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East Kalimantan loses US\$ 100 million annually in timber revenue

The East Kalimantan provincial government is losing over US\$ 100 million a year in lost business tax revenue due to illegal logging and unreported timber processing, according to a report by Ferdinandus Agung Prasetyo and Krystof Obidzinski from the Center for International Forestry Research (CIFOR).

This does not include the intangible costs of the loss of biodiversity and water services. Nor the future social cost of natural disasters and loss of jobs from forest destruction.

"Demand for timber is far exceeding the amounts that can be produced sustainably," Prasetyo said. According to the CIFOR study, East Kalimantan's timber industry has the capacity to produce about 9.1 million cubic meters of wood a year. For all of Indonesia the capacity exceeds 60 million cubic meters. This is in stark contrast to the Ministry of Forestry's allowable cut of 5.7 million cubic meters in 2004.

"If we make the fairly standard estimate that the industry in East Kalimantan is working at only 60 percent of its potential capacity, then the need for timber in the region would be around 5.5 million cubic meters," Prasetyo said.

"But figures for the past five years show that the official quantity of log production from natural forest has been around 2.1 million cubic meters per year. Subtract this official figure of 2.1 million cubic meters from the 60 percent estimated output, and you have a deficit of 3.3 million cubic meter of logs. This 3.3 million cubic meters of timber is being processed without any taxes being paid to the provincial government.

"As if that's not bad enough, there's also the lost revenue incurred through illegal timber smuggling to neighboring countries. This was over two million cubic meters in 2000," Prasetyo said.



Prasetyo said that in total, undocumented timber processing and illegal logging amount to a loss of Rp 856 billion a year - about \$US107 million a year - half the annual revenue of the region.

"This is money that could be spent on poverty reduction programs, job creation schemes, new schools and health centers."

These days the price of timber is decreasing despite a rise in demand for wood and a decline in the legal production of timber.

"Given falling supply and increasing demand, economics dictates that prices should be rising," said Obidzinski. "That prices are not going up means there is an oversupply of timber on the market. And the supply appears to be from illegal or at least undocumented sources. This timber costs less because the suppliers do not have to pay tax or meet the other financial obligations associated with legally producing timber."

Prasetyo thinks the days of East Kalimantan being the main source of timber to Indonesia are over.

"In 1974, official government statistics listed the region as producing 6.6 million cubic meters of timber. The estimate of the Ministry of Forestry for 2004 is only 1.6 million cubic meters," Prasetyo said.

The decline in output is due to a number of causes. These range from the 1997/98 forest fires and recent land use changes, through to unsustainable and illegal logging, which is also contributing to the steady deforestation of East Kalimantan.

Obidzinski says there are many issues underpinning illegal logging. One of them is the lack of law enforcement, although Obidzinski is quick to add it is not the main reason. "The most significant underlying cause of illegal logging is the client-patron relationship. Illegal logging is difficult to eliminate because both suppliers and purchasers benefit from the profitability of the trade, especially by evading tax," Obidzinski said.

Current timber prices are reaching as low as US\$45-50 per cubic meters. These levels are bound to make legal timber production unprofitable. Another reason for the low prices is that workers involved in illegal logging earn much less than legal workers because of their poor bargaining position.

Illegally logged timber is hauled out of the forest in East Kalimantan, Indonesia. Illegal logging may cost the Indonesian Government as much as US\$ 3 billion annually in lost tax revenue. (Photo by Krystof Obidzinski)

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Involving women in forest management and monitoring activities helps them earn their share of the benefits.
(Photo by Eva Wollenberg)

'Men in a dress?' gender, equity and forests

Giving women forest dwellers equal rights in community forestry is not easy, especially when local culture can be very different to what outsiders might expect. Gender and equity are crucial to the success of community forest management, allowing women, and other marginalized groups, to participate effectively in processes of good governance in forests. A soon-to-be-published book* edited by CIFOR researcher Carol Colfer describes the important role that gender and equity play in effective community and forest management, but also highlights the wide differences to be found across the world.

As experience in Bolivia shows, bringing pre-conceived ideas about gender to the forests can be quite problematic. Communities in Salvatierra in eastern Bolivia have been developing a forest management project within a system of communal land rights with the assistance of the Bolivian Sustainable Forestry Project since 2001. The project requires large-scale collective action over extended periods. Adding timber management to a swidden agriculture system meant that residents needed to change their behaviour to meet their subsistence needs to free up labour for the new activities.

In Salvatierra's households, although there is a distinct division of labour, both men and women work in the fields. Men clear forest for swidden fields, and hunt and travel to market. Women gather firewood, fetch water and take care of most domestic chores.

"We realized that for most foresters, resistance was not based on male chauvinism," said Peter Cronkleton, an anthropologist and CIFOR's project facilitator in Bolivia. "Many simply did not think forestry was a relevant topic to discuss with women."

Project planners had assumed forest management was not a traditional activity for women because they could not do the heavy work involved in logging. In fact, women were just as capable as men at learning to measure and tag trees, record data and monitor harvested timber volumes - tasks that required skill and not brute force.

Involving the women in the work meant they could earn their share of the benefits from the project. "If a project does not provide equitable benefits, or is perceived to treat some segments of the population unfairly, opposition to the project could develop," Cronkleton said. "Including women is not only a question of equity. It is crucial for project stability and for promoting local control." In fact, once the women were included, they had a positive influence on the project, improving social control and decision-making.

Bringing women into a community forest project was

also a problem in Bamdibhirkhor, Nepal. Decision making is an important function in forest user groups and requires the participation of the whole community. But, in practice, disadvantaged groups are frequently marginalized in Nepal. Women must work in the home and poor people must work for wages. "These obligations interfered with their ability to attend meetings, and so they were less aware of the decisions being made," said Sushma Dangol, a facilitator in Nepal. "And women's voices in such decision-making fora were often ignored, further inhibiting their willingness to speak out." The women, marginalized castes and poor people also had little time for training, workshops and study tours. They were too busy in the home gardens, collecting forest products, and in some cases working on other development projects in agriculture, health and education.

Project workers made extra efforts to involve these groups so that they are routinely involved in planning, decision making and all other forest-related activities. There is also greater recognition among the traditional elite about the importance of involving them in meetings and community activities, so as to improve their well-being and strengthen sustainable forest management. In matters of benefit sharing, however, there remains a lot to be done.

An even greater gender problem faced community projects in Zimbabwe - the attitude of the women themselves. In the Shona society in Mafungautsi, women wield a significant amount of informal power. Although men might hold important public roles and women defer to them, in many cases they exert relatively little power. Bevyne Sithole, a CIFOR consultant at the time of this research and now co-leader of CIFOR's Program Development Unit, found that women derive their power from extensive private networks and from their roles as wives, witches, mistresses and politicians. Women were unwilling and uncomfortable participating in committees. They remained silent to maintain the illusion of male

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Major event on gender and forestry, 1-10 August 2004, Tanzani

The Second Worldwide Symposium on Gender and Forestry, in Arusha, Tanzania, will focus on women and forestry, gender, poverty and sustainable development, forest resource utilization and income generating activities for local people, ideology, religion and environmental responsibility.

Interested parties may still be able to organize roundtable workshops on related themes, or to submit abstracts for papers and posters by contacting Dr. Merete Furuberg, Hedmark University College, Evenstad, 2480 Koppang, Norway. Email: merete.furuberg@hedmark-f.kommune.no. (Telefax: +47 62 945753, Telephone: +47 90 163092) or Prof. Ruth Meena. email: envirocare_2002@yahoo.com

Organizers: University of Dar-es-Salaam, Sokoine University, College of African Wildlife Management, Mweka - all in Tanzania; Gender & Forestry Research Group, and the Special Programme for Developing Countries, IUFRO; Hedmark University College, Norway; Environmental, Human Rights Care and Gender Organisation; CIFOR.

Old plots stand the test of time

Old plots of trees in a Ugandan forest are still providing valuable data 40 years after they were first measured. And they are showing that there is no substitute for long-term data collecting to give real insights into forest growth. Douglas Sheil, a CIFOR researcher, revisited tree plots that were originally established during the 1930s and 1940s by W.J. Eggeling, an English forester, in Budongo, a Ugandan rain forest. The Budongo plots are believed to be the oldest surviving in the humid tropics.

"We need a better way to predict how tropical forests react to external influences," Sheil said. "In this case, the long-term plots allowed us to recognise potentially major, yet unanticipated, drivers of forest change." These influences leave their impression on the process of succession in the forest that can be seen in the analysis of age location and composition.

In Sheil's opinion, these plots offer a unique window on long-term change. "We have all learnt to place great importance on spatial sampling as this determines many of the choices and assessments we make as researchers," observed Sheil. "We have forgotten the worth of extended study periods to observe reality."

Old forest plots remain a rich vein of understanding and insight even though replication is a problem. "Surviving plots are often single," Sheil said, "But the

continuous cycle of crosschecking and verification over time lets us identify and correct problems that are considerably more prevalent, though rarely acknowledged, in short-term studies."

"Careful observation and description provides the material for understanding," concluded Sheil. "Permanent plots should play a central role in our studies of tropical forest but we need to recognise both their benefits and limitations."

Sheil, D. 2003 Observations of long-term change in an African rain forest. In: Hans ter Steege (Ed.) Long-Term Changes in Tropical Tree Diversity as a Result of Natural and Man Made Disturbances: Studies from the Guiana Shield, Africa, Borneo and Melanesia, Tropenbos Series 22:37-59. Wageningen, the Netherlands. PS/DS



This tree plot study in Budongo, Uganda, started in 1933, now provides the longest running data series from any tropical forest. (Photo by Douglas Sheil)

East Kalimantan loses (from front page)

Prasetyo and Obidzinski suggest a number of solutions to the illegal logging problem. Restructuring the timber industries, increasing the supply of timber from plantations and improving the management of natural forest would reduce illegal logging and slow down deforestation. Other solutions include making timber industry regulations more transparent and improving law enforcement practices.

Prasetyo says the Ministry of Forestry seems committed to overcoming illegal logging, but faces an extremely difficult challenge.

"We've recently seen the Minister for Forestry, Pak Muhamad Prakosa, trying to engage Malaysia and Singapore's help in preventing the import of illegal timber from Indonesia. And the Ministry has identified the fight against illegal logging and the restructuring of the timber industry as two of its five priority areas.

"But illegal logging is a complex issue involving many players. To succeed, the Ministry of Forestry also needs the help of other government agencies, industry, local governments and the military," Prasetyo said.

Forestry is the main source of livelihood in East Kalimantan. If illegal logging is not properly addressed, Prasetyo and Obidzinski predict unemployment in the region will increase due to the short-term benefits and unequal distribution of profits from the business of illegal logging.

"Without a whole-of-government approach and greater public and industry awareness and responsibility, illegal activities will be impossible to control. This will harm not only the environment but also the economic future of the region," Prasetyo said. PS/GC

Men in a dress? (from page 2)

dominance. "Even within women-only groups, we saw a trend to coopt men to maintain this status quo and the illusion of male dominance in public decision-making structures," Sithole said.

The unwillingness or reluctance of women to "become men in a dress" meant that Western notions of inclusive democracy just did not apply in certain social settings. "We are rethinking gender advocacy to focus on ways of involving women in decision making that are more acceptable to them," Sithole said.

"People have known for a long time that gender involved a lot of inequities in terms of involvement in decision making and access to resources," Colfer said. "The research highlighted here represents a sprinkling of the results from our studies of adaptive collaborative management in 30

sites. In The Equitable Forest, the authors look at gender and diversity issues specifically related to management of forests by communities, and provide insights into what does work in different contexts."

Ultimately, economic, social and environmental issues must be balanced, with bottom-up as well as top-down perspectives. "These studies give practical guidance, based on their efforts to protect the livelihoods of the poor and vulnerable groups such as women, while mobilizing their creativity and human resources for the betterment of local environments and communities," concludes Colfer. PS

*The Equitable Forest, edited by Carol J. Pierce Colfer, and published by Resources for the Future and the Center for International Forestry Research, Washington, D.C. — due for publication, June 2004.

A future for mahogany

Mahogany is a rare and beautiful timber that has been logged almost to extinction in many countries. Illegal loggers are driving ever deeper into South American forests in their search for the highly prized, dark red wood, sometimes bringing with them disease, slavery and violence.

Amongst the frenzy of unsustainable logging, some groups are trying to secure the future of mahogany. In November, 2003, CITES, the Convention on International Trade in Endangered Species, required producer countries to define sustainable rates of harvest and limit their exports to that amount of mahogany timber. Aware of the threats to the species, US and European countries have rejected Brazilian mahogany exported under fraudulent permits. The Brazilian government now has actually suspended all mahogany logging.

At the same time, local people are taking their own actions. "Forest owners are experimenting with ways to manage natural forests to guarantee the future of this magnificent wood," said CIFOR's Laura Snook, who has been studying mahogany in the region for many years. Foresters and forest owners in Mexico have delineated production forests and annual cutting areas, defined annual harvests based on inventories, applied management plans and planted mahogany seedlings to enrich the forest. These environmentally and economically sustainable techniques are providing livelihoods to thousands of rural people while conserving hundreds of thousands of hectares of tropical forests.



This mahogany tree was planted as a seedling on a burned clearing 1 ha in size, produced using slash and burn techniques. At 58 months, the tallest individuals growing on these types of clearings, averaged 6 m in height. (Photo by Laura Snook)

Forest researchers are also joining together to find ways to provide mahogany producers with technologies and strategies to ensure the survival of mahogany, their tropical forest homelands and the rural livelihoods they provide. An international workshop on sustaining mahogany, sponsored by CIFOR, in Chetumal, Mexico in November 2003 built on the results of seven years of collaborative research in Mexico and Belize to develop strategies to ensure that mahogany can be harvested and regenerated to continue to provide livelihoods for rural workers and their families.

Snook has worked for years on silvicultural management of natural forests in the Maya Forest region. In Mexico, she and fellow researchers

Luisa Camara-Cabrales and Patricia Negreros-Castillo, have collaborated with Victoria Santos, the forester responsible for managing hundreds of thousands of hectares of community forests for the Organización de Ejidos Productores Forestales de la Zona Maya. In Belize, Snook has worked with the Programme for Belize, an NGO that manages 4% of the land area of the country, and with a series of graduate students from around the world, including Marcia Toledo-Sotillo of Peru. Many of the conclusions from the 10 studies they've carried out provide essential foundations for the sustainable management of mahogany forests.

Attendees at the workshop learned that research had confirmed the anecdotal observations of foresters, that mahogany seedlings do not survive under the forest canopy, along skidtrails or in small gaps produced by felling trees. "Mahogany trees regenerate and grow best in clearings measuring thousands of square meters that are opened by slash and burn agriculture, fires or machinery," said Snook. Foresters are now making efforts to harvest multiple-species to create similar openings large enough to favour regeneration.

"We also found that mahogany trees with diameters greater than 75 cm should be retained as seed sources," said Camara-Cabrales. "They produce much more seed than smaller diameter trees and produce seeds more consistently."

The foresters, government agencies, and forestland owners who participated in the meeting also made recommendations on governance and policy. For example, that management of the nearly one million ha of natural forests in the region should be given more weight in the action plans of state governments and other agencies, along with their support to plantations, reforestation and agriculture. Greater collaboration among the different agencies whose actions affect forests would also make sustainable forest management a better land use option. For example, support for cattle ranching and agriculture should be designed not to undermine forestry activities. In addition, issuing export permits locally rather than from Mexico City would reduce the disincentives for local producers to export mahogany, for the higher returns available on the international market.

"Industrial logging has exhausted much of Latin America's accessible mahogany," said Snook. "But the communities of Mexico are learning how to bring the mahogany back." If mahogany producers in Brazil, Peru and elsewhere pay attention to both CITES and the technologies and strategies from the Chetumal workshop, not only the species will benefit, but also those who depend on its commercial production. Ultimately, this will favor both the conservation of their tropical forest homelands and sustainable livelihoods for the people who depend on them. PS/LS

Forest on the pen's edge: Writing workshop

Capacity building.

No matter how good the research, its findings will only be widely read and understood if the final report is well-written and accurate.

To help build the capacity of collaborative research partners in writing reports, CIFOR recently held a writing workshop for a number of regional partners working on decentralization and forest issues.

The workshop, *Can Decentralization Work for the Forest and the Poor?*, ran from December 7th 2003 to January 2nd 2004 at CIFOR's headquarters in Indonesia. The workshop aimed to strengthen CIFOR partners' writing techniques, to use appropriate methodology and data and, eventually, to produce quality final reports.

With CIFOR covering the cost of the workshop, partners from far-flung regions of the Indonesian archipelago were able to attend.

After discussions with CIFOR national scientists, the participants worked on writing technical reports. They also improved their research methodology and interpretation of data, using easily understood tables and diagrams, and were assisted in sourcing supporting literature by CIFOR's library staff. Participants then presented their draft report for review by international and national scientists at CIFOR.

Organizers of the workshop, Mochamad Indrawan, Heru Komarudin, Ronny Syam and Yulia Siagian, were all pleased by the participants' feedback, which suggested the support offered by CIFOR staff boosted the partners' confidence in themselves and their data.

Bambang Nugroho, from the University of Papua, took advantage of the workshop to fine tune his report

on the *Impact of Decentralization Implementation on Forest and Local People in Papua*.

"Because of the workshop, I was able to produce a more comprehensive and complete draft of the project's final report," Bambang said.

Iman Suramenggala, of the Pionir Foundation in East Kalimantan, re-worked his report entitled *Impacts of Local Forest Policy on Finance Sector and Land Use in Bulungan District, East Kalimantan*.

"I would have liked the workshop to go longer, but it was still very useful in making my writing more structured and focused, and providing a supportive environment to concentrate on writing," said Iman.

Another participant, Zulkifli, from the Borneo Conservancy Foundation in Pontianak, said the useful input from CIFOR enriched the substance and analysis of his report, *Forest Policy in the Era of Decentralization, Kabupaten Sintang, West Kalimantan*.

Similar sentiment was expressed by Sudirman, from the Centre for the Study of Regional Autonomy Law and Policy in Sumatra, who said the workshop allowed him to focus on his writing and analysis in *Legal Analysis on Forest Decentralization Policy in Tanjung Jabung Barat District, Jambi Province*.

To read the decentralization reports, please contact: Sian McGrath s.mcgrath@cgiar.org or Yulia Siagian y.siaagian@cgiar.org. MJ, RS, YS, HK

CIFOR makes important biodiversity discovery

A recent "discovery" by CIFOR scientists in Indonesia underscores how much there is still to be learned about the extent of the world's biodiversity. The *Rafflesia* flower, named after the 18th century Singapore and Indonesia colonial administrator, Thomas Raffles, was originally found in Sumatra.

Only a couple of decades ago, a new addition to the 15 or 16 known species - *Rafflesia pricei* meijer - was found in Borneo. First in Sabah, and then in Brunei and Sarawak, but not in Kalimantan - that is until now. A chance discovery in the Malinau Research Forest, site of much of CIFOR's work in East Kalimantan, and a near simultaneous "discovery" in the neighboring Kayan Menterang national Park, forces us to re-think the distribution of this rare species. Prior to this, no species of *Rafflesia* had been seen in East Kalimantan for nearly 80 years and known populations appeared extinct.

The *Rafflesia* is famous not so much for its famous namesake but for the fact that it include the world's largest flowers, measuring close to a meter in diameter. They are also well known for their most unflower-like behaviour: giving off a rancid meat smell three or four days after blossoming. So bad is the smell that botanists in the early 20th century described its insect-ridden and putrefying leaves as a "vegetable monster."

Of course, as always with mother nature, the *Rafflesia* behaves the way it does for good reason. In this case, the vile odor attracts flies for pollination. Pollination is

believed to be further enhanced by small mammals eating the fruit of the plant and distributing the seeds through their droppings.

"This discovery in Malinau is only the tip of the iceberg and reminds us that the true extent and value of tropical forest biodiversity remains an unknown quantity," said CIFOR researcher, Douglas Sheil. CIFOR's surveys in Malinau have already detected a number of plant and animal species previously un-described by science, and some of these have local uses.

"Only a fraction of known species has been examined for potential medicinal, agricultural or industrial value. The *Rafflesia* is a case in point. In Malaysia it is used as a traditional medicine by women to recover after pregnancy. But little is known about this, let alone about other possible medicinal uses or the role the *Rafflesia* plays in the well-being of the rainforest and the global environment," Sheil said.

The species in Malinau was "discovered" purely by chance when a CIFOR team stumbled across a 30 centimeter flower while undertaking biodiversity research into the endangered honey bear and bearded pig. PS/DS



This rare *Rafflesia* species was thought to exist only in Sabah until recent findings were made in Brunei, Sarawak and near CIFOR's research site in East Kalimantan. (Photo by Beruang team project)

China's timber imports raises concerns

Following the death in 1998 of more than 4,000 people due to floods blamed on excessive deforestation, China implemented a widespread ban on logging. The ban seems to have been good news for China's forests. But there are fears that as a result of the ban, China's import of timber is now exerting enormous pressure on the forests of South East Asia and eastern Russia, often in the form of illegal logging.

In response to this international concern, CIFOR and Washington-based NGO Forest Trends have launched a multi-partner project that will increase the level of intelligence available about timber demand and trade in China and the impacts this will have on conservation and livelihoods.

China's import of round wood in 2002 totaled 16 million cubic meters, some 16 times more than the figure for 1997. It is estimated this figure will reach 100 million cubic meters by 2010, accounting for half of the total annual demand in the country. Research undertaken by CIFOR and Forest Trends shows that the value of China's total timber, pulp and paper imports soared 75% to \$11.2 billion in 2002 from \$6.4 billion in 1997. Such a high demand has serious implications for global forestry conservation.

economies, and on the environment. That is why CIFOR has brought together scientists from around the world to work on this project."

Andy White, a Senior Director with Forest Trends, says there is no mechanism to monitor how China's import of timber will affect markets and the environment. "China's booming imports fuel illegal logging, unsustainable trade and poverty. Currently there is little knowledge of how to influence policy in China. There is a lack of understanding of the strategic leverage points to affect policy, lack of knowledge in the public arena about Chinese and regional market structure (and) limited capacity to conduct market analysis. In summary, we are missing the basic building blocks to launch effective development initiatives," says White.

White says the project will strengthen regional networks, identify leverage points where advocates can effect change and develop policy frameworks.

Project activities include identifying impact trends and impacts on livelihoods and the environment, analyzing key supply and demand trends in China affecting imports, analyzing financial flows driving regional timber trends, regulating frameworks that affect finance and due diligence and identifying opportunities for low income producers in East Asia to benefit from Chinese imports

Meanwhile, a three-year study released in December 2003 titled "China Wood Trade, Market and the Environment" by WWF - one of the project partners - says policies in China to promote economic development have stimulated a much greater demand for wood and wood products. WWF acknowledges that China has made a good start in areas such as forest restoration and forest sustainable management. But the report also encourages China to undertake a number of other initiatives, particularly in the areas of environmental protection, promoting environmentally sound timber production and the use of wood substitutes, examining licensing and quota systems for timber production and harvesting, encouraging the import of timber from well-managed forest resources, and reducing imports of illegally logged timber. GC



Wood chip processing plant, Guangdong, China. (Photo by Christian Cossalter)

"You have a country that is growing at eight to nine percent, where its own domestic supply of forest products is decreasing, so it has created a huge demand for forest products from the region," says Kaimowitz, CIFOR's Director General. "The growth and changes in China will have a strong impact on livelihoods, jobs and people transforming forest products. We will also see considerable impact on local and neighbouring

Key partners in the project include: the Chinese Center for Agricultural Policy, the Chinese Academy of Forestry, the International Tropical Timber Organization, World Agroforestry Centre, Foundation for People and Community Development - PNG, Bogor Agricultural University, Indonesia's Ministry of Forestry, University of British Colombia, Economic Research Institute - Russia.

Bigger trees

Tree growth, estimated from changes in the size of the stem, are used in many aspects of forest science. But recent research is questioning the accuracy of the measurements used in many published studies. It now appears tropical trees swell and shrink quite significantly during the day. A behaviour that is not related to actual growth at all.

Foresters use various methods to measure the size of tree stems. One early-developed method is to get an average measurement by wrapping a measuring tape around a set of carefully marked horizontal lines. Though this "Dawkins" method can be very accurate, it is unfortunately very laborious. Two people may be needed and in some cases they have to use ladders on each side of the stem to get up above the buttresses. A second more popular method uses band dendrometers: metal bands that are fixed around the tree, with a scale that indicates any change in diameter. The bands can be left where they are and once in place it is quick and easy to take an apparently precise measurement off the scale. However, these dendrometer band measures have not been critically assessed.



Meilinda Wan measures a tree stem in CIFOR's Camp Seturan, in Malinau, East Kalimantan.
(Photo by Douglas Sheil)

The diameter of a tree stem changes as water is used and replaced. Trees have a reservoir of water in their stems and transpiration demands mean that the tree's vessels carrying the water expand and contract depending on the time of day, weather and water supply. In the tropics a tree with full foliage standing in bright sunshine will use up all the water in its stem. One study in Panama found that about 54 kg of water may be removed from stem storage in a 35-m tall, 1-m diameter tree during the day.

Band dendrometers have, understandably, become the technique of choice for precision growth studies. But a comparison by CIFOR researcher Douglas Sheil in the Malinau Research Forest in Kalimantan, Indonesia, revealed some alarming differences. "The dendrometers are supposed to be accurate to 0.1 mm," said Sheil. "But they only recorded less than a tenth of a millimeter change in just a few stems." In contrast, the Dawkins method showed all eight stems shrinking by about 1 mm, or 0.1-0.2% of stem size during the day. "We occasionally recorded changes of over 2 mm," said Sheil. The problem is that the dendrometer bands underestimate changes in stem size involving alternating shrinkage and expansion. "Friction probably holds the band fixed while the stems shrink," said Sheil.

Although apparently minor, the errors can influence yield studies. In a forest with an above-ground volume of 400 m³ /ha, then a measuring error of 0.1% represents about 0.8 m³ /ha of tree volume, while a 0.3% bias shows about a 2.4 m³ /ha difference. A survey of the literature confirmed that these measuring differences appeared in published research. Over the years, papers reporting band studies consistently showed small fluctuations of up to 0.1 mm in size, while studies using other methods, found changes up to 10 mm. Numbers like these are large enough to affect the accurate evaluation of woody growth however, Sheil is quick to add that this claim would require further research. Misinterpretations seem especially likely when the true growth over any measurement interval is small, or when measurements are made under different conditions.

"These patterns of diameter change and associated growth assessment errors are complex and require further study," said Sheil. "Just as long-term sea level changes would be difficult to assess from intermittent records if tides were not recognized, the evaluation of tree growth must consider both long- and short-term fluctuations". PS/DS

Nature, wealth and power to defeat poverty in Africa

Many rural Africans remain mired in poverty, falling behind the rest of the world, even after 20 years of natural resource-based development. Natural resources, land, minerals, forests, wildlife and water are central to the livelihoods of 70 percent of the African population. They are a major source of wealth and power in Africa. But natural resources are often mismanaged, rural people are often largely disenfranchised, and growth has not always benefited the rural poor.

Programmes that integrate nature (sound natural resource management), wealth (economic growth and poverty alleviation) and power (good governance, empowerment and enfranchisement) have proven to be successful. Taken together, these three linked elements can increase the productivity of the resource base and conserve biodiversity, generate economic growth for local communities and national accounts and, most importantly, empower people and lead the way towards a more democratic and decentralized management.

These are the conclusions Jon Anderson of USAID presented to an international workshop in Ouagadougou on the theme "Nature, Wealth and Power". He was quoting from a discussion paper that he, along with other staff from USAID's Africa Bureau, CIFOR and other partners, had compiled. "This document presents principles and action steps that can serve as a guide to investment that could revitalize rural Africa," said Anderson. "We are building on lessons learned from more than 20 years of natural resource-based development in rural Africa."

CIFOR organized the meeting in Burkina Faso in February 2004 in partnership with USAID and with the participation of researchers from Asia, America and Africa. "We should not accept poverty as an inevitable situation," said Basile Guissou, Director General of the National Centre for Scientific and Technological Research, in his opening comments. "Sound economic management

must be taken into account by all countries concerned, especially Burkina Faso, in fighting poverty."

Dry lands and dry forest play a major role in the national economies of countries like Botswana, Burkina Faso, Mali, Mauritania and Senegal. Across Africa, drylands occupy 43 percent of the continent. They are home to 268 million people, some 40 percent of the total population. Lack of investment in this sector could easily slow the countries' rates of economic growth.

During the workshop three particular subsectors important to drylands countries were considered: fuel wood, non-timber forest products and farming, and conservation and rehabilitation. "Identifying drivers of and approaches to sustainable natural resource management needs constant reconsideration and refinement," said Anderson. "The nature, wealth and power framework may be useful in developing a more realistic and field-oriented approach."

Daniel Tiveau, who runs CIFOR's drylands project in Burkina Faso, summed up the Burkina Faso meeting by saying nature wealth and power raise a number of challenges. "These need to be addressed with an appropriate land tenure policy, an effective partnership between the State and the communities, empowerment of the rural populations, good governance and transparent management of natural resources."

CIFOR complemented the Burkina Faso workshops by participating in national dialogues on natural resources, poverty and governance in Mali in February 2004. Working with partner organizations USAID and World Resources International, CIFOR staff organised a series of seminars on Nature, Wealth and Power: Emerging Best Practice for Revitalizing Rural Africa with a wide range of audiences at the regional and national levels. Each of the seminars targeted a particular constituency, like NGOs, technical staff, the USAID mission, researchers, elected officials and the Prime Minister's staff. The workshops successfully stressed the links between resources, economic performance and governance and identified key policy and research issues. "There is great potential benefit to undertaking workshops like this in other countries of West Africa and in the Congo Basin in partnership with CARPE (Central African Regional Program for the Environment) and other institutions involved in the Congo Basin Forest Partnership," said Ousseynou Ndoeye of CIFOR Cameroon.

Progress on rural poverty in Africa is not a luxury - the fate of Africa's economic and development future cannot be separated from the management of its natural resources. PS



Burkina Faso dry forest coordinator Daniel Tiveau and Basile Guissou, Director General National Centre for Scientific and Technological Research at the opening ceremony of the CIFOR/USAID Nature, Wealth and Power workshop, held in Ouagadougou February 6-7th 2004.

Principles to guide NRM investments in Africa

Nature

- Improve information and knowledge management systems
- Promote local land use planning and appropriate resource tenure systems
- Foster innovation, social learning, and adaptive management
- Build capacity and invest in human resources
- Promote cost-effective technical advisory and intermediary services

Wealth

- Be strategic about the economics of natural resource management
- Strengthen markets and NRM market incentives
- Invest in rural organizations
- Create a framework for better NRM choices
- Assure local resource managers have secure access to NRM means and benefits

Power

- Strengthen environmental procedural rights for rural people
- Improve rural input into public decisions and policy
- Redistribute natural resource authority and functions
- Transfer powers, rights, and responsibilities to representative and accountable authorities
- Explore a minimum environmental standards approach
- Promote platforms that allow for continuous and inclusive consultations.

Box reproduced, with permission, from "Nature, Wealth, and Power. Emerging Best Practice for Revitalizing Rural Africa," a discussion paper prepared by Jon Anderson and the Environment and Natural Resources Team of the Sustainable Development Office in USAID's Africa Bureau.

Understanding local forest needs in Cameroon

In the village of Nkolbibanda, 50 kilometers south of the Cameroon capital of Yaoundé, CIFOR research is providing a better understanding of the environmental needs and priorities of the communities living next to the Ottotomo Forest Reserve.

Covering an area of 2,950 hectares, the Reserve was gazetted by the French colonial government in 1930 and remains off-limits to human activities other than the occasional collecting of non-timber forest products.

The inhabitants of Nkolbibanda belong to the Ewondo ethnic group and are largely dependent upon agriculture for food and income. Their primary sources of food include shifting cultivation, some plantation crops such as cocoa and increasingly palm oil, traditional forest products and bush meats such as palm rats, porcupines and antelope.

At the time the reserve was gazetted, traditional territories were not taken into account, including those traditionally accessed by the people of Nkolbibanda. But in the past 15-20 years, the population in the area has grown considerably, putting considerable pressure on local natural resources and resulting in increasing levels of conflict between communities and the reserve management.

CIFOR has been playing a leading role in improving relations between local communities, local NGO's and forest administrators. The current Multidisciplinary Landscape Assessment (MLA) project, led by CIFOR researcher Marieke Sassen, aims to enhance this process.

"We hope the outcomes of this project will serve as a basis for improved dialogue between all stakeholders, and lead to better decisions about the management of the reserve and the surrounding area," Sassen said.

Using an approach developed in East Kalimantan, Indonesia, Sassen and her team of researchers undertook a survey in 2003 involving both conventional biodiversity surveys and an assessment of local people's needs and perceptions.

The MLA approach aims at enhancing the understanding between development practitioners, local policy makers and forest communities. It will also help improve policy decisions that affect the local population and enhance the long term sustainability of the forest and its inhabitants.

Marieke and her team have used a variety of research methods to explore the importance people attach to their tropical rainforest landscape. Conducted with men and women, both young and old, these methods include different forms of meetings. For example, 'Community Meetings' help compile historical data such as land use and village history, while 'Exercise Meetings' provide a "valuation" of landscape elements and animal species and their uses. Other techniques include participatory Mapping Meetings and Field Surveys and require building high levels of collaboration and trust with participants.



Young men in Cameroon participate in a scoring exercise to determine the relative importance of different land types. (Photo by Marieke Sassen)

Not surprisingly, the initial analysis of survey results has shown that the forest is the second most important landscape unit behind the village. This raises one of the most challenging aspects of CIFOR's research: how to help villagers find the right balance between improving their food production and their need to sustain forests as an important source of land and of products that can be harvested?

People are aware of forest functions. They know, for example, that trees "protect" the forest, how seed dispersal is necessary for tree regeneration and how certain animals play an important role in this. They also know which activities damage the forest; including many they practice themselves, like cutting down trees and burning. However, when it comes to their own

activities, they feel they do not have a choice if they want to practice agriculture and sustain themselves. As one elder men said, "That is just the way we are, we eat (something) until it is finished and then we just find something else". Sassen says this demonstrates now people have their own ways of adapting to changing conditions.

They also blame outsiders for damage to the forest by cutting down trees illegally in the reserve and on their land, or by poaching game or using poison to catch fish. Marieke said many respondents spoke of this "outsider" issue, arguing that while they should not have to change their own traditional activities, certain activities by outsiders should be prohibited.

Driving the increasing level of unsustainable practices has been the dramatic rise in recent years of the price of goods associated with the cash economy. Basic essentials such as soap, petroleum, matches and children's schooling place an increasing burden on the villagers to find cash.

One of the major challenges is to develop sustainable practices within the forestry reserve. Paramount to this is ensuring constructive dialogue at all levels between stakeholders. CIFOR is assisting this by aligning the current and future needs of forest managers and villagers, as well as assisting policy makers to work closely with stakeholders.

"We give as much information as possible to the community and provide explanations about how involvement in the research will benefit them in the long term. It is important to overcome any levels of mistrust. Sure, it's too early to give a definite thumbs up to the MLA project. But I think I can safely say CIFOR's work is improving relations between NGO's, forest managers and local villagers. I hope that by building on this and past CIFOR activities, we can influence future decisions about the management of the reserve." MH

CIFOR's MLA research in Cameroon is supported by the European Commission, Association Terre de Development, the University of Yaounde, and ONADEF - the Cameroon Government's forestry service.

CIFOR: Impact in the Amazon

CIFOR's work in Amazonia is benefiting both forests and those who live in or near them.

Non-Timber Forest Products

Of the most widely used medicinals in Amazonia, five are logged and three are exported for timber. CIFOR and its local partners are assessing the changing abundance of plants that serve as food and medicinal plants for locally common diseases. Policy makers will be able to use the research findings to develop policies that reduce the negative effect of forest degradation on local health care and nutrition.

Forests and Gender

According to Marina Silva, Brazil's Minister for the Environment, the ability of women to reinforce community actions and help guarantee the social and

material survival of the family can be leveraged to yield a new people and forest paradigm. CIFOR's research in Amazonia is helping develop this new paradigm by documenting the crucial role women play in the knowledge and use of non-timber forest products.

Capacity Building

CIFOR and its local partners are making a major contribution to sustaining highly bio-diverse forest ecosystems in Brazil. By facilitating the access of local communities and decision makers to research findings and best practice forest management techniques, CIFOR is strengthening the capacity of local stakeholders to make better informed decisions about their forests.

CIFOR supports Indonesian and Switzerland workshop on decentralization

Since the early 1990s an increasing number of governments at the local, regional or provincial levels have been taking on the role of managing national forests - an area that was once felt better left in the hands of central governments. In at least 60 developing countries, forest management responsibilities now rest in one degree or another with mayors, town councils and local authorities.

So far, the results have been mixed, sometimes benefiting forests and sometimes not. Finding out what helps and what hinders successful decentralization of forest management were among the key aims at the April 27-30 Interlaken Workshop on Decentralization and Forest Management.

In some cases, greater local control has protected forests against excessive logging, increased public participation in decision-making processes and brought marginal groups into the political loop. In other cases, local élites have exploited decentralisation to their own advantage, leading to increased forest destruction and increasing the poverty of millions of the world's rural poor.

But whatever the outcome, the fact is greater local control of forest management is now more the rule than the exception. According to David Kaimowitz, Director General of the Center for International Forestry Research, -one of the organizers of the workshop, along with the Governments of Switzerland and Indonesia - the international forestry and environmental community must move on from arguing the pros and cons of greater local control of forests.

"The fact is, local councils and state governments around the world will play a greater role in managing national forests. The international community must now focus on helping developing countries find the right balance between central and local forest management - a balance that benefits both forests and the millions of people who rely on them. This will require international support for a whole range of development activities," Mr. Kaimowitz said.

According to the World Bank, 240 million people in the developing world depend partly or fully on forests for their livelihoods. For many of them, forests provide a range of subsistence and commercial livelihood opportunities, including the harvest, sale and personal use of fuelwood, medicinal plants, bushmeats and furniture, handicrafts, and timber for local housing. "The challenge is to ensure neither the forests nor the rural poor are the losers when local governments start making decisions about how to use natural resources," Mr. Kaimowitz said.

The general consensus is that the best way to do this is to strengthen mechanisms that make local and regional governments more accountable to their electorates. When there is no accountability or transparency in making forest decisions, the more politically or financially privileged members of society often dominate the economic opportunities that result from decentralization. Such opportunism often harms local livelihoods and can also prove disastrous for the environment, as often it is the local community that

best knows how to sustainably manage the surrounding forest.

Most people do not realize that in many large forested countries, provincial and state governments have been responsible for most forestry matters for a long time. These include Switzerland, Australia, Canada, and India. Countries that have just started to turn more power over forests to the state and provincial governments - like Brazil, Indonesia, Mali - can learn a lot from them.

According to Mr. Philippe Roch, Director of the Swiss Agency for the Environment, Forests and Landscape, although Indonesia's decentralization is still in its early years, it has similarities with Switzerland's own experience of decentralized forest control. He says the key to successful decentralization of forest management is in finding the right balance between centralized and regional control.

"Switzerland has a long history in sharing forest and environmental responsibilities between the central and provincial governments. Under current regulations, the cantons, political parties and other relevant stakeholders must be consulted when important decrees and other projects with far reaching effects are prepared. Stakeholders participate not only in the development of forest policies and programmes but also in any major undertaking that involves forests. This is crucial to making appropriate forestry policies. In Switzerland formal consultations are carried out several times a year between the Cantonal Forest Directors and the Cantonal Senior Foresters." Mr. Roch said.

Mr. Roch said his Government was proud to co-host the Interlaken Workshop with the Government of Indonesia and CIFOR. "The Swiss people are concerned about the global environment. Our support for the Workshop is an expression of that concern. Also, I'm sure the workshop will help Switzerland learn about some of the forestry challenges we face."

The Secretary General to the Republic of Indonesia's Ministry of Forestry, Mr. Wahyudi Wardoyo MSc, said Indonesia was still in the early stages of decentralizing natural resource management.

"Decentralization is just beginning in Indonesia and we have a lot to learn. But the Indonesian government accepts it is here to stay. That is why we've sponsored the Interlaken workshop - to show our commitment to decentralized forest management and to learn from other countries. Decentralizing forest management in Indonesia has room to improve, as there have been mistakes leading to deforestation. Ultimately, if managed properly, decentralization will benefit both forests and the people of Indonesia. But it must be done in a step-wise approach and through close liaison at all

government levels," Mr. Wardojo said.

One of the key issues for Indonesia, according to the Secretary General, is ensuring revenues going to local governments from forestry activities are also used to improve forest management.

A major focus of the Interlaken Workshop included the problems that occur in the transitional phases of decentralization. One of the key aims was to identify why greater local control of forests has worked in some countries but not in others. This required looking at a range of issues, including:

- the environmental role forests play in such areas as watershed functions, biodiversity conservation and

climate change, which extend beyond local, regional and national boundaries

- the factors driving conflicts related to forest resources that occur between local, indigenous and other people
- the need to consider the interests of stakeholders at various levels, including local, state and provincial governments
- the policies at the national level dealing with forest rehabilitation, logging practices and illegal logging.

When available, outcomes from the workshop will be published in a future edition of CIFOR News. GC

Background to the Interlaken Workshop

In March 2002 at the 2nd United Nations Forum on Forests the Governments of Switzerland, Indonesia and the Center for International Forestry Research (CIFOR) announced they would organize a country led initiative to support the UNFF in facilitating international dialogue and the exchange of information in decision-making related to decentralization. The purpose of the country-led discussions is not to determine if the growing role of local and regional governments is effective or ineffective but, rather, to find ways to improve the quality of "on the ground" forest-related activities.

Objectives of the workshop:

- Analyzing the implications of decentralization in key aspects of forest management for the development of National Forest Programmes (NFPs) and to identify strategies for nfps to effectively address this issue
- Sharing experiences of countries that have decentralized their forestry systems with countries currently rapid processes of decentralization, including transitional aspects of decentralization
- Deriving lessons learnt from countries that have implemented decentralization that are relevant to other countries in the process of decentralization
- Preparing proposals for consideration related to decentralization, federal/centralized systems of forestry and their implications on NFPs for UNFF 4 (3-14 May 2004 in Geneva)

- In handing greater responsibility to local governments, it is important they are not given the more burdensome tasks and the least valuable resources to a manage. This serves as a disincentive to local authorities to manage their forests sustainably.
- Political stability at the regional or local level, supported by proactive civil society groups, can better ensure forests are managed sustainably. Similarly, stability at the central level also enhances the decentralization process.
- Appropriate sharing of decision-making authority and responsibilities for forest management between different levels of government is crucial. This includes effective financing arrangements and revenue sharing mechanisms.

Key elements in decentralizing forest management:

- Effective, open and two-way liaison and coordination between the central and regional governments is essential. Each party must have a clear understanding of each other's roles, responsibilities and legal authority in the sharing of forest management.
- Government processes at all levels regarding forest management must be transparent and accountable, and include adequate public participation in the decision making process.
- Municipal governments must have sufficient human and financial resources to be able to manage, monitor and protect forests effectively.
- Local governments often need a greater understanding of the long term value of forests. This requires a slow process of civic education and cultural change.



Some of the participants at the "Workshop on Decentralization, Federal Systems in Forestry and National Forest Programmes" held in Interlaken, Switzerland from 27-30 April 2004 took a break from their deliberations to visit privately owned forests in the Emmental region. (Photo by Michael Hailu)

CIFOR signs MOU with LIPI

A Memorandum of Understanding (MOU) signed by CIFOR and the Indonesian Government's Institute of Sciences (LIPI) will enhance Indonesia's research into the country's forests and those who depend on forests for their livelihoods.

Director General of CIFOR, David Kaimowitz, said the MOU was an expression of the common vision shared by CIFOR and LIPI.

"CIFOR and LIPI are two very complementary organizations. Through close collaboration, their research can make a significant contribution to the future of Indonesia's forests," Kaimowitz said.

"This MOU will consolidate this collaboration and optimize the research efforts of both LIPI and CIFOR. CIFOR is proud to work with LIPI, an institute that is highly regarded for the quality and broad range of its scientific research. LIPI's diversity of knowledge and research, and its high level of scientific expertise, will be of considerable benefit to CIFOR's forest research," Kaimowitz said.

Prof. Dr. Umar A. Jenie, the Chair of LIPI, said the MOU would not only benefit both organizations but, more importantly, also benefit the forests and people of Indonesia.

"LIPI and Indonesia can gain a lot from CIFOR's expertise in researching forest issues. In particular, LIPI will benefit from CIFOR's international expertise. For example, CIFOR's research in places like Cameroon and Brazil is often applicable to what is happening in Indonesia's forests. I am confident this knowledge will make a significant contribution to LIPI's own research into forest and environmental issues. For example, as a global research organization, CIFOR will be able to help make the rest of the world more aware of the important work LIPI is doing," Prof. Dr. Umar said.

Book review



CHINA'S FORESTS: GLOBAL LESSONS FROM MARKET REFORMS

"The insights into how policies have affected forests in different regions in China are excellent."
Robert Mendelsohn, Yale University.

China's Forests: Global Lessons from Market Reforms. Edited by William F. Hyde, Brian Belcher, and

Jintao Xu, 2003. Resources for the Future, Washington, DC, USA, and Centre for International Forestry Research, Bogor, Indonesia. ISBN 1-891853-66-X.

Since the early 1980s, China's farmers have demonstrated their own appreciation of the importance of both the market and non-market values of forests, undertaking an unprecedented expansion of tree planting on the lands under their own management. Forest cover on the collective forest and farm lands increased by millions of hectares, as much as 60% in 15 years, a global record in small-scale tree planting.

Despite this period of tremendous forest recovery, China's forests today remain a major environmental management challenge from both national and global perspectives, the latter due to China's sheer size and hence role in the state of the global environment. To better understand the issues of global forest management, China's experience was included as one of the six country cases reviewed by the World Bank as part of the evaluation of its own forest strategy. China's forests were also the focus of a major assessment by the Forests and Grasslands Task Force of the China Council for International Cooperation on Environment and Development published in 2002.

China's Forests: Global Lessons from Market Reforms and the work of its editors and contributors is a

comprehensive examination of the contemporary issues facing China's forestry. The book's contributors are distinguished forestry experts with a wealth of experience both in China and the rest of the world. Through comprehensive analysis, collectively they provide important perspectives on the impacts of China's policies on its forests. They stress China's forestry successes since the beginning of reforms in 1978 and draw lessons from the experience both for China and for global forestry. They identify the challenges that remain and their implications for future policy.

I have no doubt that this volume will be a landmark in the development of thinking about forest policy, both in China and globally.

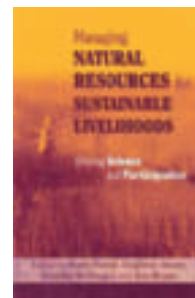
Adapted from the foreword to China's Forests: Global Lessons from Market Reforms, written by Uma Lele, Leader, the World Bank's Forest Strategy Evaluation; Co-Chair, China Taskforce on Forests and Grasslands; and Senior Advisor, Operations Evaluation Department, the World Bank.

Further information email n.sabarniati@cgiar.org

MANAGING NATURAL RESOURCES FOR SUSTAINABLE LIVELIHOODS

Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation. Edited by Barry Pound, Sieglinde Snapp, Cynthia McDougall, and Ann Braun, 2004. Earthscan/James and James. Paperback 1-84407-026-3 Hardback 1-84407-025-5.

Management of local resources has a greater chance of a sustainable outcome when there are partnerships between local people and external agencies, and agendas relevant to their aspirations and circumstances.



Managing Natural Resources for Sustainable Livelihoods analyses and extends this premise to show unequivocally that the process of research for improving natural resource management must incorporate participatory and user-focused approaches, leading to development based on the needs and knowledge of local resource users.

Drawing on extensive and highly relevant case studies, this book presents innovative approaches for establishing and sustaining participation and collective decision-making, good practice for research, and challenges for future developments.

It covers a wide range of natural resources - including forests and soils, and water and management units, such as watersheds and common property areas - and provides practical lessons from analysis and meta-analysis of cases from Asia, Africa and Latin America.

This book offers insights on how to make research participatory while maintaining rigour and high-quality biological science, different forms of participation, and ways to scale up and extend participatory approaches and successful initiatives.

Managing Natural Resources for Sustainable Livelihoods, published by Earthscan, is an invaluable reference for professionals involved in natural resource management for sustainable development. It is also an essential resource for teachers and students of both the biophysical and social science aspects of natural resource management.

Further information email: orders@lbsltd.co.uk or Styluspub@aol.com (attention John Von Knorring).



POLICIES AND GOVERNANCE STRUCTURES IN WOODLANDS OF SOUTHERN AFRICA

Policies and Governance Structures in Woodlands of Southern Africa. Edited by Godwin Kowero, Bruce M. Campbell and Ussif Rashid Sumaila, 2003. Center for International Forestry Research, Bogor, Indonesia. ISBN 979-3361-22-0

This book is very timely due to the increasing desire to devolve ownership and management of natural forests to local communities as well as to use those resources to alleviate poverty. It provides information and tools to guide the planning and management of the vast woodlands in Southern Africa. The book also provides a good account of how the forestry sector has evolved in the socio-economic environment, thus offering useful scenarios for planning as alternative forest management options. Adapted from the foreword written by Enos Shumba, Manager, Forestry Commission, Zimbabwe; Arlito Cuco, Director of Forestry and Wildlife, Mozambique; Said Iddi, Director, Forestry and Beekeeping Division, Tanzania; and Kenneth Nyasulu, Director, Forest Department, Malawi.

Southern Africa is essentially a woodland region. The woodlands are home to some of the largest herds of

wildlife in the world, support a vast livestock industry, play a pivotal role in the hydrological functioning of the region, support the livelihoods of millions of people through agriculture, forest products and other services. However, there is very little scientific information to guide their development and management. Given the numerous end uses and many stakeholders, it is not possible to rely exclusively on conventional forestry approaches and tools to manage the woodlands.

This book highlights different facets of local community governance of woodlands. The outcomes for people and forest are often dependent on local institutional arrangements, such as rules, regulations, and organisational dynamics. The book explores the role of local institutional arrangements in woodland management, in community-based approaches and in conflict resolution.

It documents approaches and tools to reconcile the demands of the three key stakeholders on the woodlands – local communities, government and the private sector – in the framework of three prominent rural development goals of food security, increased rural incomes and biodiversity or forest conservation. It also highlights tradeoffs between the goals and potential woodland management options.

Forest certification symposium

The Yale Program on Forest Certification, in cooperation with the State University of New York at Buffalo, the University of Tasmania, and the Rainforest Alliance, is hosting a symposium and workshop on forest certification, June 10-11, 2004. To be held at the Yale School of Forestry and Environmental Studies, in New Haven, Connecticut, USA, this major event will explore the social, ecological and economic effects of forest certification in developing and transitioning societies. The symposium will disseminate and provide feedback on 16 draft case studies developed by in-country scholars exploring forest certification in the Asia-Pacific, Eastern Europe, Latin America and Africa. Practitioners, the business community, donors, NGOs, and the academic community are all called on to use their expertise in review panels for the case studies, enriching the work done by the authors and identifying knowledge gaps. This will help the authors build on their research to conduct even more informative analysis. Because the systematic study of forest certification and its effects is fairly new, this is a significant opportunity to build upon the international expertise of this group and promote future use of this methodology in assessing forest policy. Following the Symposium, the authors and project team will hold a closed workshop, June 12-13, where authors will revise their case studies according to symposium input. Further information:

www.yale.edu/forestcertification/symposium

New regional coordinator for CIFOR's South America regional office



CIFOR has appointed **Alvaro Luna Terrazas** as the Coordinator for CIFOR's Regional Office in Belem, Brazil, commencing 3 May 2004. Alvaro's appointment marks a new approach to the South America Regional Coordinator position. Whereas previously the coordinator undertook both management and research, Alvaro's primary focus will be coordinating CIFOR's strategic priorities and opportunities in South America. This follows Cesar Sabogal's decision to step down from the position and concentrate on his much preferred area of endeavour, science and forest research.

Alvaro joins CIFOR from IUCN, where he was the Regional Forest Conservation Programme Coordinator in Quito, Ecuador and the Regional Scientific Adviser for South America. His considerable forestry experience also includes positions with Conservation International, UNDP, the German Development Service, GTZ and the Bolivian Forests Service. Alvaro's international background includes assignments in Brazil, Bolivia, Lesotho and Ecuador and he brings to CIFOR considerable experience in research coordination and mobilizing funds with a variety of donors.

Alvaro holds a Masters degree from the Department of Forestry Sciences in Tropical and Sub-tropical Areas - Universitat Gottingen.

CIFOR is pleased to welcome Alvaro and his wife, Mariette to CIFOR.

CIFOR also takes this opportunity to express its sincere thanks to Cesar Sabogal's hard work and dedication in Belem over many years. Cesar's commitment to CIFOR's important forest research in Brazil has been exemplary and lays a firm foundation for Alvaro's impending arrival.

CIFOR staff



Kusuma Hendriani joined CIFOR in August 2003 as an Accountant assigned primarily to the Forests and Governance Programme. Prior to CIFOR, Kusuma worked for PT. NACAP Indonesia, a Netherlands Oil and Gas Pipeline Contractor. She has an Accounting

degree from Parahyangan University, Bandung, Indonesia.

Daniel Tiveau joined in August 2003 as a Research Fellow and Project Coordinator with the Forests and Livelihoods programme. He is working on the dry forests project and liaises closely with partners in Burkina Faso, Zambia and Tanzania. Daniel's PhD in Silviculture is based on his research into growth of tropical dry forests in Burkina Faso.



years and previously worked with BHP Minerals Discovery. Sisi is about to complete a degree in Management.

Feby Litamahuputty joined CIFOR in December 2003 as a Secretary with the Forests & Livelihoods Programme. Feby came from consulting firm McKinsey & Company Jakarta, where she handled personnel matters for McKinsey consultants across SE Asia. Feby has a degree in French Literature from Pajajaran University in Bandung, Indonesia



Henri-Noël Z. Bouda joined CIFOR in November 2003 as a Research Assistant for the Burkina Faso-based Dry Forest project. Prior to CIFOR he was an Environmental Department Leader with the Programme Eau et Environnement région du Nord (PEEN). Henri-Noël studied forestry at the Universities of Tlemcen and Tiaret in Algeria and also has a background in sociology.



Crispen Marunda joined CIFOR in December 2003 as a Research Fellow with the Forests and Livelihoods Programme. Based in Zimbabwe, he is working on the dry forests project and works with partners in Zimbabwe, Zambia and Tanzania. Crispen worked for 12 years in Zimbabwe's forestry sector and has a Ph.D. from the Department of Environment, University of York, UK.



Hani Mardhiyah is the new Administrative Support Assistant with Corporate Services in Bogor. Hani is a familiar face around CIFOR, having assisted various areas within CIFOR since 2001. She has a Diploma in Secretarial & Office Administration from Lembaga

Pendidikan Triguna, Bogor, Indonesia.

Sisi Ratnasari joined in October 2003 as a Human Resources Assistant responsible for the staff database and personnel administrative support. Sisi has assisted with several CIFOR projects in recent





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Pauline Nechironga joined in December 2003 as a Secretary in the Regional Office in Zimbabwe. Her previous experience includes secretarial and administrative duties with SIRDC and Cyanamid Zimbabwe. Pauline is completing a degree in Commerce from Zimbabwe Open University.

Paolo Omar Cerutti joined CIFOR in January 2004 and is a Research Fellow based in Cameroon where he is researching forest law enforcement and governance. Prior to CIFOR, Paolo was the Forest Expert and Assistant Coordinator with the World Bank in Albania. Paolo has a Masters degree in Remote Sensing & Natural Resources Evaluation from the Agronomic Institute for Overseas Countries, Florence, Italy.



Michael Pereira de Lira joined in January as an Administrator at the CIFOR Brazil office. Michael's background includes experience in Financial and Human Resources management, and Information Technology. He has a degree in Economics from UNAMA, Belém, Para-Brazil.

Dr. Yoo Byoung Il joined CIFOR in February 2004 as a Visiting Scientist from the Korea Forest Research Institute (KFRI), Seoul, South Korea. Before coming to CIFOR, Dr. Yoo worked with KFRI as the Director of Forest Management. He's working closely with the Forests and Governance Programme on Illegal activities and forest law enforcement, and enhancing capacity for decentralized governance.

**Moving on:**

Several colleagues left CIFOR recently. We take this opportunity to thank them for their contribution to the Center and to wish them every success.

Pamela Dube - following six months as a Secretary, Pamela has resigned from CIFOR's Zimbabwe office.

Ramon Gerrits - after joining CIFOR Brazil in 1999, Ramon has stepped down from his position as the Center's Regional Office Manager.

Contributors

Ronny Syam, Yulia Siagian, Heru Komarudin, Megan James, Paul Stapleton, Greg Clough, Mathew Heggarty, Laura Snook, Douglas Sheil.

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