsbury Laboratory in Norwich, England, added, “Comparing the genomes of British strains of the bacterium has shown us they are very similar and probably originated from a single introduction into the UK within the

past few years.”

Before the European epidemic, the only reported case of Pae was in India. A similar strain infects the Indian horse chestnut, but causes only minor lesions in the leaves. The strains that emerged in Europe appear to be more aggressive and attack the woody trunk and branches.

“This pathogen spread quickly through Western Europe and Britain, and the information from the sequencing will help us discover how it is dispersed,” said Dr Rob Jackson from England’s University of Reading. “It may be that it can cause precipitation, so it is swept into the atmosphere before being rained back down in new locations, or it may be carried by some kind of vector such as insects.”

The success of the pathogen might be helped by a cluster of genes that help it to acquire iron, an essential nutrient for virulent bacteria. Pae also has an unusual cluster of genes which might be involved in the degradation of cell wall compounds found in the woody parts of the tree. A plant will normally produce nitric oxide as part of its defence mechanism, but Pae might have the ability to inhibit this response via two genes identified by the scientists.

The differences between the Indian and British strains give the first clues to its virulence on European horse chestnut. The British strains contain additional genes that enable it to live off the sucrose found in the tree sap.

The genome sequence will allow scientists to determine which genes might be necessary for infection of a tree host so they can be targeted to manage the disease.

“Emerging human and animal diseases are routinely sequenced, and this research shows the usefulness of doing the same for plant pathogens,” said Dr Studholme. “We can quickly generate large amounts of genetic information on emerging plant diseases that is valuable for combating current and future biosecurity threats.”

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USA tops deforestation league

A new paper published in the Proceedings of the National Academy of Sciences reveals that from 2000 to 2005 the United States lost a greater proportion of its forest cover (not counting re-growth) than any other nation, while Canada and Brazil were the leading countries in the total area of lost forest cover. According to the paper, large-scale logging mainly in southeastern states, but also in the western U.S. and in the

upper Midwest, was a major driver of U.S. forest cover loss along with wildfires.

The paper, entitled *Quantification of global gross forest cover loss*, was written by Matthew C. Hansen, Stephen V. Stehman, and Peter V. Potapov and can be downloaded at <http://www.pnas.org/content/early/2010/04/07/0912668107>

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The CFA

The Commonwealth Forestry Association

The Commonwealth Forestry Association (CFA) is the world's longest established international forestry organization, tracing its history back to 1921. Today it unites foresters, scientists, students, NGOs and policy makers throughout the world in a unique international network that provides professional support to its members and forms a key element of civil society.

The CFA supports the professional development of those working with trees and forests by promoting the conservation and sustainable management of the world's forests and the contribution they make to peoples' livelihoods.

The CFA is managed on behalf of the membership by the Governing Council, which is composed of representatives from all countries who have members. It is run on a day-to-day basis by a small UK-based Secretariat consisting of the Chair, Vice-Chair, Technical Director, Membership Secretary and Finance Manager. The Secretariat is advised by committees for Finance and General Purposes, and Publications. The Governing Council appoints one member from each region, the Regional Coordinators, to work closely with the Secretariat in the Executive Committee to implement the plans of the CFA in accordance with the overall objectives.

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