CFA Newsletter

No.34 September 2006 ISSN 1463-3868

Contents:

CFA Newsletter
is the newsletter of the
Commonwealth Forestry Association

Editor: Alan Pottinger

Contact: Crib, Dinchope, Craven Arms, Shropshire SY7 9JJ, UK

Tel: 00 44 (0) 1588 67 28 68

Email: cfa@cfa-international.org

Web: www.cfa-international.org

The views expressed are not necessarily those of the CFA.

Young Ugandan forester wins CFA Essay Competition

CFA essay competition winner Celia Nalwadda receives part of her prize from Paul Jacovelli, Chief Techncial Advisor to the SPGS. Standing with her, from left to right, are Francis Musinguzi (3rd place) and runner-up Frank Mukunya.

Ugandan foresters have been busy writing their thoughts on their forests in the inaugural CFA essay competition, sponsored by Earthscan Publishers, and the Uganda Sawlog Production Grant Scheme (SPGS). Over 30 entries from throughout the sector were judged by Associate Professor Assoc. Prof. Gombya Ssembajjwe (Makerere University) and Paul Jacovelli (Chief Technical Advisor to the SPGS) and reflected the large number of challenges facing foresters in Uganda.

Essays discussed issues such as the role of civil society in forestry, wildlife management, and the educational needs of the sector. The winning essay, by Celia Nalwadda, who graduated from Makerere University with B.Sc. (Hons) Forestry in 2004 and has been working for the Wetlands Inspection Division in the Ministry of Water & Environment, titled FORESTRY IN UGANDA: THE ROLE OF THE PRIVATE SECTOR highlights Uganda's need to invest in plantation forestry. It examines the various ways in which the private sector can participate, the obstacles they face and steps being taken by the Government to overcome them. Celia was recently admitted to Makerere to study for an M.Sc. in Agroforestry

Prof Gombya Ssembajjwe said *"We were impressed by the overall standard of entrants but Celia's essay stood out for its balanced view way the commercial forest sector can serve the country as a whole"*. Mr Jacovelli agreed adding *"Uganda has already done a lot to fulfil its tremendous potential to become a focal point for plantation forestry in Africa and young foresters like Celia can do a great deal to take our work forward"*.

The internationally acclaimed forestry

publishers Earthscan generously donated books to the winner, runner up Frank Mukunya, and third place Francis Musinguzi, all of whom also win two years of membership to the CFA. Celia's essay is published below, and also features on the CFA website at www.cfa-international.org

This essay competition was carried out in conjunction with our Regional Coordinator for Africa, Ben Chikamai, and Chair of CFA Uganda, Fred Babweteera.

Forestry in Uganda: The role of the private sector

By **Celia Nalwadda**

The European Environment Agency defines plantation forestry as the establishment by planting and/or seeding of trees in the process of afforestation or reforestation. Trees are typically grown and managed as even-aged monoculture stands at regular spacing over a large area for timber or pole production. The private sector is defined as that part of a nation's economy that is not controlled by the Government: households, civil societies and donor agencies.

There are 5 million hectares of forest land in Uganda, of which less than 1% is plantation yet, interestingly, Uganda has excellent conditions for developing the forestry resource for commercial use. Most of the land in the country is suitable for tree plantations, is well watered with an annual rainfall range of 750-2000mm, we have a rich labour resource base and an increasing demand for forest products. Despite all this, Uganda is currently in a near crisis situation with regards to even being able to meet the domestic market demand for general-purpose timber.

The existing plantation were established by the Government the late 1970's and early 1980's, with about 13, 000 ha of mainly *Pinus caribaea* var. *hondurensis* and to a lesser extent *P. patula*, *P. oocarpa* and *Eucalyptus grandis*. These plantations have been harvested since 1995 and the 2,000 ha or so left are in poor state and over mature. There has been no plantation establishment for the last the past 30 years with the result that there are currently 4,000 ha of plantations below 15 years of age, most having been established since 2001. The Government through the National Forestry Authority (NFA) planted 1,000 in 2004 / 2005 and is aiming for 1,200ha in 2005/2006.

The private sector was, until recently, not actively involved in plantation forestry. A few private woodlots are scattered all over the country, some funded through NORAD's Peri-Urban Scheme. Some tea and tobacco processing companies (e.g. James Finlay and British American Tobacco) have also established private plantations to meet their own fuel demands. The private sector, however, only seriously started planting in 2003, stimulated by the Sawlog Production Grant Scheme (SPGS) - funded by the European Union (EU), which provides planting grants and technical advice.

Over 3,000 ha have been established to date under the SPGS programme and it is well on track to achieve the 5,000 ha target by 2007. The private sector is currently planting on its own land and also on Central Forestry Reserves leased from the National Forest Autority (NFA). However, this is not enough to meet the country's projected timber demand which will exceed 1 million m^3 of round wood by 2025. It is estimated that at least 60,000 ha of plantations will be required to meet this target. This projected timber demand can only be met if the efforts of the NFA are complimented by those of the private sector – including:

- Direct establishment of forest plantations.
- Establishment of tree nurseries to supply seedlings for commercial purposes.
- Private companies can assist small scale growers through outgrower schemes.
- Financial institutions can create especially designed credit schemes to meet the unique economic circumstances of private plantation companies. The EU through SPGS programme is already doing this, but other institutions like African Development Bank and the World Bank could come on board as well.
- Private Universities and Technical Colleges can offer specialised training to forestry officers in plantation establishment and management.
- Developments in the field of biotechnology elsewhere can be transferred to Uganda by the private sector. One company is already in the business of promoting fast growing *Eucalyptus* species for electricity poles production.

Although Uganda is making a great effort to lure private sector investment in plantation forestry, several constraints still prevail. There are many characteristics of plantation investment that strongly influence investors making decisions: the most obvious is the long term nature of growing trees, with a very high proportion of expenditure in the early phase and most of the revenue coming in at the end of the rotation (which can be from 10 to 25 years depending on the species and production objectives). This long gestation period adds greatly to the uncertainty and risk of plantation investment. The situation is not made better by:

- **Unrealistic pricing systems that undervalue timber as used until the recent past.**
- **Lack of experienced plantation managers in Uganda.**
- **Poor quality of seed and planting stock for plantation forestry.**
- **Lack of appropriate information.**
- **Technological advancements elsewhere are not being introduced.**
- **Lack of transparency in offering land permits.**
- **Market disincentives for investment.**

These uncertainties and constraints give ample cause to investors to shy away from the plantation sector despite the apparent advantage of investing in plantations (e.g. expected increase in demand for wood products, diversification of investment portfolios, assuring long term supply for down-stream industries and potential profits in the long run). Thus there remain regular calls for assistance in the private sector to enable it play a prominent role in plantation forestry.

The Government of Uganda has proved equal to the task by taking bold steps to encourage private sector investment. Just as good site preparation is important for enhancing tree growth, so too is preparing a favourable policy and administrative foundation for supporting successful plantation development. The Government has done this by:

- Establishment of good governance by enforcing the rule of law and order in Uganda. This encourages private sector by reducing the risk of investment.
- Building infrastructure like transport and communication facilities.
- Liberalisation of the economy by pursuing policies aimed at promoting the growth of market-based economy with less central government involvement.
- Restructuring of the forest sector through formation of the NFA. This has helped to coordinate efforts aimed at plantation development.
- Streamlining issues of land ownership through the constitution of 1995 and the land act of 1997: this clearly defined land as public and private, successfully overcoming ownership disputes and providing security for investors.
- Formulation of complementary and enabling policies and action plans that promote the involvement of the private sector in plantation management. These include: the national forest policy, poverty eradication action plan, and plan for modernisation of agriculture and poverty action fund among others. This approach proved successful in Thailand where the reforestation act of 1992 was specifically designed to encourage the private sector to develop forest plantations. As a result of it, between 1986 and 1997, the area planted with *Eucalyptus* increased from 553,000ha to over 4 million ha (Brown *et. al*, 2003).
- Signing and ratifying global conventions like the Kyoto protocol of 1997, which support plantation establishment.

Although the above efforts are commendable, much more still needs to be done. The Government can offer tax breaks and physical incentives such as seedlings to private plantation companies and there is still a need to move away from over emphasizing the conservation and environmental functions of forestry at the expense of productive ones. It is also essential that economic models for all major types of forest plantations be developed and the information be transferred to the private sector regarding the profitability of investing in plantations and the availability of funding mechanism. Commercial plantation development must also be supported by a focused research and development program with the key issue as supply of improved seed and seedlings/clones.

In conclusion, the private sector is playing a pivotal role in commercial forest plantations in Uganda. The continuity of this trend will depend on the availability of affordable funding for new plantation projects and security of land tenure, among other factors already mentioned.

For further information:

BROWN, C.L. and DURST, P.B. 2003. State of forestry in Asia and the Pacific. RAP publication 2003/22. Bangkok, Food & Agricultural Organisation of the United Nations.

CARLE, J., VOURINEN, P. and DEL LUNGO, A. 2002. Status and trends in global forest plantation development. Forest Product Journal. 52 (7/8): 12-23.

FOSA Country report- Uganda. http://www.fao.org.//docrep/004/act427e.htm

NFA website. www.nfa.org.ug/plantation

SPGS website: www.sawlog.ug

NORAD 1999: Review of the forestry sector in Uganda. Kampala, Uganda.

Uganda Investment Authority 1998: A guide to investing in Uganda

Association News

CFA membership for national forestry associations

The CFA has created a special reduced membership rate for national forestry associations of £25 for developing countries and £100 for developed countries. [This compares with the previous rate of £180 for each, and therefore represents a substantial saving].

Membership at the **National Forestry Associations** level is open to all organisations that have a national objective to encourage interest in the wise management of trees and forests and will entitle all members of that organisation to the benefits of CFA membership - including access to the *International Forestry Review* and *CFA Newsletter*. Please contact cfa@cfa-international.org for membership details.

CFA subscription rates for 2007

The Governing Council have approved the following subscription rates for 2007.

Category		Cost (£)	Membership benefits			
			Membership of CFA	Newsletter (HC)	International Forestry Review (HC)	International Forestry Review online
Student - standard		10	✓	✓		✓
Student - plus		25	✓	✓		✓
Ordinary - standard	Developing country	10	✓	✓		✓
	Developing country	50	✓	✓		✓
Ordinary - plus	Developed country	25	✓	✓	✓	✓
	Developing country	65	✓	✓	✓	✓
Institutional member	Developed country	180	✓	✓	✓	✓
	Developing country	250	✓	✓	✓	✓
Institutional subscriber	Developed country	180*		✓	✓	✓
	Developing country	250		✓	✓	✓
National Forestry Association	Developed country	25	✓	✓	✓	✓
	Developing country	100	✓	✓	✓	✓

HC = hard copy

* Agent discount of 15% applies.

The Governing Council recognises the need to balance our objective of making our services available to as many foresters as possible with that of ensuring that the CFA is run on sound financial principles. As such they are pleased to report that all subscription rates will remain at the same level as the past two years, with the exception of institutional members and subscribers who are being asked to pay an increased amount in order to take account of increasing costs of production and distribution.

All members are respectfully asked to endeavour to pay promptly when the annual renewal form arrives in December as it helps a great deal with our financial management.

Special Feature

The Iwokrama Centre for Rain Forest Conservation and Development: an introduction

The concept of Iwokrama arose during the late 1980s - a time of intense global debate about tropical rain forests. On one hand the developed world expressed concerns about biodiversity loss and global warming. On the other hand, the developing world expressed concerns about foregoing national development in order to conserve tropical forests. In the context of this debate, Guyana stepped forward to offer one million acres of pristine tropical rain forest to a partnership of Commonwealth nations to work together to show how to use tropical rain forests sustainably. The fundamental concept behind Iwokrama was to demonstrate how to use forests to meet development needs while at the same time meeting conservation objectives.

The Iwokrama Centre for Rain Forest Conservation and Development was established by an Act of Parliament in 1996 and became a fully fledged institution in 1998. Even though the Centre is celebrating its tenth anniversary this year it actually commenced operations with adequate funding and full complement of staff in early 2000. The Iwokrama Centre manages the Iwokrama Forest situated in the heart of Guyana and positioned in a high diversity area where the Guiana Shield, Amazonia and the Orinoco basin come together. To the south of the Iwokrama Forest is the extensive seasonally flooded savannah – the Rupununi Wetlands. The Iwokrama Forest and the Rupununi Wetlands represent a global biodiversity value as well as the heartland of the Makushi peoples. Both areas are bisected by the only highway linking Guyana to Brazil and the Tans-Amazonian Highway. This highway is the shortest trading route between Manaus in Brazil and the Atlantic Coast. It carries many threats and opportunities.

Iwokrama has become a global model for collaborative alliances across geographical and social scales. It is an outstanding example of symbiotic partnership between a protected area and local communities; local people are actively involved in

sustainable business development and protected area management. In addition, Iwokrama has built partnerships at national and international levels and acted as a catalyst to improve relationships between local communities and those national and international partners.

The Iwokrama Centre is a governance model for the rest of the world. The Centre is governed by an international Board of Trustees, comprised of local, national, and international representation. Iwokrama is the only international forest research centre that has direct representation of indigenous peoples on its Board. The Center is managed in close collaboration with the indigenous communities whose leaders formed the North Rupununi District Development Board to guide and coordinate development of their people and relations with outside partners. Through collaborative efforts, the Government of Guyana is about give title to Fairview Village, which is inside the Iwokrama Forest.

The North Rupununi Savannahs and Wetlands is the heartland of the Makushi People

A collaborative management agreement between Fairview and Iwokrama International Centre is providing for co-management of the area. This significant step will provide a world example of how indigenous peoples can have tenure and exercise self-determination in managing internationally recognized protected areas.

Iwokrama is now ready to accelerate sustainable business development and is actively searching for new partners who are committed to triple bottom line investments to provide value added niche products and services. Iwokrama's ten years have provided numerous lessons learned that are highly relevant for forest based businesses, businesses wanting to meet their corporate social responsibility, protected area management, and those working at interface between forests, people and poverty.

Iwokrama: the foundations of sustainable businesses

By **Simone Mangal**[1]

Sustainable business development has been in focus since the Rio Conference on Environment and Development in 1992. It has found a commune of owners from corporations such as Alcoa and Shell to small NGOs and indigenous peoples. However, questions remain as to what is a sustainable business and how does one achieve sustainability.

The Iwokrama Programme was established to answer these questions in the context of tropical rain forests. Iwokrama's challenge has been to demonstrate forest-based businesses that are ecologically sustainable and contribute to economic and social development. This article highlights aspects of Iwokrama International Centre's work in getting to this point.

Radio Paiwomak broadcasts to the communities of the NRDDB and Iwokrama

The context

Iwokrama began work toward creating sustainable businesses under difficult circumstances. The local Makushi people were unaware that their ancestral homeland had been offered for international experimentation. There were conflicts over indigenous land rights regarding a proposed national protected area system. Travel to the forest was expensive and difficult and was only possible via a dry season road or by sporadic flights. Communication infrastructure was poor. Local leaders were not in regular contact with each other or outsiders. Participation of stakeholders was a concept that was not widely understood.

Today, a visitor to Iwokrama would be hard-pressed to imagine the way things were only six years ago.

Rights, respect and strategic partnerships

Iwokrama's important first step was identifying and engaging stakeholders in a way that recognized and respected their rights, unique knowledge and skills. Iwokrama also accepted and supported local people's priorities and in turn benefited from their trust, hard work and good faith. Relationships with local people were built across the whole organisation by all staff from the Director to the drivers; leading to a mutual understanding of relevant social, ecological, economic and cultural issues. Through this approach, and a policy to hire local people and build alliances with national agencies, Iwokrama was able to make significant advances in complex areas. Biodiversity research, timber inventories, forest zoning, resource management plans, environmental

[1] *Simone Mangal was a Fellow in Collaborative Management and Community Development at Iwokrama International Centre in 2000-2002.*

An aerial view of the Field Station with construction of the Fred Allicock Building on the far left.

impact assessments and marketing studies were achieved collaboratively. Iwokrama benefited from the unique skills and knowledge of local people and national agencies. These groups, in turn, developed an understanding of Iwokrama and skills in resource management. Joint activities also resulted in direct working relationships between the communities and Government agencies.

Communication, institutional strengthening and capacity building

Iwokrama invested early in communication mechanisms as they were essential to multi-stakeholder planning and informed decision making. The Centre also prioritized the strengthening of stakeholder capacity, which was essential to establishing equal and sustainable partnerships. The Centre helped strengthen the North Rupununi District Development Board (NRDDB), which was formed by local leaders to advance their development interests and interface with outsiders. Early support included such basic but critical things as providing transportation to central meeting places and subsidies to host bi-monthly planning meetings. The NRDDB proactively sought support for additional institutional strengthening and Iwokrama increasingly took on a role of facilitating linkages where possible.

High Frequency radios were installed in each village and the communities set up Guyana's only community based radio station - Radio Paiwomak. From 1999-2002, Iwokrama and the NRDDB also implemented a Community Environmental Workers (CEW) Programme. CEWs from each village were trained and involved in education, communicating between NRDDB and households, assisting with socio-ecological research and fostering village resource management. In a very short time a high level of ownership and understanding developed between villages and Iwokrama. Today many CEWs have taken up leadership roles in the NRDDB, as Rangers or Iwokrama staff.

Local communication systems, institutions and capacities developed across all sectors are now an essential ingredient for operating sustainable businesses.

Joint decision making, benefit sharing and intellectual property rights

A premise of Iwokrama is that business is not sustainable if it is not beneficial to the people that live in, or with, the forest resource. To be sustainable benefits from a business must be distributed fairly without disenfranchisement or exclusion. Concepts of benefit sharing and equity were addressed openly in multi-stakeholder contexts to manage expectations and secure agreements. In 2000 Iwokrama organised an *International Sustainable Forest-Based Business Partnerships Workshop* involving leaders of the local communities, the Iwokrama's Board, national agencies, private sector representatives and Iwokrama staff to discuss and negotiate principles for business development. An agreement on guiding principles for business development resulted and was adopted by the International Board of Trustees.

In 2001 the Centre collaboratively hosted a similar international initiative: *Development as If Equity Mattered* with a workshop on *Benefit Sharing and Intellectual Property Rights*. The results have guided the Centre in developing business arrangements such as the agreement with the private sector and local communities for the management of the Iwokrama

Forest Canopy Walkway and, more recently, for benefit sharing in Iwokrama Timber Inc., a joint venture company established to harvest timber. Iwokrama also worked with local communities and the Government to develop Intellectual Property Rights and Access and Benefit Sharing policies and agreements that ensure local and national equity. As a result of these and other initiatives, partners in sustainable business have a clear framework to work with and do not have to invest in complex negotiations with multiple stakeholders.

Rangers are an integral part of all ecotourism and training activities in the Iwokrama Forest.

Proving success – indicators of sustainable businesses

It is easier to claim that one's business is sustainable and contributes positively to local development than it is to get it right and to prove this. Assumptions such as more income is always better do not always apply. This is particularly the case when working with indigenous peoples who are socially distinct and have unique value systems. Recognizing the importance of an empirical and contextual approach, Iwokrama collaborated with the local communities and other partners to develop cost-effective methodologies for explicitly examining tradeoffs between culture, social, economic and ecological parameters. As a result clearly defined, measurable indicators have been identified to guide planning, monitoring of businesses and measures of success.

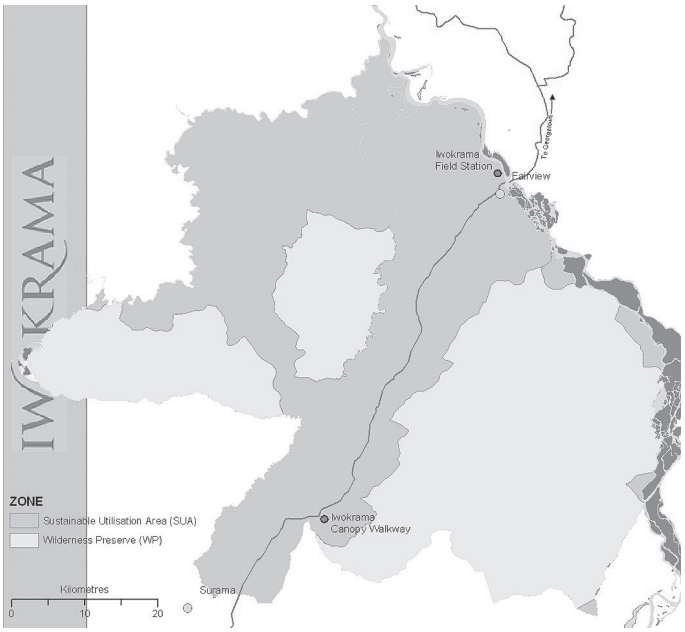
The path of sustainable businesses

Iwokrama has established a solid foundation for its current businesses and for facilitating new investors interested in sustainable businesses. The path to, and of, sustainable businesses is dynamic. It requires vigilance in assessing impact in changing contexts and in responding appropriately. Iwokrama's experience and the lessons learned about human relationships, capacity building, partnerships and practical operating mechanisms make it a ready partner for those interested in practicing sustainable business in Iwokrama and elsewhere.

Iwokrama to attain forest certification of 370,000 ha of tropical rain forests

The Iwokrama International Centre for Rain Forest Conservation and Development has conducted extensive research and planning, and developed a system for biodiversity conservation and natural resource management of the Iwokrama Forest. In this period, the Centre engaged key local, national and international stakeholders in the planning and implementation of sustainable conservation businesses within the Sustainable Utilisation Area (SUA). The process of testing and authenticating the social, economic and environmental guiding principles of timber harvesting in the SUA has now commenced with pre-harvesting work in preparation of timber harvesting in the latter part of 2006.

The Centre is following the principles of the Forest



The Iwokrama Forest is divided into the Wilderness Preserve and theSustainable Utilization Area. Map prepared before July 1st 2006.

Stewardship Council (FSC) in the design of its operations, in an attempt to provide a practical model for timber harvesting for forest enterprises both locally and internationally, and to ensure that it is positioned to access high value niche markets for tropical hardwoods, were they to become available. Iwokrama is also cognisant of the high degree of interest and expectation of transparency and verification of sustainable forest management practices of Iwokrama by the local and international community, given its unique mandate.

The application of the FSC system for forest certification requires stringent environmental, social and economic standards. Over the years, Iwokrama has learnt many lessons and has accumulated vast knowledge

and experiences in community participatory processes, meaningful networking and partnerships through trust building and learning by doing. This has translated into Iwokrama becoming the leading institution in Guyana and the Region in collaborative management of natural resources.

There are a number of features of the Iwokrama sustainable timber harvesting business that sets places its at the frontline of the social requirements for certification. The Cenre is particularly strong on the social principles of the FSC, as demonstrated for example in the owernship rights that Fair View Village enjoy 6% of the 371,000ha Iwokrama Forest. Iwokrama and Fair View Village have finalised a collaborative management agreement that sets out the framework by which the two parties would collaborate in the management of natural resource and benefit sharing. Iwokrama has also signed a landmark collaborative management agreement with the North Rupununi District Development Board (NRDDB) which represents the 16 communities of the North Rupununi Wetlands. Also unique, is the development of a model governance system between the Centre and the local communities for commercially sustainable businesses within the Iwokrama Forest. Iwokrama is initiating a compensatory mechanism for traditional ecological knowledge outlined in the Centre's draft policy on intellectual property rights, access to genetic resources and benefit sharing. The Centre has existing and regular institutional policies relating to Occupation Safety and Health and adherence to ILO conventions, workers' insurance schemes, archaeological procedures for identification of such sites, specialised training for the Iwokrama Forest Rangers, and monitoring and evaluation mechanisms.

The North Rupununi Wetlands is home to 16 communities.

By blending traditional knowledge with new technologies, Iwokrama ensure that we as well as the next generation reap the benefits of these partnerships.

Environmental responsibilities have been gradually eased into the certification requirements and as expected Iwokrama significantly surpasses these indicators. Iwokrama has already set aside 50% of the forest as a Wilderness Preserve in addition to the recommended buffer zones, community conservation sites and tourism sites during the zoning process. The Centre has exceeded the 10% recommended conservation zones for certification, and in keeping with national recommendations, has classified the entire Iwokrama Forest as a High Conservation Value Forests (HCVF). The Iwokrama Forest Rangers are trained in Reduced Impact Logging (RIL) by the Forestry Training Centre Inc. (FTCI) funded by ITTO and WWF-Guianas. The Centre has rich and extensive research and data collections on floral and faunal surveys and studies of the Iwokrama Forest. This impressive quantity and quality of information has resulted in detailed and simplified biophysical monitoring protocols. These monitoring tools and indicators were developed using both scientific and traditional ecological knowledge. The detailed level of precision in the 100% timber stocking inventory of the Iwokrama Forest allows for excellent manipulation of data for planning of roads, skid trails and log markets etc. So far in the planning stage, all major creeks and waterways have been avoided, as cost effective and alternative routes were found by careful local planners. Since most of the Iwokrama planners are from the local communities application of the precautionary and least-impact principles are facile, as they (the planners) would be most responsive to their community needs.

In the first three years of the sustainable timber business, Iwokrama will work with a Joint Venture partner to harvest the timber resources from the Iwokrama Forest. It is hoped that this will eventually culminate into more sound down stream processing technologies being applied and thereby steadily increasing and growing the profits accruing to shareholding partners, including communities and Iwokrama. Iwokrama has developed a comprehensive 5-year business plan to address and chart the future marketing and business potentials and is also working with the local

communities for harvesting and marketing the non-timber forest products from the forest. There are many challenges for the Centre including newness to the sustainable conservation businesses with communities and the un-chartered nature of sustainable development business in general.

Iwokrama will be sharing key lessons, experiences and innovation in sustainable forest management though certification to the local and international communities. There is a demand by the forest enterprises in Guyana for Iworkama to demonstrate the social, environmental and economic approaches in sustainable forest management. There is also a clear need to share the detailed social and economic frameworks with which to pursue the sensitive nature of community engagements and agreements. The Centre is poised to begin planning for the longer term application of forest certification – lessons, experiences, training and capacity building – for the benefit of the wider forest enterprises within Guyana and the Guiana shield region.

Iwokrama International Centre for Rain Forest Conservation and Development: 10 Years of Integrating Conservation and Sustainable Use

Business Plan 2005-2010

A decade after the Iwokrama International Centre was established as the flagship environmental programme for the Commonwealth and Guyana, its work is even more relevant with the continued unsustainable use of the world's tropical rainforests, and the subsequent loss in the capacity of the world's forests to absorb escalating carbon emissions.

The Centre recently announced the completion of its ambitious business plan that will successfully take the Centre through to the end of 2010. By then, the Centre expects to become a leading authority on the development of models for commercially sustainable, practical and community-inclusive conservation businesses based on tropical forests and their natural assets.

I T P intends to harvest 20,000 cubic metres annually, with potential expansion once the operation becomes established.

The Business Plan provides the blueprint by which the Centre will develop global profit-making models that integrate the private sector with local communities within a sound, regulatory environment. The businesses that are incubated and developed will be distinguished by the production and marketing of high value services and products. The Plan further outlines the opportunities for corporate sponsors, foundations, and private individuals to contribute to a world-class programme that demonstrates ten years of successful integration of conservation and sustainable use of tropical rainforests.

The Iwokrama Business Plan 2005-2010, describes four areas for investment: Sustainable Timber Harvesting; Ecotourism; Training; and Intellectual Property and Services. Together, these areas cover a broad spectrum of forest-based businesses ranging from the conventional extraction of timber, through to the sale of services based on the Centre's experiences, and on the environmental services associated with carbon sequestration, watershed management and other non-timber forest products.

Sustainable timber harvesting is by far the most understood business. Timber represents the largest commercial value of tropical rainforests. Nevertheless, there are still many unanswered questions concerning the optimisation of its social, ecological and economic benefits especially as it relates to the Guiana Shield. Through a subsidiary timber company, the Centre is involved over the next three years in a joint venture operation with a local timber company, to test the Iwokrama models of forest management and to gain the experience of setting up and operating a sustainable harvesting operation. After 2009, the Centre is interested in engaging on a more permanent basis with a suitably qualified investor/manager, with the intention of developing value-added processing and targeted marketing for annual harvest volumes that are in keeping with sustainability, and for greatest returns on investment.

Ecotourism promises to yield the most significant return on investment. The Centre expects to turn its five-year old tourism operation into one that offers a unique experience with strong

community involvement and ownership. The operations will use environmentally, socially and economically viable methods and best practices to provide hospitality services in an ecosystem filled with an enormous diversity of life and with a rich cultural heritage. The comparative advantages of Guyana, the only English-speaking country in South America, and located within the Amazon Basin, will be combined with the unique mission of the Centre and its natural assets, to make it a world-class tourism destination, thus providing another important model of a forest-based business.

Indigenous Knowledge passed down from generation to generation is essential for all training services offered by the Centre.

The Centre's range of Training products will be continuously developed, using its learning and experience to produce on-going improvement in the quality and content of its offerings. Currently, the Centre offers courses in park rangering, tour guiding, and collaborative resource management for community representatives, NGOs, government officials and students in general. The Centre considers itself a global leader in community-based, rainforest conservation and management, and is committed to establish an international centre of excellence in Training for this specialty. Marketing effort will be increased in order to attract a wider range of students. Increased numbers of people will be exposed to field-based, real-time experiences of rainforest conservation and management through the development of sustainable, profit-making enterprises that integrate the private sector with local communities.

Intellectual Property and Services is the least developed of the business programmes of the Centre. The Centre is interested in offering its assets and institutional experience nationally, regionally and internationally, and will therefore seek suitably qualified development partners to invest variously in non-timber forest products; marketing and commercial development of the Centre's consultancy services; research and development of forest-based carbon sequestration and watershed management projects; and development of an eco-branding product. Additionally, the Centre will seeks suitable partners to assist in implementing the Iwokrama Research Programme that continually supports Iwokrama Intellectual Property and Services, including cutting-edge research in conservation and sustainable use of tropical rainforests to maintain or enhance ecosystem quality, community livelihoods, and development of new businesses.

With these businesses, and with the support of corporate sponsors, foundations, and private individuals, the Centre will be positioned to demonstrate how it is possible to incubate and manage synergistically, sustainable forest-based businesses. We look forward to your support. For more information please visit our website at www.iwokrama.org, or write to us at Iwokrama@iwokrama.org

Iwokrama training: specialised training services and 'lesson learned' approaches

Training is a fundamental component of Iwokrama's long term strategy for sustainable utilisation and management of the rainforest. The Iwokrama International Centre has learnt several important lessons for which it has the responsibility to share. These lessons revolve around the central theme of how to collaboratively manage and sustainably utilise the resources in a tropical rainforest to provide lasting benefits to the local communities who are the primary stakeholders, and to a broad group of stakeholders including the local and international private sector. Nationally, Iwokrama has generated and participated in the development of several initiatives including, institutional capacity building, protected areas management, forest, wildlife and fisheries management, and conservation.

"Learning by Doing" Lessons are the basis upon which most of our courses are taught.

Iwokrama offers a series of well planned and proficient field-based programmes and courses including Ranger Training, Tour Guide Training, Collaborative Management and specialized courses such as participatory

The Fred Allicock Training Centre at the Iwokrama Field Station.

approaches in community-based resource management and integrated community development.

Courses and programmes are structured and hands-on with a focus on 'skills learning'. In addition, Iwokrama utilizes local, national, and international expertise to provide courses and programmes of a high quality and standard.

These programmes and courses are delivered at the Iwokrama Forest, located in the "Green Heart" of Central Guyana, and benefit from the facilities and resources offered by our permanent base of operations in the forest: The Iwokrama Field Station, the nearby village of Fairview, the Wilderness Preserve and Sustainable Utilization Area, as well as the surrounding rivers, savannah and local Amerindian communities.

To facilitate this specialized training, Iwokrama provides a living laboratory of nearly one million acres (371,000 hectares) of tropical rain forest. The Fred Allicock Training and Resource Centre located at the Field Station is a multi-purpose facility which houses a Training and Resource Centre that provides for catering, learning, research and administration. A Canopy Walkway facility ideally situated in the forest also provides a great location for training 'among the trees', and compliments the Turtle Mountain Base Camp that provides a more rustic setting for field-based activities. There are also two Ranger Stations in the Forest and several satellite and fly camps scattered in the Forest.

In addition to one Guide Training and three Ranger Training Courses in Guyana, the Centre has also delivered a wide range of specialised courses and workshops for regional organisations, including the Caribbean Community (CARICOM), the Caribbean Regional Environmental Programme (CREP), World Wildlife Fund (WWF), Conservation International (CI) Guyana, the University of West Indies (UWI) and other universities in Europe and North America. The Centre is currently engaged in training 6 rangers for CI-Guyana, and has been contracted by the Guyana Environmental Protection Agency to provide training services to persons who are associated with protected areas in Guyana. The 370,000 euro contract is being funded through a grant from the German Government.

Forest scenes

Responsibility of scientists for balanced communication

Forests in the landscape for wood production and environmental care

By **Sadanandan Nambiar**[1]

Summary: The public are being subjected to an increasing flow of misinformation in the media and influential magazines, with headlines and preposterous views about the alleged adverse effects of tree planting and man-made forests on the environment. Some of these hyperboles are based on some scientific reports which have not served a balanced approach to forestry development and have assisted populist spins. The scientific community need to reflect on the way we communicate science to a diverse world for advancing science-based policies for sustainable land use.

Planted forests provide multiple benefits to society. People plant trees at various scales and configurations in the landscape for a variety of needs and goals. These plantings include industrial forests, farm forests, agro-forests and a broad category of environmental plantings.

The role and value of plantation forestry — the merits and demerits — as a land use system continue to be a subject of debate. Examples include arguments about the planting of exotic or native species, and the potential impacts (positive and negative) of plantation forestry on ecosystem values including those involv-ing water. Informed debate is important to review, refine and improve our journey towards sustainable use of natural resources, including planted forests.

In recent months the public has been subjected to an increasing flow of misinformation and ques-tionable statements in the popular media and influential magazines, with headlines about the alleged adverse effects of tree planting and man-made forests on the environment. These have created much heat but little light, and have typically been based on selected scientific reports. This raises important questions about the responsibility of scientists in communicating science to the world at large.

UK aid report on forests and water

During the later months of 2005, the UK Department of International Development (DFID) released a much-publicised report *From the Mountain to the Tap* (http://www.dfid.gov.uk/casestudies/files/research/forestry-research.asp)[2].

This 55-page paper was based on results from a network of research sites which examined the im-pact of reforestation, as a part of watershed management, on water resources in some catchments in selected developing countries. The author argued that several watershed management projects using 'environmental forestry' have aggravated water shortages and that they are a grossly-misdirected use of resources.

It is accepted that extensive afforestation in previously unforested catchments will reduce water flow. However, the hydrological effects of planted forests are dependant on several factors including the amount and seasonal distribution of rainfall, the fraction of the catchment planted with trees, the location of the trees, landscape features, several soil properties and other environmental variables. As Bruijnzeel points out things are not quite as simple as the FRP report suggests. For a detailed discussion on the topic especially for low rainfall environments see O'Laughlin and Nambiar 2001,. Plantations, Farm Forestry and Water - A discussion paper, Water and salinity Issues in Agroforestry No 8, RIRDC publication Number 01/137-http://www.rirdc.gov.au).

The central goal of the report, we are told, is to promote science-based policies, an admirable aim for which we should strive continuously. The report is not an independently peer-reviewed scientific document. Most of the references cited are project reports, papers to conferences (some organised by the authors them-selves), and popular writings. Although peer review and refereeing are important for quality assurance.. A detailed review of the report is not my intention here.

We should examine catchment management programs in the light of continuously developing know-ledge. Those of us contributing to science and policy related to land use recognise the critical need for data specific to particular ecosystems, sites and situations, and for well-interpreted knowledge and tools to assist in balanced and judicious decisions. In each case, there is an inevitable need to work out participatory trade-offs, sometimes between opposing values. Improvements in land use are not possible without accepting trade-offs.

My concerns about the report and media coverage are that the proponents of this report have resorted to disturbing techniques, an evangelical fervour, to sell their message. Several statements are laced with sim-plistic assertions and quotes (e.g. 'more trees are always better') without telling us the sources to justify the authors' advocacy and opposition to such quotes. Some of the past or prevailing ideas are elevated as "myths" and then demolished. Unfounded but implicitly invoked relationships are used to sensationalise the conclusions. Examples include the implied association between (1) the potential impact of reforestation on water and the excesses of the failed Suharto regime in Indonesia, and (2) the gross inequalities in access to water faced by poor people and forest - water interactions. Millions of people face chronic

[1] The author was a Chief Research Scientist in CSIRO. He is currently an Honorary Fellow in CSIRO/Ensis. Opinion expressed here are author's own and not those of CSIRO or Ensis. He is currently a Senior Associ-ate with Centre for International Forestry Research (CIFOR).

[2] 'From the Mountain to the tap' was published by the Forestry Research Programme of the UK Department for International Devel-opment (DFID) and contains the clause 'The views expressed are not necessarily those of DFID itself'.

water shortages for reasons which have nothing to do with forestry.

Extrapolations of results from small to large scale are questionable: for example, the all-embracing conclusions from 'initial results' of 'field research principally in micro-watersheds' to the large and diverse Indian states of Himachal Pradesh and Madhya Pradash The report and the statements released to the media provide flavoured statements, and muddled messages, that would feed and fuel the 'spins' and 'sex-up' of the popular magazine industry.

Impacts of science communication

Following the release of the report there were adverse headlines about forests and forestry, including: 'Down with trees' (*The Economist* 30 July 2005) and 'Planting trees may create deserts' (*New Scientist* 29 July 2005). These are not from UK's tabloid press. Such preposterous views echoed an earlier headline, 'A forest minister who wants deforestation' (*Times of India* 9 June 2004). The honourable minister advocated large-scale deforestation for sustainable land use and as the best way to improve water supplies in the Indian state of Uttaranchal — a land with fragile ecosystems situated at the base of Himalayan mountain range. This minister is not a hydrologist: presumably some scientists wrote this spicy inaugural address for him to de-liver to a gathering of 'shocked' participants at a conference.

When thoughtless messages on the 'negative hydrological effects' of planted forests are promul-gated, they contribute to media hyperbole (a recent example: 'Plantations may do more harm than good, says CSIRO' ABC Online, 1 January 2006).

The availability of water and its equitable distribution to all are one of the great challenges of our time. While Indian democracy may deal with a forest minister who advocates deforestation as a sustainable land use in the Himalayan range, in January 2006 an eminent economist and the Vice-Chancellor of a repu-table Indian university said, in a public lecture in Canberra, that 'In India 90 percent of the water pumped out of hundreds of wells by farmers is wasted', and that this would continue as long as farmers are able to pump water freely.

South Africa, a country that has introduced a water levy and strict control on forestry as a land use system because trees intercept rainfall and use that water to grow wood. Nevertheless, I saw late last year thousands of hectares of sugarcane fields being irrigated with overhead sprinklers in the middle of the day when rapid evaporation would ensure that only a small fraction of that water fell on the crop canopy, let alone reached the soil beneath it. In the Murray-Darling Basin irrigation areas in southern Australia, very large amounts of precious water are lost in transit and wasted by end users. Thus around the world we see large-scale abuse of water in farming and elsewhere.

Science to support balanced policies

Contemporary thinking and best practice using planted forests do not include the sweeping conversion of land to plantations which has been the experimental basis of most traditional forest hydrology studies. Ra-ther, retention of native vegetation including woodlands, and establishment of other perennial vegetation, are recognised as essential for the integrated management of landscapes (catchments) for wood production and ecosystem services. Only a mistaken few would advocate the one-size-fits-all approach.. In Australia, for example, even where industrial-scale forestry provides crucial support for regional economies and envi-ronments, plantations cover only 2–6 percent of the land area in any major catchment.

It is important to formulate ecosystem, site and situation-specific solutions. Catchment bio-geographical properties, the location of plantations and their area in relation to other activities in the land-scape, their size and purpose, the nature of forest management and ecosystem services, the comparative ben-efits to the community from all aspects of land use, and attractiveness for investment to be economically viable are important factors to be taken into account. Substantial progress is being made in developing tools to assist sound land management decisions.

The contributors to the FRP report have a case for advancing well-conceived, science-based invest-ments for watershed management. But the nature and style of the report's assault on planted forestry discour-ages much-needed investment in planted forests, especially in tropical countries. Forestry can contribute much to sustainable land and water management programs by providing both economic and environmental benefits.

Forests and global warming

The curtain may be rising for another drama on our stage. In a recent paper (*Nature* 439, 187–191, 2006) Keppler *et al*. reported a discovery that several species of plants emit small quantities of methane, a green-house gas. This report is based on well-controlled experiments and clearly warrants further careful examin-ation. In a subsequent paper (*Nature* 439, 148–149) Low went further, with no additional science or evidence, and raised 'the spectre that the new forests might increase greenhouse warming through methane emissions rather than decrease it by sequestering carbon'. This spectre fuelled the next step, the predictable, sensational headline-'That sinking feeling: trees may rise global warming' (*Canberra Times* 12 January 2006). Since then my colleagues (Polglase, Paul and Booth) have provided the first approximate analysis for Australia (http://www.ensisjv.com/Plantations+as+carbon+sinks.aspx). They estimated the amount of methane re-lease from seven representative plantations across Australia using the Kepler *et al*. methodology and reliable productivity data from 20 diverse sites. The average annual emission of methane was estimated to be equiva-lent to 1.2 t CO_2e ha^{-1} y^{-1} compared with a carbon sequestration rate of 25 t CO_2e $ha^{-1}y^{-1}$. They point out that any negative effects of methane emission would be small: probably less than 5 percent of the benefit derived from carbon sequestration. Since agricultural land also emit methane, the net benefit from trees planted on farms would be even greater. It will take a considerable amount of new research to provide a scientific basis for a reliable assessment of the potential impact at a global scale of plant-emitted methane.

Our responsibility

I find it difficult to share fully the view aired by some scientists that they are innocent of spins and that the media 'misquoted' them 'out of context'. These of course are possible, but it is also a tedious standard line. It is my experience that if our pronouncements do not overstate the messages, one way or another, and if we are conscious of the uncertainties and limitations of our science, it is possible to get across sensible informa-tion in interesting ways to inform the community through the media.

Science-based policies are not advanced by negatively portraying forestry as a land use system which uses all the

water, causing drought (and ignoring knowledge from climate science) and emitting me-thane which further warms the globe.

We should reflect on what and how we communicate science to the diverse world to promote in-formed discussion and balanced outcomes and benefits, economic and environmental, to society. This is in-creasingly important for enabling us to continually serve society through science

Wild Harvests from Scottish Woodlands: understanding the values of contemporary non-timber forest product harvesting in the developed world[1]

By **Marla Emery**, **Suzanne Martin** and **Alison Dyke**[2]

It is often assumed that people's close relations with and material dependence on woodlands disappeared with processes such as forest felling in association with World War I and industrialisation. However, Scottish woodlands and countryside continue to have special importance for people who harvest wild plant material and fungi (collectively referred to as non-timber forest products, or NTFPs). A 2003 survey (TNS Global, 2003) indicated that within Scotland, 24% of the population had collected NTFPs in the previous five years and that 80% of those people (which equates to around 19% of the Scottish population) had gathered NTFPs in the last 12 months.

In 2004 Scottish Forestry Trust, Scottish Enterprise, and Forestry Commission funded a research project to explore the social, cultural, economic, and environmental characteristics of current NTFP gatherer practices and perceptions and explore their implications for forest policy and management. The project was delivered in collaboration with Dr Marla Emery of the US Forest Service, Dr Suzanne Martin at Forest Research and Alison Dyke an independent NTFP expert. Face-to-face interviews were conducted with 30 Scottish NTFP gatherers (also referred to as collectors and harvesters) mainly from the Scottish Borders and north-western Highlands. The people who took part in the research did so through their own motivation, responding to media announcements and posters. As such they may represent the more enthusiastic end of the Scottish NTFP user spectrum. They also represent the voice of small-scale domestic users, rather than large scale commercial gatherers.

Family gathering brambles

From a member of the House of Lords in his castle to an unemployed gentleman in a fisherman's cottage, from a biology teacher on the outskirts of Dumfries to a young farmer on the Black Isle, collecting wild plant materials and fungi is a valued part of the lives of the people who participated in this project. Indeed, the most remarkable aspect of contemporary wild harvests in Scotland is the joy and passion expressed by gatherers.

Participants to this project collect over 200 NTFPs derived from 173 vascular plant and

[1] This extract is adapted from the Forestry Commission publication 'Wild Harvests from Scottish Woodlands: social, cultural and economic values of contemporary non-timber forest products'. It is kindly produced with the permission of the Forestry Commission and is subject to Crown Copyright.
Full copies of the report are available to down-load from the Forestry Commission website (www.forestry.gov.uk). Hard copies of the report are also available for £12.50 and information on how to order them is on the Forestry Commission website.
In May 2006 a seminar was held to launch the publication and to explore how to develop the use of NTFPs in Scotland. Summary reports on the seminar can be found on the website of the Scottish Forest Industries Cluster http://www.forestryscotland.com/
If you would like further information on the project, report or seminar, please contact Suzanne Martin on 0131 445 6930 or suzanne.martin@forestry.gsi.gov.uk.

[2] Dr Suzanne Martin Social Scientist, Forest Research, Northern Research Station, Roslin, Midlothian, EH25 9SY.
Dr Marla Emery, Research Geographer, USDA Forest Service, Aiken Forestry Sciences Laboratory, 705 Spear Street, PO Box 968, So. Burlington, VT 05403.
Alison Dyke, independent participatory natural resources management consultant.

fungal species. Many of these species are the source of multiple products. Edibles are the most common use amongst the collectors we sampled (110 products), followed by craft uses (81 products), particularly for basket making and wool dyeing. Wine making and other beverage production accounts for an additional 34 products. Medicinal uses were notably infrequent, accounting for just 18 products. Some 10 products have miscellaneous uses for purposes such as garden implements and toys. The number of products harvested by a single collector in our sample varied from a high of 67 to a low of 6, with a median of 15 products.

Livelihood uses of NTFPs among our sample were overwhelmingly non-market, a profile that is likely to be representative of the larger picture in Scotland. Collectors and members of their households consume or use a majority of the items that they harvest. However, gifts to family and friends are also common. All of the income generation from NTFPs discussed by our interviewees takes place in the informal cash economy and is considerably less common than personal consumption and sharing. However, sale of value-added goods such as crafts and jams is a significant activity for some gatherers. Volumes of both harvested material and product sold are limited by the time available to a gatherer for these activities and the manual harvest methods employed. Earnings are generally very modest and, in the case of artisans, serve more as a means to support continued craft work than a source of profit. Only one collector in our sample relies on NTFPs to meet some of his basic living expenses. He had been selling fungi to a commercial wholesaler but calculated that at the low price point in the mushroom season his daily earnings after costs were less than the price of a day's food. Barter and direct sales to restaurants provide better returns for his time and effort.

Birch bark baskets

Gatherers draw on multiple sources of information to find and make use of NTFPs. Most were introduced to the activity by a parent or grandparent and many have taught their own children. In some cases, sharing of information among friends provides additional sources of knowledge. Many collectors also consult field guides and popular books to expand or confirm their knowledge.

Gathering generally takes place in conjunction with other activities and is strongly associated with a regular regime of walking. Searching for NTFPs makes collectors keen observers of the passage of seasons, the activities of wildlife, and changes in the landscape. This intimate relationship with the countryside is cited as an important benefit of collecting NTFPs, in addition to the more tangible values of prized flavours, special materials, and occasional small amounts of cash.

Concern about the sustainability of NTFP harvesting is low among collectors. This is not surprising given that a majority of the products they harvest are fruiting bodies or coppiced materials. Further, gatherers believe that the volumes they harvest do not have a significant impact on species populations. Nevertheless, many gatherers do express strong concern about conservation in general and try to observe what they consider to be environmentally appropriate practices.

The results of this study demonstrate that there is a woodland culture in contemporary Scotland. That a vast majority of the collection is for household use suggests the deeply personal nature of this connection. Indeed, some gatherers consider the activity fundamental to their personal identity as human beings, as Scots, as members of their family, or as individuals. Growing interest in these products as revenue sources and income opportunities could lead to developments that complement or collide with current collectors' values. As such, NTFPs would seem to merit greater inclusion in forest research, policy, and management.

Indeed, the findings have several implications for forest policy and management. Scottish NTFPs come from a variety of habitats, pointing to the desirability of managing for a diverse landscape. Collectors express particular appreciation for mature, mixed species woodlands' and there are opportunities to provide some of the more commonly harvested NTFPs through measures such as planting hazel and other woody shrubs at woodland edges. Cultivation of good relations between forest managers and collectors would reveal other creative NTFP-related opportunities.

While customary practice generally allows good access to NTFPs, Forestry Commission bylaws prohibit all gathering, even while some Forestry Commission locations operate wild fungi forays and other NTFP-related activities. The implications of national legislation such as the Land Reform (Scotland) Act 2003 are unclear. Consequently, contemporary gathering in Scotland rests on rather tenuous legal footing. Review and reconsideration of this legal status is recommended as part of any efforts toward greater inclusion of NTFPs in forest policy and management.

ITTO's *Status of Tropical Forest Management* 2005 – a short description[1]

On May 25th 2006 the International Tropical Timber Organization released its report entitled the *Status of Tropical Forest Management 2005*, the most comprehensive and fully researched account of this topic made hitherto[2]. It follows upon that published in 1988 as *No Timber without Trees* and a partial survey in 2000. This study covers the 33 producer countries of ITTO which contain between them 95% of tropical forest and almost the whole of closed tropical forest.

The study examines the approach to sustainable forest management (SFM) in three stages. First, the establishment of a permanent forest estate (PFE) which broadly guarantees that the forest will remain forest; second, the preparation of management plans; and thirdly the effective implementation of the plans. Statistics are provided for each of these, supplemented by figures on areas certified. The main focus is on forests devoted to production but forests for the protection of biodiversity, soil and water are also included.

Log landing in Pokola, Republic of Congo, Congolese Industrielle de Bois (CIB), a company of TT-timber international. The main timber species exploited are Sipo and Sapelli.

The report is in two parts. The first describes the history

Logs of espave (Anacardium excelsum) in Kuna Yala forest area in Panama. Community owned forests, harvested through contracts with small logging entreprises (on an yearly basis).

[1] A full review of this publication will appear in December's IFR.

[2] Status of Tropical Forest Management 2005. International Tropical Timber Organization, Yokohama. 302pp. ISBN 4 902045 24 9. A Summary Report has also been published as a special edition of *Tropical Forest Update* 2006/1

of the study, its methodology, summarises its findings, gives conclusions and recommendations and contains a number of tables of global and regional statistics: the second consists of profiles of all the countries studied. These are fully referenced and are based upon all available evidence – country reports based upon ITTO's Criteria and Indicators, C&I workshops held in many countries, special diagnostic missions, field projects and material derived from reports by other organisations, especially FAO, and from knowledgeable individuals. Data for protected areas were provided by UNEP-WCMC. The country profiles have sections on: the status of forest resources, institutional arrangements, status of forest management (for both production and protection forests) and socio-economic aspects. Part 2 provides the body of data on which the findings and conclusions are based.

The survey finds that there has been considerable improvement since 1988 but there is still a long way to go. Of the 1220 million hectares of tropical forest, 814 million are considered to be PFE (353 production forest; 461 protection forest). Deforestation, mainly outside the PFE, still occurs at about 12 million ha a year. The report only considers the management status of the PFE.

Of the production PFE, 27% is covered by management plans but only 7% is judged to be sustainably managed. For the protected area PFE, the amounts are 3.9% and 2.4% respectively. These figures are likely to be conservative, as only areas for which there is convincing evidence of sustainable management are included. The situation is brittle: all one can say is that the areas are managed in a manner 'consistent with sustainability'; circumstances may change. But the report indicates that there has been real progress in many countries which may be built upon in the future.

A main constraint lies in the almost universal shortage of resources for effective management and control, exacerbated by civil unrest and illegal operations. Fundamental is the fact that sustainable forest management is less profitable as a use of land than its alternatives. A combined effort by governments, aid organisations, industry and consumers is need to rectify this.

Duncan Poore
CFA Vice-President

The threat from fires in radioactively-contaminated forests

The world has recently been reminded of the 20th anniversary of the world's worst nuclear power disaster, when a test of the cooling system of Unit #4 of the Chernobyl power plant went disastrously wrong on 26 April 1986. The emergency shut-down failed and the nuclear reactor exploded, contaminating in the succeeding days a wide area of Belarus, the Kiev region of Ukraine and parts of the Russian Federation. The tragic human and economic consequences haunt proposals for re-starting nuclear power programmes to this day.

A recently-published study of forest fires in Central Asia[1] draws attention to an outcome of the Chernobyl tragedy that is less well-known: the contamination of 6 million ha of forest lands, including over 2 million ha in the zone most heavily polluted, mainly with caesium-137 but also in this fire-prone core area with strontium-90 and plutonium-239. But fires still occur, despite prevention and suppression measures, including in the core zone: between 1993 and 2001 a total of 770 fires occurred in the closed area of Ukraine, affecting 2 482 ha, while 186 fires occurred between 1993 and 2000 in the closed zone of Belarus over 3 136 ha, including 1 458 ha of forest. The radioactive smoke particles threaten people near and downwind of the fire sources, as well as the fire fighters themselves.

Recent proposals to prevent the occurrence of fires in contaminated areas – or at least to minimise their spread – have been made. They include the remote detection of fires and remote suppression by aerial fire fighting, as well as better breathing protection for fire fighters.

Radioactive contamination of forests is also found in eastern Kazakhstan, where 450 nuclear tests (including 100 atmospheric tests) were conducted between 1949 and 1989 at the Semipalatinsk Nuclear Weapons Test Site. Fire-prone pine forests along the Irtysh River, on the border with the Russian Federation, are heavily contaminated. Since 2004 the World Bank has financed the Kazakhstan Forest Protection and Reforestation Project, in which the aims include fire management.

Jim Ball
CFA Chair
(Jim was involved in drafting the global overview on forest fires)

France publishes a White Paper on Tropical Rainforests - *Livre blanc sur les forêts tropicales humides. Analyse et recommandations des acteurs français*

Following the 6th Conference of the Parties to the Convention on Biological Diversity (The Hague, Netherlands, April 2002), the French government started a process of revision of its policy on tropical high forests conservation and development. The Ministries of Foreign Affairs, of Ecology and Sustainable Development, and of Agriculture, chaired jointly an open-

[1] Goldammer, Johann G. March 2006. Thematic report on forest fires in the Central Asian Region and adjacent countries. Published by FAO Forestry Resources Development Service, Forestry Department, as Fire Management Working Paper FM/16/E. To form part of a Forest Fire Thematic Report, Global Forest Resources Assessment 2005

ended informal working group, composed of representatives of the private forestry sector, of consumers and environmental NGOs, and of public development and research institutions active in the field of tropical forestry, and whose mandate was to present the government with relevant recommendations. The Group heard several foreign experts, in particular from tropical Africa. An interim report was published in 2003[1], highlighting elements of converging and diverging views, and sketching out recommendations.

The work was then pursued for two more years and has resulted in the production of this "White Book" whose objectives and scope are:

- to serve as a reference base for the government (and its institutions) for defining its strategy in this field and elaborate its positions in related international meetings;
- and to provide guidelines also to concerned French private stakeholders and NGOs.

In this second phase, the group carried out its work through eight subgroups focusing on the following subjects: institutional strengthening and governance, increasing concern for sustainable forest management in wood trade, economic valorisation of forests, enhancing the social component of forest management, enhancing conservation of biodiversity and environment protection in forest management, restoration of forest cover, securing sustainable forest management in overseas French territories, promoting forest management.

The "White Book" first reviews the environmental, social and economic stakes of tropical high forests conservation and development, the related context, debate and actors at the international level, and the positions and action of the French government in this field. In a second part, it presents a detailed rationale for the various recommendations, which are then recapitulated under the following headings:

- promoting an integrated approach to biodiversity conservation and sustainable forest management;
- improving the governance of forested areas;
- improving knowledge, research and information dissemination;
- accounting for sustainability concerns in wood trade;
- follow-up of the recommendations.

Concerning this latter aspect, it is agreed that priority be given to the following elements:

- evaluation of cooperative projects in the field of forest and environment, including those of the French Global Environment Fund (FFEM), and with particular reference to those developed within the framework of the Congo Basin Forest Partnership;
- follow-up of the European FLEGT (Forest Law Enforcement, Governance and Trade) Plan;
- follow-up of the application of the 2004 French regulation on public wood purchases.

The publication is produced by La Documentation française, Paris, 2006. 173 pp. ISBN : 2-11-006125-4. 20 €

J-P Lanly
CFA Governing Council

CIFOR provides free books to developing countries

The Center for International Forestry Research (CIFOR) in Bogor, Indonesia has two recent books that are available to people in developing countries free of charge. *The Complex Forest: Communities, Uncertainty and Adaptive Collaborative Management* (C. J. P. Colfer, 2005, Resources for the Future/ CIFOR, Washington, DC) provides an introduction to adaptive collaborative management (ACM), and an assessment of CIFOR's first three years of experience with this approach. ACM was initially implemented in 30 sites in 11 countries, all of which are described in this assessment, along with the variations in approach and impacts on the different sites. *The Equitable Forest: Diversity, Community and Resource Management* (C. J. P. Colfer, ed., 2005, Resources for the Future/CIFOR, Washington, DC) is a collection that builds on many of these same endeavours, focusing specifically on the CIFOR experience trying to incorporate marginalized groups (women, pygmies, lower castes, etc.) effectively into community forest management. These books are also available for purchase by people in developed countries from Resources for the Future (Miriam Dowd, Dowd@rff.org).

Website reveals extent of botanic garden network

Readers of the Newsletter may be interested to know of the website of Botanic Gardens Conservation International (BGCI). BGCI links over 800 botanic gardens and botanical institutions in the world's largest network for plant conservation, environmental education and sustainable development, and the website enables you to search for the links to the botanic gardens in more than 120 countries. I found it quite fascinating - did you know that both Australia and India have 128 botanic gardens, and that there are very few countries without at least one botanic garden? Botanic gardens are always interesting places for foresters, so it's worth checking out this site before you travel to a new city - or even to see what you may be missing closer to home! See http://www.bgci.org/botanic_gardens/home

Jim Ball
CFA Chair

[1] Falcone P., Rocard S., Hermeline M., Neuville A., *Forêts tropicales: comment la France peut-elle contribuer à leur gestion durable?* Paris, La Documentation française, 2003.

ODI's Forest Policy and Environment Programme Grey Literature Collection completed

ODI's **Forest Policy and Environment Programme Grey Literature Collection** is now completed, providing a unique record of documents reflecting the origins of people-oriented forestry over the last 25 years. Contributed by members of the Rural Development Forestry Network, the collection includes many project reports and other unpublished materials that shed light on the transition of foresters from being forest guards to acting as facilitators of community-based resource management. http://www.odifpep.org.uk/publications/greyliterature/index.html

ODI

Around the world

China does not menace global forest resources at all

„China will deplete all the world's forest resources by 2031, when one of every two logs from tropical rain forests for export will be shipped to the country." In response to such thrilling hearsays spread by Western media recently, a Chinese State Forestry Administration spokesman cited these remarks as simply „groundless" without „any scientific basis".

Lester R. Brown, president and chair of the World Watch Institute in the United States, issued a 100-page report titled „who will feed China -- a Wake-up Call for a small planet", provoking the „Brown Wave" concerning China's food menace theory 12 years ago. Twelve years later, he again made a prediction on the impact of the country's economic growth on the global resources and environment In 12 years, specifically by 2031, China's per capita income will reach the level of the United States today¡ and if „rain consumption needed to sustain a U.S.-style diet rich in meat, milk and egg," „China would consume 1,352 million tons of grain, far above the 382 million tons used in 2004. This is equal to two thirds of the entire 2004 world grain harvest of just over 2 billion tons."

Brown did not intend to see China follow the US mode in its economic development, but Western media quoted him out of contest, saying that its paper consumption then will be twice as much the whole world's present consumption and so paper making industry in China will deplete the forest resources around the globe.

Meanwhile, some non-government organizations (NGO) also refer to China as „imperiling the global forest resources."

„Global Witness", a NGO based in London, said most of the „timber imported into China, now the largest consumer of logs from tropical developing countries, now converted into furniture, plywood and other processed products for export to the United States and Europe", and the country imported 350 million US dollars worth of timber from Myanmar in 2005 alone.

The Environment Investigation Agency, a NGO in the U.S., has gone to the extreme with his censures, as its chairman Allan Thornton said China has, by importing timber from Indonesia, Myanmar, Malaysia and Papua New Guinea, has deprived these countries of their futures.

Reuter and other Western media agencies also report on China's possible menace on the world's forest resources with its drastic rise in timber demand.

Moreover, a Russian media report said China intents to lease one million hectares of forests in Siberia, but the rumor has been clarified officially and denied by the relevant Chinese authority.

On August 15, Cai Qingrao, a Chinese State Forestry Administration spokesman, made responses to all these allegations, saying that China has not depleted its own forest resources and the country's forest resources are still being renewed and developed.

China's forest coverage rated has risen from the past 8.6 percent to 18.21 percent at present and up to over 23 percent by 2020, he said. Though China imported some logs, it also exported timber products in large quantities, and export volume overtook import volume in 2005 total trade quotas. From a long term point of view, China is fully capable of coping with its own forest resources issue.

In refuting China's illegal importation of logs, Cao said his country has enacted very rigid regulations on log import and has been bent on improving relevant laws and codes, while setting up coordination mechanism with its neighboring countries to deal with illegal timber trade.

With repeated media reports on wild logging spread, the people's awareness of timber resources crisis has been on steady rise in recent years. According to the Food and Agricultural Organization of the United Nations (FAO), the global log storage volume stood at 337 billion cubic meters in 1990 and rose to 386 billion cubic meters with an average annual increase of more than 900 million cubic meters.

Russia's forest acreage amounted to some 800 million hectares, or 20 percent of the world's total. With a storage volume of over 82 billion cubic meters, its potential use volume can reach as high as more than 550 million cubic meters, whereas the country logged only 130 million cubic meters.

Therefore, the fallacy on China's depletion of the global forest resources is nothing but an exaggeration. Some of the Western media reports have ill intentions and some are exaggerated, while some others are out of good intentions, experts have acknowledged. As a very responsible nation, China is clearly aware and duty bound to protect natural resources, and pays increasingly greater attention to log import and export management, so as to lessen the effect on the primitive forest resources around the world.

People's Daily Online
english.people.com.cn

External reviews find most logging in Papua New Guinea illegal, unsustainable and providing little benefit to the state and forest community

A new report on the commercial logging industry in Papua New Guinea (PNG) released by a leading international forestry organization, Forest Trends, shows that the overwhelming majority of current commercial industrial forestry operations in PNG are ecologically and economically unsustainable, and, in fact, illegal, as found by the government's own commissioned independent audits conducted between 2000 and 2005.

The Forest Trends report, *Logging, Legality, and Livelihoods in Papua New Guinea*, summarizes the findings from five independent reviews of the timber harvesting industry conducted between 2000 and 2005. The reviews were initiated by the Papua New Guinea government in response to the widely held view that forest management in PNG was not providing long-term benefits to the country or its citizens.
The findings illustrate a fundamental lack of governance, and that unless this system is fixed, other schemes, such as the government's current proposal to sell forest carbon, risk being equally corrupted.

The reviews were conducted following terms of reference approved by the Government and the World Bank by teams of independent experts, including lawyers, foresters, economists, and environmental and social scientists. The review teams received unique access to official records, logging sites, and company documents and were able to conduct wide-ranging interviews with industry officials, landowners, and government officials.

"This report will prove to be a valuable source of objective and credible information on forest governance in Papua New Guinea, and will certainly help traders throughout the world better discriminate between legal and illegal sources of timber," said Andy Roby of the UK Timber Trade Federation. "The Government of Papua New Guinea and the World Bank are to be congratulated for sponsoring the original evaluations."

Papua New Guinea's forest industry is predominately focused on the harvesting of natural forest areas for round log exports. There is little plantation production and only a limited number of processing facilities. The sector is dominated by Malaysian-owned interests and the primary markets for raw logs are in China, Japan, and Korea. Many of the logs are processed in China for consumption in Europe and North America.

The Reviews included a study of fourteen logging projects covering a gross area of 3.17 million hectares and with a local population of over 83,000 people. In 2004 these operations produced 1.3 million cubic meters of logs with a declared export value of US$70 million. All fourteen projects were found to be operating unlawfully and the timber harvesting was not being sustainably managed.

According to the Forest Trends report, "none of these 14 projects can be defined as legal and only one project manages to meet more than half of the key criteria set for a lawful logging operation."

The findings of the reviews were presented in 63 individual reports that together provide a unique assessment of PNG's forest administration system. The reviews show that the primary governance role of the PNG Forest Authority is seriously deficient, and that there is a political vacuum with no demonstrated government interest in controlling the problems in the sector.

Volume I and II of the Forest Trends Report, as well as material from the Government reviews which have been made publicly available by the Government of PNG, are available on the Forest Trends website: www.forest-trends.org.

Forest Trends
www.forest-trends.org

Selective logging leads to clear-cutting in Amazon

A study has shown for the first time that ‚selective' logging in the Brazilian Amazon increases the likelihood that an area of rainforest will be cleared at a later time. Selective logging, which refers to the practice of felling only certain trees in a given area, is promoted as a sustainable alternative to clear-felling. But the study published this week by Proceedings of the National Academy of Sciences found that from 1999 to 2004, 16 per cent of selectively logged areas were deforested within one year of logging, and one-third were cleared within four years.

Researchers led by Gregory Asner of the Carnegie Institution of Washington, United States, used high-resolution satellite images to measure the extent and intensity of logging across 46,000 square kilometres of the Brazilian Amazon. Nearly all selective logging in this area took place within 25 kilometres of main roads. The probability of deforestation for a selectively logged area was up to four times greater than for intact forests.

„This is surprising because selective logging has been heralded by the timber and conservation sectors as an alternative to clear-cutting of the forest," Asner told SciDev.Net. „Since logged forests are eventually consumed by deforestation for pastures and ranches, logging is clearly not being managed as a long-term investment in forest resources." Asner says that the small roads loggers create give farmers access to new areas of forest to clear. „The roads are the link between selectively logging a forest then clearing it."

Co-author José Silva of the Brazilian Agricultural Research Corporation (Embrapa) says that the government has taken some steps to control logging more effectively. These include granting timber producers access to plots of forest on the condition that they manage them sustainably, and creating the Brazilian Forest Service to manage forests set aside for timber production. „The recent policies combined with economic and ecological zoning, better control of illegal exploitation and the use of areas already converted for agricultural activities will change the current scenario", says Silva.

Philip Fearnside of Brazil's National Institute of Amazonian Research, told SciDev.Net: „Logging is a major threat to Amazonian forest and has so far been one of the most difficult activities for the government to control."

SciDev.Net
www.scidev.net

City takes step to protect forest in Niger

As fears of its destruction mount, city authorities have taken steps to protect the forest, or the greenbelt, around Niamey and evict squatters living within its confines. The forest protects the city from encroaching desertification and the extremes of Niger's climate. Although an ultimatum to vacate the greenbelt was issued Apr. 30, IPS has verified that the forest is still being occupied by the squatters.

Maman Ibrahim, the regional environment director for the Greater Authority of Niamey, estimates the size of the greenbelt, set up in 1965, to be 2,500 hectares. The most prominent tree in the forest is Neem, which has an ability to grow in hostile environment like desert. For more than a decade, the people living in these sprawling hamlets, which have sprung up in the greenbelt over the years, have cut and burnt down the neems. „These people chop down trees illegally to build their huts and for firewood. There are also fires which cause considerable damage," said Illia Yahaya, the head of the reforestation service at the Regional Department for Environment for the Greater Authority of Niamey.

Captain Mohamed Sidi, of the Niamey Fire Department, told IPS: „We experience at least five fires a week in populated areas of the greenbelt in the dry season. According to our estimates, about 13 hectares of plants have been disappearing each year since the greenbelt was completed in 1993."

The 6-million-dollar project was implemented in several phases between 1965 and 1993, with support from the United Nations and the World Bank, Ibrahim said. „Until 1993 there were about 30 guards supported by forest rangers to provide security," he noted. But security was discontinued due to a lack of resources to pay the guards and provide fuel for the forest rangers' vehicles, according to Ibrahim.

Niger's 2004 Forestry Law stipulates that no commercial activities may take place within the greenbelt and imposes fines of 100 to 1,000 dollars or three months in prison on anyone who destroys the forest. „But since the authorities have become lax, the squatters have nothing to worry about," Yahaya told IPS. The destruction of the forest continues. To prevent it from totally disappearing, the city authorities have decided to evict those living there, who mostly come from rural areas.

But the residents are not going without a fight. They are demanding that the authorities relocate them to a new site with basic amenities. „Some of us have been living here for more than 20 years. Our children were born here and go to neighbouring schools," Harouna Seydou, a 60-year-old head of a hamlet, told IPS.

„We won't move as long as we don't have a new place for settlement," added Tahirou Adamou, a resident of one of the larger settlements. Mamata Kindo, a 49-year-old widow, explained to IPS, „We need a well, a school for our children, a market, and a health centre at the new site". She has been living in the greenbelt with her six children for more than a decade. Issoufou Garba, a Niamey resident, said the scramble for a space at the greenbelt began in the 1980s as Niamey, the capital, began expanding. This forced livestock breeders living near the city to relocate.

Niger also experienced drought from 1984 to 1985, „which caused many people from the countryside to flee impending famine and migrate to urban centres", according to Boureima Alpha Gado, a Niamey-based researcher.

Aboubacar Ganda, the president of the Greater Authority of Niamey, told journalists last month that „the greenbelt is a hideout for bandits of all types who disturb the peace of the capital's residents". But Abdoulaye Issa, the mayor of the Niamey IV district, has ruled out using force against the residents. „It won't be done by force. We are in the process of finding them a viable site to relocate, so we can save the woods which beautify our capital," he said.

Local authorities could not establish the exact population of the greenbelt. „The people living in the greenbelt were counted as part of Niamey during the 2001 general population and housing census, which makes it hard to determine how many they are," Ismael Yahaya, a municipal councillor, told IPS. „There are probably hundreds of families that today live in these woods, given the huge rents in the city, which are forcing people to leave town and take up residence there". Niamey's population is estimated to be 800,000 -- or 5.7 percent of the country's 14 million people. „The majority of the residents in the greenbelt are petty traders, carpenters, watchmen, labourers, cobblers, domestics who cannot afford to live in town," Abdourahamane Noma, a Niamey-based sociologist, told IPS.

Marou Amadou of the Equity and Quality Coalition Against the High Cost of Living, a Niamey-based association of non-governmental organisations, said: „The authorities should leave these people, who are not bothering anyone, alone. Where do they want them to go?"

Inter Press Service
allafrica.com

Climate change threatens important mangroves

Rising sea levels linked to global warming threaten economically, ecologically and culturally important mangrove forests in Pacific island states. The warning comes in a study published 18 July by the UN Environment Programme (UNEP), which says some of the region's islands could lose half of their mangroves by 2100.

The report predicts that American Samoa, the Federated States of Micronesia, Fiji and Tuvalu will be worst hit. Mangroves grow along coasts throughout the tropics and subtropics. They occupy the boundary between land and sea and are semi-submerged during high tides. Many species of commercially important fish breed and raise their young among mangrove roots, and studies have shown that when mangroves are cut down local fish catches decline. Mangroves also provide a range of ‚ecological goods and services' for coastal communities. They are sources of timber and medicines, and they protect shorelines from storms and tidal surges.

The UNEP study shows that up to 13 per cent of the Pacific region's mangroves could disappear as sea levels rise because the forests' natural response — to retreat further inland — is blocked by natural features and man-made obstructions, such as sea walls and settlements. The report recommends limiting coastal development and allowing mangrove forests to spread inland. It urges policymakers to rehabilitate former mangrove areas by planting young trees, and to create new mangrove

habitat.

Phan Nguyen Hong, head of the Mangrove Ecosystem Research Division of the Vietnam National University, agrees that rising sea levels and mangrove loss are a concern. But he points out that direct human action — such as conversion of mangroves to shrimp farms — has already had a massive impact. He points to recent figures from Vietnam‘s Ministry of Agriculture and Rural Development that show the country has just 165,000 hectares of mangroves compared to 408,500 hectares before 1945.

„But now the government has considered the problem seriously and decided to restore the mangroves,“ Hong told SciDev.Net. „It is because recent storms caused much more severe damage for people in areas where the mangroves have disappeared.“ He says replanting mangrove forests could help to limit the effects of rising sea levels and increase local catches of marine products.

The UNEP report says the annual economic value of products and services that mangroves provide is between US$200,000 and US$900,000 per hectare. Achim Steiner, UNEP‘s executive director, said that there is „an urgent need to help vulnerable communities adapt to the sea level rise which is already underway. This report provides sensible and sound advice on management regimes needed to boost the health and resilience of coastal zones and coastal ecosystems — like mangroves — in the face of current and future threats,“ he said.

SciDev.Net
www.scidev.net

Energy instead of pulp?

European forest owners and the European pulp and paper industry are increasing their interest in bio-energy production. As a result, trees grown in European forests may become mainly used for bio-energy production rather than for the production of paper and timber, as European forest owners and the woodworking and paper industry shift their research towards bioenergy production.

This trend is already visible in the forest owners’ and forestry industry’s strategic research agenda drawn up as part of the forest-based sector technology platform. The website http://www.forestplatform.org/ – set up with a 50 million Euro contribution from the European Commission – is one of a series of technology platforms aimed at developing sectoral R&D programmes to stimulate competitiveness. The strategic research agenda shows that the forestry sector sees the production of bio-energy as a third pillar of the industry alongside paper and wood production. Pulp mills could be adapted to become bio-refineries producing pulp, energy and chemicals. The strategy is very honest about the fact that the availability of wood is paramount, and notes that the sector must ‘accommodate the ambitions of other stakeholders’ and balance forest use for biomass production with other uses of timber. However, it fails to outline the environmental and social consequences – or a strategy for avoiding them – of an increased bio-energy sector demand for wood. With today’s demand already resulting in ever-expanding monoculture tree plantations in the South and with biodiversity loss a key concern for forests in Europe, more wood for bio-energy must mean less wood for other uses. What is needed is a strategy that will reduce Europe’s overall footprint both on the world’s forests and on the global climate. Whether the strategic research agenda will provide this or whether it will simply further increase the demand for monoculture plantations remains to be seen. No environmental NGOs are part of this technology platform.

FERN
www.fern.org

Indonesia says forest fires to disappear in 2 yrs

Indonesia‘s environment minister pledged on Thursday the forest fires that frequently blanket parts of Southeast Asia with choking smoke would disappear in two years. Indonesia has been under pressure from its neighbours to deal with recurring forest fires in Sumatra and Borneo that emit billowing smoke, or haze as it‘s known in the region, which deters tourists and causes health problems.

„We are making very, very serious efforts. We will not be able to eradicate the fires completely this year and next year, but in two years they will be gone,“ Environment Minister Rachmat Witeolar told Reuters in a telephone interview. Witoelar said the government would impound land belonging to plantation and timber companies suspected of being cleared by burning and bring their owners to justice. „It‘s a desperate measure. They (the companies) may claim that it‘s the work of local farmers but they won‘t be able to use the land and will not be able to profit from it,“ he said.

Police were investigating 20 Indonesian plantation and timber companies suspected of involvement in clearing land using fires, with one company employee detained, he said.

„I have told the police to arrest anyone involved and seize the land,“ he said.

It is illegal to carry out slash-and-burn land clearing in Indonesia, but prosecutions take time and few have stuck. Local sources also point to limited government budgets and difficulty enforcing national policy locally. The minister‘s target of eradicating the fires in two years is more optimistic than some other officials, who see the seasonal fires going on for years.

Witoelar said the number of individual fires on Sumatra and Kalimatan this year had declined to around 1,000 from about 3,000 last year over the same period. He said blaming Indonesia solely for the haze was not fair, since forest fires happened in many other places, including in Sarawak in the Malaysian part of Borneo island. „The problems with our fires is that the wind blows from the south-east, thereby affecting neighbouring countries. There‘s nothing we can do about the location of the earth,“ he said.

The worst smog hit in 1997-98, when drought caused by the El Nino weather phenomenon led to major Indonesian fires. The smoke spread to Singapore, Malaysia and south Thailand and cost $9 billion in damage to tourism, transport and farming. Some flights were unable to land in Pontianak, the provincial capital of West Kalimantan, on Thursday due

to thick smoke from forest fires, state news agency Antara reported. Parts of southern Thailand and western Malaysia have also suffered from the haze recently.

Southeast Asian countries signed the ASEAN Agreement on Transboundary Haze Pollution in 2002, but Indonesia has yet to ratify the pact.

Reuters
www.alertnet.org

Rain forest insects have normal appetites

A U.S. biologist's study supports the theory that the vast number of tree species in rain forests accounts for equal numbers of plant-eating insects. The findings by plant biologist George Weiblen of the University of Minnesota confirm what biologists since Darwin have suspected. „This is a big step forward in the quest to understand why there is so much biodiversity in the tropics," said Weiblen, principal investigator and senior author for the National Science Foundation-funded research.

His research showed insect species in tropical and temperate forests dine on about the same number of tree species, despite the more diverse menu in the tropics. „The tropical forest cafeteria offers many more options than the temperate forest," Weiblen said. „Our study confirms the choices tropical insects make are quite similar to those of insects in less diverse forests of places like Minnesota."

The study rejects an alternative theory that tropical insects are actually picky eaters that prefer fewer host plants than their temperate counterparts. The research appears in the Aug. 25 issue of the journal Science.

United Press International
www.upi.com

Schwarzenegger asks Bush to 'Terminate' forest roads

Arnold Schwarzenegger is asking the Bush administration to prevent roads from being built on unoccupied forestland in California. The 4.4 million acres of „roadless" land are currently inaccessible by cars. And the Governor of California wants to keep it that way.

Last year, the Bush administration lifted the ban that prohibits road building on forestland. The ban was created eight days before President Clinton stepped down in 2001, stating that one-third of California's forestland be preserved. The ban-lift opened about 60 million acres of land to possible road building and construction. But U.S. Forest Services claim there are no current plans to build roads on any of the designated areas, suggesting the possibility of reconsideration.

Four states - New Mexico, North Carolina, South Carolina and Virginia - also filed petitions to maintain their forestland. The U.S. Department of Agriculture has recommended to the Bush administration that it approve three of the four petitions.

On Tuesday, Schwarzenegger also appealed plans for four national forests in Southern California that would leave the areas of Angeles, Cleveland, Los Padres and San Bernardino unprotected.

Discovery Channel
reports.discoverychannel.ca

DNA technology to help fight illegal timber trade

The UK Department for Environment, Food and Rural Affairs (Defra) has awarded £15, 000 to a project which will, if successful, greatly advance the international monitoring of trade in timbers. UK Biodiversity Minister, Barry Gardiner, made the announcement during his visit to Kuching where he was discussing sustainable forestry and illegal logging. The pilot study will look at developing a novel DNA-based method for the forensic identification of tree species that can be readily applied by enforcement bodies in all countries.

Mr Gardiner said that the illegal timber trade is responsible for tropical deforestation, which in turn is recognised as a major factor in the loss of biodiversity and a key driver in global warming and climate change. "Effective enforcement of the decisions and resolutions made under the Convention on International Trade in Endangered Species (CITES) relies upon the identification of individual tree species, which can be a very difficult task. Under the current system, accurate identification requires a high level of botanical expertise and extensive wood anatomy collections, which can limit enforcement agencies' ability to investigate and counter illegal trade.

"If this project is successful it will waymark the development of a generic DNA-based method of identification, which could revolutionise the application of CITES to timber and enable enforcement bodies around the world to really get a grip on the illegal trade in timber."

The aim of the project is to provide proof of concept for the development of DNA-based timber identification techniques. The work will include all of the necessary stages in the production of a validated forensic test, focusing on a single target species. It will also provide a working species identification test that will demonstrate the utility of DNA techniques in CITES enforcement.

In particular, this will be relevant to trade in the Asian timber Ramin (*Gonystylus* spp.), which is found in the major range States of Indonesia and Malaysia and includes major importing countries in the EU, also USA and China.

The *Development of Genetic Techniques For the Forensic Identification of CITES-Listed Timber and Wood Products* is being conducted by the Royal Botanic Gardens Kew and Wildlife DNA Services Limited.

UK Department for Environment, Farming and Rural Affairs (DEFRA)

Environmentalists call for boycott of merbau wood products from europe's largest flooring brands

Europe's largest flooring companies are continuing to trade in merbau wood flooring of uncertain origin, despite evidence that the wood is likely to have been stolen from Indonesia's last remaining rainforests. Environmental groups are now calling for consumers to boycott their merbau products.

Four months ago the Environmental Investigation Agency (EIA) and Indonesian partner Telapak released dramatic evidence showing how much of the merbau timber sold as flooring by five giant European and North American flooring manufacturers had originated in Indonesia's chaotic Papua province, where illegal logging is rampant. Though many large retailers in the UK and US responded quickly by removing the products from sale, the European manufacturers, Junckers, Tarkett, and Kahrs, refused to follow suit.

"While we applaud the swift response of the large retail chains, we are appalled by the failure of the major flooring brands to take similar decisive action," said Sam Lawson, EIA Senior Forest Campaigner. "These companies are clearly more concerned with supplying the demands of consumers for cheap and fashionable flooring than they are with keeping their hands free of contraband wood".

Indonesia's Papua province is home to one of the last significant tracts of virgin tropical forest in Asia. The area has suffered an epidemic of systematic commercial illegal logging in recent years, with merbau trees the main species targeted. In early 2005, EIA/Telapak revealed how merbau trees worth more than a billion US dollars were being smuggled out of Papua every year, mainly for use in wood flooring. Subsequent investigations revealed how most of the merbau flooring on sale in the largest home improvement retailers in Europe and the US had originated in Papua and was of dubious origin.

Of the three major European brands, Sweden's Kahrs and Germany's Tarkett have refused to respond to EIA/Telapak's findings with any evidence to prove the legal source of their merbau. Denmark's Junkers has made considerable effort to investigate EIA/Telapak's findings but continues to use Indonesian merbau from the same supplier despite confirming that it originates in Papua and is of unknown source. None of the companies has been willing to pay for the independent audits which could ensure they are not buying stolen wood.

While some large retail chains have stopped selling merbau flooring from these companies, the many smaller chains, independent stores and internet outlets - which collectively represent the bulk of sales – have yet to do so. As a result, merbau flooring which may be made from the stolen trees of Indonesia's last pristine rainforests remains on sale across Europe and North America.

"If sales of stolen timber in places like Europe are not halted, Papua's forests will meet the same fate as those elsewhere in Indonesia," said Arbi Valentinus, Telapak Vice President. "Widespread deforestation will bring devastating floods and death and deprivation for poor forest dependent people."

EIA and Telapak are calling on consumers to stop buying flooring from the brand name companies until they have cleaned up their act. They are also calling for new laws in Europe to ban import and sale of stolen timber and wood products.

Environmental Investigation Agency
www.eia-international.org

Forest rangers report growing job dangers in USA

For the nation‘s forest rangers, the serenity of the woods increasingly is giving way to confrontations with unruly visitors. Attacks, threats and lesser altercations involving Forest Service workers reached an all-time high last year, according to government documents obtained by a public employees advocacy group. Incidents ranged from gunshots to stalking and verbal abuse. The agency tally shows 477 such reports in 2005, compared with 88 logged a year earlier. The total in 2003 was 104; in 1995, it was 34.

Among the more serious incidents, a Forest Service worker was run down by a man in a snowmobile in California‘s Lake Tahoe Basin Management area. The man pleaded guilty to assault with a deadly weapon. Also, Forest Service workers were shot at while trying to confiscate a marijuana plantation in California‘s Angeles National Forest. Two loaded shotguns and more than 78 kilograms of processed marijuana were seized.

The nonprofit environmental advocacy group said some of the blame for the growing violence in the woods is due to greater access to remote lands and waterways by motorized equipment. „Things like off-road vehicles are taking people into the backcountry to get away from all rules of civilization, and trouble appears to be ensuing," said the group‘s executive director, Jeff Ruch.

Agriculture Undersecretary Mark Rey, who oversees the Forest Service, did not disagree entirely with that assessment. He said that it was true that a huge increase in the use of off-highway vehicles had likely contributed to a rise in the number of assaults. „It doesn‘t mean the policy is bad or OHV users are bad people," he said.

Forest Service officials also put some of the blame for the growing violence on increasing border enforcement and drug-related activity. They say they suspect public lands have become more popular for marijuana gardens because of the vast remote locations patrolled only intermittently by law enforcement personnel. Rey said, however, that the group‘s 2004 report unfairly manipulated Forest Service data to make a political point and it was unfortunate the report seemed to be pitting one kind of forest user against another. „It doesn‘t assist law enforcement. It complicates it by singling one group out. That‘s unfair," Rey said. „Most of the assaults in 2004 were as a result of encounters with drunks, drug users or deranged environmental protesters."

Don Amador, Western representative of the Blue Ribbon Coalition, an Idaho-based group that advocates motorized recreation, took umbrage at what he described as an absurd report. „To try to lump off-roaders with drug dealers and other ne‘er-do-wells is just ridiculous," he said. Most ATV riders are

responsible and use designated trails, Amador said, adding there is no evidence that off-roaders are more violent than any other group that uses national forests. The only increase in crime in national forests he has seen is the growing presence of pot farmers. „That's my biggest concern. It's a serious issue and it needs to be addressed," Amador said.

Associated Press
www.mercurynews

Uganda: NGO appeals On Mabira Forest

President Yoweri Museveni should revisit his decision on degazetting part of Mabira forest reserve because this would affect the rainfall patterns countrywide, a forestry body has advised. Uganda Forestry Association (UFA) made the appeal at a press conference convened at Bugolobi yesterday. This comes in the wake of Museveni's directive to give 7,100 hectares of Mabira (a quarter of the reserve) to Sugar Corporation of Lugazi (SCOUL) owned by Mehta Group of Companies.

UFA president Ambrose Kyaroki appealed to Parliament to resist the temptation to change the land use of Mabira, saying it is part of the critical natural heritage and a potential tourist attraction.

Kyaroki, a former commissioner of the defunct Forestry Department, said Mabira was a vital water catchment for lakes and rivers, including Lake Victoria. „Further depletion of the forest by SCOUL will reduce the water flow of streams and rivers," Kyaroki said.

He said with water levels already low in Lake Victoria, such a change could decrease electricity production and that projects such as the River Sezibwa power plant, a proposed power-generating site, would be affected. Kyaroki said Uganda was violating global agreements such as the Convention on Biological Diversity (1992) that require establishment and maintenance of protected conservation areas.

The EU in particular, has invested funds and human resources into Ugandan conservation concerns, such as the restoration of Mabira Forest.

New Vision
allafrica.com

Kenya: fresh protests as government hives off Mau Forest

The Government has quietly carved out nearly 3,000 hectares of the delicate Maasai Mau forest for private use. The move, coming just months after scores of people were evicted from the forest in renewed efforts to save it, has stunned conservationists now demanding that the fresh move be immediately stopped. A map of the area obtained by The Standard shows it was surveyed between October 5 and November 13, last year, and again between December 23 and January 7.

The new boundary does not conform to the original that follow several adjudication sections declared in 1990 as per the Ntutu Commission, appointed by then President Moi. The portion carved out by Ministry of Lands surveyors is in Nkareta Adjudication Section, and is nearly three times the size of Karura Forest in Nairobi. The new surveyed boundaries are two kilometers into the forestland.

An important water catchment and conservation area, the Maasai Mau has been under siege from human settlement. In this regard, the Narc Government's decision to evict several thousand people who had been issued with title deeds was praised by conservationists as a bold effort to save forests in the country.

In 2004, conservationists and top Government officials agreed to honour the boundary recommended by the Ntutu Commission. It was on the strength of this conviction that the Cabinet later sanctioned the evictions.

A source familiar with the new survey said preparation of the maps was completed two weeks ago. They are now going through the final verification before being presented to the Lands minister for gazettement, added the source. The Standard was informed that when a team of surveyors first went to the site last year, a local politician attempted to persuade them to hive off a bigger portion, claiming he had legally obtained part of it. However, surveyors could not accede to his demands, but instead chose the new boundary as a „compromise" under the instructions of the then Director of Surveys, Mr Kombo Mwero, who has since been promoted to Permanent Secretary for Lands.

Several conservation and land rights groups have written to the acting Lands minister, Prof Kivutha Kibwana, protesting against the move. „The new boundaries do not respect the decision taken by the Cabinet last year to restore the Maasai Mau Forest and to remove all the people inside the forests. They are in contradiction with the Government's policy to increase forest cover in the country," the letter dated July 17 says in part. Officials from the Kenya Forests Working Group, Friends of Mau, Kenya Land Alliance and Friends of Mau Watershed signed the letter.

Yesterday, Mwero said the new boundary was marked to conform with „local practice in land use." He explained that as the custodian of the forest, it was Narok County Council officials who showed surveyors where the local authority wanted the forest boundary. „The line adopted was where the council guards were exercising their jurisdiction," he said, defending the move.

But the PS admitted the council, which holds the forest in trust, did not show surveyors any council resolution adopting the changed boundary. He said because the forest was like „any other private property" it was upon the council to decide how it wanted it used. Admitting he was at the scene when the surveyors were shown the council markings, Mwero described the politician's demands as „outrageous."

The new Director of Surveys, Mr Joseph Mathenge, declined to comment, saying a matter touching on part of the contested area was in court.

The East African Standard
allafrica.com

Has the World Bank learned lessons from forestry fiasco in Cambodia?

Global Witness welcomed the recent commitment of World Bank President Paul Wolfowitz to improve forest management in Cambodia, but questioned whether the Bank management has fully learned lessons from its failed Forest Concession Management and Control Pilot Project.

The president's statement came after a report by the Bank's Inspection Panel ombudsman condemned the Bank's five-year project, finding it had broken six internal safeguard policies, ignored the views of forest-dependent communities and failed to take on the Bank's key objective of poverty reduction. In response the Bank management has produced a remedial action plan committing to continued engagement in Cambodia's forest sector. It contains an assurance that future Bank forest projects in Cambodia will include consultation with people affected, support granting of land and resource rights to local communities and adopt community-based forest management approaches.

"The remedial action plan lays down some sound principles for future Bank engagement in Cambodia's forest sector, however it gives no guarantees as to what, if anything, the Bank will actually do or when it might do it," said Global Witness Director, Simon Taylor. "President Wolfowitz should task the Inspection Panel with monitoring progress to ensure the Bank management does go on from here to play a constructive role."

While the Bank has acknowledged some of the flaws in its project, wider questions of debt, accountability and the Bank's approach both to forest management and combating corruption remain unanswered. A key issue the Bank has declined to address directly is why the Cambodian people should have to repay a $5 million debt incurred via a project that yielded no benefits for them. Moreover, those responsible for the project have faced no action within the Bank.

"It is not enough for the Bank simply to say that it has learned lessons and moved on," said Simon Taylor. "In most institutions, employees breaching multiple regulations and producing expensively botched outcomes would face consequences. We see no sign of that happening in this case, which does raise questions as to what extent the Bank is accountable and to whom."

The Bank must now demonstrate that lessons from Cambodia are being applied across Bank forest sector interventions globally. This imperative is underscored by a recent Inspection Panel investigation into the Bank's forestry work in the Democratic Republic of Congo which has highlighted similar failings in project design and implementation.

The Cambodia experience has also highlighted fundamental deficiencies in the way in which the Bank engages in highly corrupted environments.

"The Bank's bungling in Cambodia stemmed from its insistence on engaging with mafia-style companies in a forest sector governed by corruption and high-level vested interests. If President Wolfowitz's encouraging moves to introduce a new approach to tackling corruption are to succeed, Bank management will have to reflect carefully on cases such as this one," said Simon Taylor "When it comes to natural resource management projects, the Bank's priority should be strengthening governance rather than lending technical support to the extraction process.

Global Witness

Ethiopia: afforestation curbs flooding in sustainable manner

Restoring the forest resources of the depleted areas of the country would curb the problem of flooding in a sustainable manner, a researcher working with the Forum for Social Studies (FSS) said.

The researcher, Dr. Daniel Kassahun, attributed the ever-increasing problem of flooding worldwide mainly due to climate changes globally, unwise utilization of natural resources, and population explosion.

Dr. Daniel told ENA last Saturday that the recent flooding in Dire Dawa town and South Omo occurred due to global climate change and depletion of natural resources in the respective areas.

The natural resources around the flood-hit areas had been depleted due to population explosion, he said, adding the people in various parts of the country have become vulnerable to flooding due to depletion of forest resources.

Close to 200,000 hectares of forest has been damaged in Ethiopia every year and 1 billion tons of soil has been washed away to lowland areas of the country per annum, according to the researcher.

Dr. Daniel said that afforestation and the conservation of natural resources should be carried out to curb the problem of flooding in a sustainable manner.

In fact, afforestation and natural resources conservation activities should not be confined to specific woredas or zones of the nation, he said, adding everybody should participate in the efforts geared toward the preservation of the natural resources.

According to the researcher, strengthening metrological services in the country and efficient utilization of information technologies for disaster pre-warning system would help to minimize loss of lives and property due to natural calamities until proving lasting solution to the problem.

The Ethiopian Herald
allafrica.com

Industrial disputes cause of forest fires in Swaziland

Industrial disputes within contractor operations at Sappi Usuthu are said to be the major cause of forest fires. As a result, the Task Force chaired by Michael Gama, recommended that Sappi should focus their energies in improving relations in contractor operations.

The report covering 2005/2006 season was presented by Gama at the Mhlambanyatsi Country Club in a function also graced by Minister of Agriculture and Co-operatives Mtiti Fakudze and chiefs under constituencies where Sappi Usuthu Forests are located and these are; Motshane, Mangcongco, Ngwemphisi and LaMgabhi.

Minister Fakudze also harped on the issue, noting that industrial disputes could have negative repercussions as dissatisfied employees could get back at management through forest fires. He said he recently saw a bulletin featuring some Sappi employees protesting at poor working conditions, imploring management to do something about the issue.

"The number of grass fires emanating from neighbouring communities still remained high when compared to the previous years.

In spite of the high number of fires reported in the plantation, the total lost area was about 100 ha and far less than the 10-year average of 1 000 ha per year.

"This good achievement was attributed to the fire awareness education, quick detection and response by the fire crews and co-operation with the local communities," Gama stated.

He said the public awareness education needs to be continued to reach all targetted individuals and communities. "The should be more focused on improving industrial relations in contractor operations. Sappi should continue to support employment of people from local communities. As quick detection and response time are key in the control of firs, Sappi should continue to develop and train her fire teams in order to sustain their capabilities",

The Task Force had recently incorporated Don Hlophe as vice chairman and he was introduced to the minister yesterday.

Some of the constrains and challenges cited by the tam include; transport unavailability, allowances for ministry of agriculture and Fire and Emergency Officers and poor attendance by Task Team members for public awareness education.

Recommendations were to the effect that the ministry's principal secretary (Noah Nkambule) had to specify vehicles to be used for ministry of agriculture Fire Task team members, government should consider compensation (incentive) for Task Team members working outside the specified hours and that the PS had to request Fire Task team members from other ministries/departments to attend public awareness education.

Again, three more representatives were requested from the Fire and Emergency department.

The Swazi Observer
www.observer.org.sz

Rate of African forest loss underestimated

The pace of deforestation in Africa has probably been underestimated by satellite imagery, lending new urgency to efforts to save the continent's wild treasures. „The consensus is that Africa is losing about 0.4 to 0.7 percent of its forests each year but this is likely an underestimate," said Holly Gibbs, a Ph.D. candidate at the University of Wisconsin who has been studying the phenomenon. She said deforestation in Africa has not been properly assessed because satellites have difficulty distinguishing between human-induced changes and seasonal climate changes which can deceptively cloak a stressed forest in a veneer of green.

„If you have rain over an open woodland forest, common to parts of Africa, it will ‚green up' or sprout flowers. If the satellite takes its image at that time it can have the impression that there is more forest as a result," she said, speaking at a conservation conference in the Malagasy capital. She also said that part of the problem is that net estimates are usually used. These allow young, regenerating forests and commercial plantations to offset rates of clearing, giving a false impression about the pace at which primary forest is being lost. „We have to move beyond net estimates and look at gross rates of clearing to be able to fully assess the impact of human land use changes on Africa's forests," she said.

Gibbs said more on-the-ground data was needed to get a clearer picture of African deforestation and that it was necessary to track the fate of cleared land. Land cleared in Africa by slash and burn farmers can lose its nutrients after a few years, forcing peasants to move on in a vicious cycle which depletes the forest and the soil.

According to U.N. estimates, Africa lost about 23 million hectares of forest in the 1980s and another 20 million in the 1990s. The stakes are high as deforestation on the world's poorest continent exacerbates a host of other problems. In Malawi forest loss has been associated with erosion of valuable soil which contributes to periodic food shortages.

Reuters
today.reuters.co.uk

COMMONWEALTH FORESTRY ASSOCIATION

"To promote the well-being of the world's forests and those who benefit from them"

CFA Membership Application Form

Please note that membership is for a calendar year not for 12 months from the time of joining (e.g. Someone joining in October would receive the journal and newsletter for March, June and September of that year when they joined. They would then be entitled to receive the December journal and newsletter when they were published).

Title: .....

First name: .....

Family name: .....

Phone no: .....

Fax no: .....

E-mail: .....

Address: .....

.....

.....

Postcode/Zipcode: .....

Country: .....

Annual subscription rates

Membership category *(circle as appropriate)*

Category		Cost (£)	Membership benefits			
			Membership of CFA	Newsletter (HC)	International Forestry Review (HC)	International Forestry Review online
Student - standard		10	✓	✓		✓
Student - plus		25	✓	✓		✓
Ordinary - standard	Developing country	10	✓	✓		✓
	Developing country	50	✓	✓		✓
Ordinary - plus	Developed country	25	✓	✓	✓	✓
	Developing country	65	✓	✓	✓	✓
Institutional member	Developed country	180	✓	✓	✓	✓
	Developing country	250	✓	✓	✓	✓
Institutional subscriber	Developed country	180*		✓	✓	✓
	Developing country	250		✓	✓	✓
National Forestry Association	Developed country	25	✓	✓	✓	✓
	Developing country	100	✓	✓	✓	✓

HC = hard copy

* 15% agency discount if ordered through a subscription agent.

Payment method (we would be grateful if you would pay by credit card where possible in order to reduce our bank costs – thank you)

☐ credit card - VISA / MASTERCARD

Name on card: .....

Card Number: .....

Expiry Date: ..... / .....

☐ Cheque (payable to"Commonwealth Forestry Association")

Send to Commonwealth Forestry Association
Crib
Dinchope
Craven Arms
Shropshire SY7 9JJ
UK

Tel.: +44 (0) 1588 67 28 68
Fax: +44 (0) 8700 11 66 45
E-mail: cfa@cfa-international.org