Society of American Foresters

International Forestry Working Group Newsletter

Working Group B3

September 2016

Contributed Articles

AFoCo hosts regional training on forest fire management

Bangkok, Thailand — 42 delegates from ten ASEAN member states attended a training course on "Forest Fire Sciences & Management in the 21st Century for Training of Trainers" on May 25-27, 2016. The training course was organized by the ASEAN-ROK Forest Cooperation (AFoCo) Secretariat, based in Seoul, the Republic of Korea.

AFoCo is a regional cooperation mechanism in the forest sector between ASEAN member states and the Republic of Korea, which aims to address the issues of deforestation and forest degradation in Asia. The AFoCo Landmark Program, a representative AFoCo project launched in 2014, is the main program through which all training courses are implemented.

The training course is primarily targeted at the training of trainers for forest fire management staff in ASEAN countries by equipping them with a better understanding of forest fire sciences, which includes topics on fire modelling and community-based fire management. Another key objective of the training course is to provide participants with an opportunity to learn about the best practices of forest fire management in countries around the world, and develop conceptual ideas based on advanced forest sciences for the formulation of guidelines on forest fire management.

Combining classroom learning and field-based learning

Forest fire science is an essential component of most cohesive strategy plans, and an adequate understanding of the topic is vital to ensure the effective implementation of forest fire management plans. The knowledge and experiences gained from this training course can be subsequently shared with other managers and local communities, thus contributing to the improvement of forest fire management in ASEAN countries.

Throughout the intensive 3-day training course, participants attended lectures and discussion sessions facilitated by international experts, and also embarked on a field visit to the Sungnoen National Reserves Forest. Lecturers from the United States, the Republic of Korea and Thailand introduced new perspectives on forest fire management through engaging and insightful lectures on the ecology, forecasting, management and suppression of forest fires.

The future of fire management

At the beginning of the training course, several participants expressed keen interest in the key topics of the training course – 'Let it Burn' policy, community-based fire management, and GIS applications.

Professor John D. Bailey from the College of Forestry, Oregon State University, introduced a new paradigm where policies of prescribed burning and wildfire use, where smaller, natural fires are allowed to burn and managed proactively (provided they do not significantly risk lives or property), can bring positive outcomes as well. Professor Bailey concluded that adaptive management, using the abundance of information and tools currently available, can support collaborative implementation of forest fire management plans.

A community-based fire crew from the Forest Fire Control's Promotion Unit demonstrates fire line construction.

A community-based fire crew from the Forest Fire Control's Promotion Unit demonstrates fire suppression techniques.

Forest fire management in Thailand has always encompassed an integrative approach, merging ecology and management. Assistant Professor Kobsak Wanthongchai from the Faculty of Forestry at Kasetsart University shared about the importance of Integrative Forest Fire Management (IFFM) strategies, while emphasizing that it is crucial to understand the ecological role of fires when making local decisions.

Sharing information and plans among countries

During the training, each participant from the 10 ASEAN countries delivered a brief presentation on the current issues on forest fire management in their respective countries. This session increased the participants' awareness of the situation in their neighboring countries, while the subsequent discussion session further enhanced their understanding of alternative forest fire management methods. Our hope is that the participants will integrate new knowledge and technologies in their respective countries to manage forest fires while minimizing long-term ecological impacts.

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The Panamanian Sombrero:
Its Use and Importance in Central Panama

Samuel J. Clair (sjclair@mtu.edu)

A study took place in the Panamanian provinces of Panama Oeste and Coclé. Semi-formal interviews of sombrero weavers took place in the districts of Capira in Panama Oeste and in the district of La Pintada in Coclé. Interviews were based on an IRB-approved set of questions. Both districts are culturally Latino, and the sombrero is a large part of men's identity. Materials for creating the sombrero have come from the wild traditionally, but some low-level management is now taking place. Government programs have promoted better management of sombrero-specific plants, and a sombrero festival in La Pintada has promoted economic advancement of high-end weavers. The processing of fiber and the weaving of sombreros is not mechanized at any point, so each step must be done by hand

Observations

Stylistic differences exist between both districts, as do materials. Weavers in the La Pintada district utilize *Carludovica palmata (*bellota), *Astrocaryum standleyanum (*chonta), *Arrabidaea chica (*chisná), Junco (a sedge in the Cyperaceae family), *Furcraea cabuya (*cabuya) and sometimes *Aechmea magdalenae* (pita) to make the traditional 'Sombrero Pintado' (painted sombrero). *C. palmata* is woven into multiple long braids before it is sewn together to form the white portion of the sombrero (Fig.1) A wooden mold (*molde* or *horma*) is used as a base for sewing the braids together to form the sombrero. Each weaver possesses molds of various circumferences, to match the shape of different heads. *F. cabuja* or *A magdalenae* is harvested and processed into a string for sewing each braid onto the sombrero. *A. standleyanum* is harvested, processed, and dyed black with *A. chica* to be used in the black portions of the sombreo. Junco is harvested, processed, and dyed with *A. chica* to be used for the tarco in traditional sombreros (Fig. 2), but *A. standleyanum* is used when Junco is not available.

Fig. 1. Braid of *C. palmata* befoe it is sewn onto sombrero

Unlike the weavers in La Pintada, weavers in the Capira district are prone to weave only with *C. palmata*. These sombreros are known as 'Sombrero Capire**ño.'** The weaving technique is also different, since instead of using braids which are sewn together, the entire sombrero is woven together in one piece (Fig.3). These sombreros may be all white, or black

Fig. 2. Sombrero Pintado. Arrow points to tarco.

string may be used to add adornments. A variation of the Sombrero Pintado is made in this weave, with black yarn used for the black portion. This style, however, should not be confused with the true Sombrero Pintado which uses *A. standleyanum* for the black portion.

Fig. 3.
Sombrero Capire**ño**

Market conditions differ between both districts. The low-end sombrero market in La Pintada is dominated by women who sell either directly or to an intermediary. By selling direct a woman can get a better price for her work, but the intermediary is always willing to purchase. The most basic sombrero sells for six to seven dollars to an intermediary. Prices go up according to quality and the number of braids (*vueltas)* that are sewn into the cup *(copa)* of the sombrero. The finest sombreros have twenty or more *vueltas* and are worth $800 or more when sold direct. Men who weave high-end sombreros were interviewed in the communities of Membrillar and Pedregoso. These menwork together with their wives to expedite the process, which may take anywhere from one to twomonths depending on how many hours are spent weaving each day. High-end sombrero prices have doubled since around 2011, due in large part to the Sombrero Pintado Festival in La Pintada each October. This festival holds sombrero-judging contests and gives monetary prizes to the best weavers in each category. This event draws Panamanians from around the country and it gives recognition to the best weavers from La Pintada. By winning an event a weaver can expect to find more customers and is able to expect a better price for his or hersombreros.

Both men and women weave in Capira, but men are more apt to weave professionally. Women tend to weave for family members or only occasionally. The weavers of Capira make a sombrero that can be ready in eight days. Since the wage for labor is ten dollars per day, weavers ask to be paid a minimum of 80 dollars for a sombrero. If the sombrero is being sold to a middleman to be sold for a higher price, the weaver can charge slightly more. Finer sombreros increase in the amount of work and thus increase in price up to around $180. Some weavers only produce sombreros when they have a customer, but others weave regardless. The average weaver can

produce two sombreros per month easily, and some produce as many as four if they work together with their wife.

Scarcity of raw material is not a serious issue yet, even though prolonged dry seasons have affected availability. The Panamanian government began promoting management of *C. palmata* in La Pintada starting in 2006. Although many weavers have their own plots of material in La Pintada, it is often necessary to buy material from other areas for a brief time during the dry season. *C.palmata* is sold by the whole leaf (*cogollo*) in La Pintada, and is sold for around a dollar for six processed leaves. A minimum of around twelve leaves is needed to make a single sombrero. *A. standleyanum,* the second most important fiber in a Sombrero Pintado, is not harvested around La Pintada. While this material was once more abundant, it now comes from more remote areas.

There are fewer weavers total in Capira, but those who do weave receive substantially more for their sombreros on average than do the weavers of La Pintada. For this reason, the price per leaf for processed*C. Palmata* in Capira may be as high as 50-cents. Fiber processors here say that production goes down for a brief time during the dry season when the plant is flowering, but they generally plan ahead and harvest enough material to get through this period. Management is rudimentary in Capira, and no one was seen planting actively. Those who have material, however, generally weed around the area with a machete and may transplant young plants to more favorable areas.

C. palmata is impervious to over-harvest, so it does not appear to be in danger at the moment. Longer dry seasons in the future, however, could continue to diminish production each year. While Capira has *A. standleyanum* available, it is rarely used for this region's sombreros. On the other hand, La Pintada relies on this material for its style of sombreros, but the material is not very abundant locally. This is compensated by fiber processors who bring the material from farther away in the interior. While both styles of sombrero are unique to Panama, Panama does not have intellectual rights to its design, like what is seen with the Montecristi hat from Ecuador. The government, however, is working to put intellectual rights into effect for the Sombrero Pintado. While popular throughout Panama Oeste and in other provinces, The Sombrero Capireño is less famous than the Sombrero Pintado and has yet to receive much government attention.

International Tree Foundation
Starts a 20 Million Tree Program in Kenya

The International Tree Foundation working with the Mount Kenya Environmental Conservation and the Kenyan Forest Service is well underway with its ambitious program to plant 20 million trees in highland watersheds. The initial work is scheduled for Mount Kenya Forest in Embu District and will be expanded to include the Aberdares, Mount Elgon, the Cherangani Hills, and the Mau Complex – as well as Kakamega Forest, Kenya's only rain forest.

"My 20 Trees and Me", a parallel program designed for school children, works with children to raise and care for trees during their time in school.

Participating Kenyan Student (photo source: http://internationaltreefoundation.org/20milliontrees/)

For more information: http://internationaltreefoundation.org/20milliontrees/

Information about the convention, including registration can be found at:
http://www.xcdsystem.com/safconference/website/

Yale School of Forestry and Environmental Sciences
New Haven, Connecticut
For more information contact Pooja Choksi, pooja.choksi@yale.edu

Small Grant Applications for Tree Planting in Africa
Short deadline (October 17, 2016)

http://internationaltreefoundation.org/community-tree-planting-grants-for-uk-and-africa/

Note from the editor

Feel free to send this newsletter on to others.

If you would like to be added to the distribution list for the newsletter, send an email to Blair Orr (blairorr@ymail.com)

- Blair Orr, IFWG Newsletter Editor
(blairorr@ymail.com)

SAF World Forestry Committee News

Gregory Award

SAF's World Forestry Committee is excited to announce the results of the 2016 Gregory Award. The Committee received a record-breaking 72 applicants from over 30 different countries. Thanks to the continued generosity of the Gregory family and SAF members, the award will once again bring two promising young professionals to the SAF Convention in Madison, Wisconsin. This year's recipients are Paula E. Sarigumba from Southville Binan Laguna, Philippines and Anukram Adhikary from Kathmandu, Nepal. We are excited to have them join us and share their unique knowledge and experiences. Be on the lookout for opportunities to meet and greet these incredible individuals, including the SAF Diversity Reception at Convention. As always, please send any questions or ideas to the Committee's staff liaison, Danielle Watson at watsond@safnet.org.

Join an SAF Working Group

As a member of the Society of American Foresters you can join SAF working groups by going to the website:

Join a working group here.

If you want to join this working group, we are B3, the International Forestry Working Group. Please pass this information along to SAF members who might be interested in joining a working group – especially B3, the International Forestry Working Group.

TROPICAL NOTES

Frank H. Wadsworth and Library Staff
International Institute of Tropical Forestry
USDA Forest Service
San Juan, Puerto Rico

Logging damage slight

Assessment of the impacts of logging on dense tropical forests in Africa and South America distinguishes base camps, logging roads, and actual felling where harvested volumes vary from 3 to 15 m3/ha. These estimations confirm that the destruction of forest cover is so low that, except in radical situations, logging is directly responsible for only 5.5 to 8.5% of forest destruction, no threat to the sustainability of tropical forests. In rich forest environments where damage may rise to 16%, natural reconstitution of biomass between logging sequences reconstitutes forest cover within 20 years, with the ecological and biological values virtually intact.

J. Esteve. Destruction of forest areas as a result of logging and harvesting in African or American dense tropical rainforests. [Bois et forets des Tropiques 328(2):5-12 2016]

Growth from complementary neighbors

An idea exists that a tree may grow faster when surrounded by more dissimilar competing neighbors, not simply their differences in size. A doubling of neighborhood multi-trait dissimilarity and phylogenetic dissimilarity in a 50 ha forest, (274 tree species, and 518,433 trees), stimulated tree growth 39.8% and 34.3% respectively. Effects were strongest with light-demanding species. [If indeed such results relate to dissimilarity that is basically genetic, we seem to have discovered an argument for diverse forests for forest productivity as well as for ecology, FHW]

Yuxin Chen S. and others. Positive effects of neighborhood complementarity on tree growth in a neotropical forest. [Ecology 97 (3):776-785 2016]

Drying wood by pre-girdling

Nine-year-old planted *Acacia mangium* trees were girdled 8 months before cutting. It reduced 50% of the green moisture content of the wood, there was no end-splitting of logs during felling, and the general wood quality of girdled trees improved, decreased percentage of honeycombing and degree of deformation during drying.

Effects of girdling on wood properties and drying characteristics of Acacia mangium. [Journal of Tropical Forest Science 27(4):498-505 2015]

Rubber plantation trees

The concept of an ecological-economic rubber plantation calls for intercropping rubber plants with other significantly valuable plants to increase profitability. *Coffea arabica*, and *Myristica yunnanensis* have optimum irradiance intensities of 40% and can be planted between rubber plants. *Swietenia mahagoni*, *Mesua ferrea*, and *Paramichelia baillonii* require more light found only in the margins of rubber plantings.

Yaohua Tian. Shade tolerance and suitability of tree species for planting in rubber plantations. [Journal of Forest Science 78(1):11 2016]

Fuelwood impacts in Uganda

Surveyed were 192 households dependent on Mt. Elgon National Park for their fuel. Dead fuelwood collection penetrated 1,000m into the Park. Consumption ranged from 1 to 2 m3 per capita per year. There was additional illegal commercial fuelwood harvesting and charcoal making. Highly-preferred tree species were mostly deleted. Research is looked to for more sustainable options, including alternative fuels.

M Sassen and others. Fuelwood collection and its impacts on a protected tropical mountain forest in Uganda. [Forest Ecology and Management 354:56-67 2015]

Charcoal threat in Burundi

Wood provides 96% of the energy use in Burundi, mostly for cooking. Three-quarters of this are consumed by city-dwellers. Current consumption could wipe out Burundi's entire forest in 25 to 33 years. For the system to be sustainable. Practices such as roadside tree planting, assisted forest regeneration, research on the best tree varieties, energy efficiency improvements (stoves) and renewable sources of energy.

F. Bangirinama and others. Charcoal as the main source of fuel for city-dwellers, a serious problem for the conservation of Burundi's forest cover[[Bois et Forets Tropiques 328 (2):45-54 2016]

Lianas suppress forest

In a Panamanian tropical forest lianas suppress survival and growth of tree seedlings. In an experiment with 16 80x80m plots in which 14 species of different shade tolerances were planted, half with lianas intact and half removed, after 2 years, the seedlings with lianas removed survived 75% more and grew 300% taller than those left with lianas. There was no significant difference among the 14 species, indicating that lianas had a similar negative effect on them all. Because the range in shade tolerance among the species was similarly all affected, the effect of the lianas may not be limited to light.

L. Martinez-Izquerdo and others. Lianas suppress seedling growth and survival of 14 tree species in a Panamanian tropical forest. [Ecology 97 (1):215-224 2016]

Decline of mangroves

Mangroves of Costa Rica, Panama, Colombia, and Ecuador have provided goods and services for human societies for millennia. Post-conquest deforestation of mangroves prevailed during the next 400 years. Since 1990, despite the inclusion of mangroves in protected areas subject to conservation policies, mangrove cover has continued to decline due to expanding human activities (agriculture, aquaculture, and coastal development) even where laws prohibit their removal. Notwithstanding this, mangrove management will be paramount to protect coasts, coastal livelihoods, and biodiversity of this region.

J. Lopez-Angarita and others. Mangroves and people: Lessons from a history of use and abuse in four Latin American countries. [Forest Ecology and Management 368:151-162 2016]

Variation in Andean reforestation

Results from planting 7 native tree species on 12 sites are reported. Alder (*Alnus acuminata*) grew at a mean annual diameter rate of 1.81 cm. and a mean annual height increment of 0.95 m. Andean oak (*Quercus humboldtii*) grew annually in diameter 0.99 cm and in height 0.56 m. Soil magnesium and potassium were predictors of alder and oak growth and yet soil nitrogen, phosphorus, and sodium were negatively associated. Even native species are site-restricted for best growth.

M. Bare and others. Growth of native tree species planted in montane reforestation projects in the Colombian and Ecuadorean Andes differs among site and species.[New Forests 47(3):333-355 2016]

Provenance of Sissoo

Around 55 seed source provenances of *Dalbergia sissoo* were collected from India and Nepal in 1995. Forty were sown in 1995, and survival and growth were evaluated in 2010. Survival and growth varied significantly between locations but not within sites. Seedlings from the Northwestern Region of India were distinctly superior in survival, height, diameter, and volume.

Mohit Gera and others. Provenance trial of *Dalbergia sissoo* Roxb. [Indian Forester 142(3):213-220 2016]

Plot and sample size for Papua New Guinea

National forest inventories must make the best use of limited resources. Data were used from 133 permanent 1-hectare sample plots to determine the coefficient of variation and taxonomic richness at different sample sizes up to 0.2-0.3 ha. It was concluded that a network of 319 sample plots between 0.2 and 0.3 ha would represent an efficient sampling scheme in lowland forests for the National Forest Inventory.

G. Grussu and others. Optimum plot and sample sizes for carbon stock and biodiversity estimation in the lowland tropical forests of Papua New Guinea. [Forestry 89(2):150-158 2016]

RIL effects on Amazonia regeneration

RIL effects on 11-year abundance of 7 species of seedlings in 144 plots were measured. Growth of all species was enhanced for up to three years after logging. However, 11 years after logging, seedling mortality of 5 of the species was higher

than in the controls. The effect on seedlings in a long term can influence the regeneration and structure of tropical forest communities.

M. R. Darrigo and others. Effects of reduced impact logging on forest regeneration in the central Amazonia. [Forest Ecology and Management 360:52-59 2016]

Protected network in Puerto Rico

The protected areas in Puerto Rico include the most species-rich regions of the island, are forest covered, and include habitats for 31 threatened vertebrate species. However, biodiversity features need better representation within protected areas. In addition to expanding existing areas there are other mechanisms that could enhance conservation.

J. Castro-Prieto and others. Characterization of the network of protected areas in Puerto Rico. [Caribbean Naturalist 29:1-16 2016]

Forest variation in Dominica

The Dacryodes-Sloanea forest association was assessed in 17 0.25-ha plots in northeast, northwest, and southwest Dominica. Two variants were found, whether a canopy tree, *Amanoa caribaea*, was codominant. The forests in the southwest had higher stem density, lower tree height, and greater species diversity than those in the northwest and northeast. Differences are also due to the degree of hurricane-caused disturbance.

S. J. DeWalt and others. Forest and community structure of tropical sub-montane rain forests on the island of Dominica, Lesser Antilles.[Caribbean Naturalist Special Issue No. 1:116-137 2016]

Conservation Cooperatives

The management of natural resources increasingly calls for collaboration by scientists and planners to solve common problems. Cooperative frameworks for this, Conservation Cooperatives, are new. One, covering the US, Caribbean countries, and bordering Canada and Mexico, now exists. That most recently established is the Caribbean Landscape Conservation Cooperative, intended to provide land managers with the best available scientific data and to assist them in developing shared priorities and conservation action.

W. A. Gould and others. The Caribbean Landscape Conservation Cooperative: a new framework for effective conservation of natural and cultural resources in the Caribbean. [Caribbean Naturalist Special Issue No. 1:73-86 2016]

Climate outlook for Puerto Rico

Twelve statistically downscaled circulation models were applied in predicting the future climate of Puerto Rico. Five averages of daily precipitation and temperature were estimated. Holdridge life zones were used to map the ecological effects. Precipitation is predicted to decline, causing increases in drought intensity and extremes. Life zones may shift from wetter to drier zones with the possibility of losing most, if not all, of the subtropical rain forests and extinction risks to rain forest specialists or obligates.

Henareh Khalyani and others. Climate change implications for tropical islands; interpolating and interpreting statistically downscaled GCM projections for management and planning. [Journal of Applied Meteorology and Climatology: 265-282 2016]

Permanent Caribbean plots

Caribbean Foresters take steps towards a network of permanent forest plots to increase understanding of long-term forest dynamics, and to help reverse increasing detachment from nature in Caribbean undergraduate students.

E. Lugo. Caribbean Foresters take steps towards a network of permanent forest plots in the Caribbean. [Caribbean Naturalist Special Issue No. 1:13-17 2016]

H. Vallés and others. Permanent forestry plots: a potentially valuable teaching resource in undergraduate biology programs for the Caribbean.[Caribbean Naturalist Special Issue No. 1: 52-62 2016]

Sustainable rosewood oil

Essential oil from the Amazonian rosewood tree (*Aniba rosaeodora* Ducke) is an important aromatic ingredient in luxury perfumes. The species is listed as endangered. Thanks to the market for the essential oil, both reforestation and sustained production are considered as viable alternatives. A plantation of 605 trees in a plot slightly larger than a hectare in French Guiana surrounded by primary forest gave evidence of productivity. Nine-year average annual growth of 99 trees was 0.7m in height, 0.8 cm in stem diameter, with essential oils ranging from 0.6 to 3.6%, depending on proximity to the forest. With avoidance of edge

effects of the forest, short-rotation rosewood could be an attractive system for production of the essential oil.

Author and page umber unknown, [Bois et Forets des Tropiques 326 2016]

Response to silviculture

30-year forest response to silvicultural treatment was assessed in the Brazilian Amazon, compared with pre-logging conditions and an unlogged control. The silviculture included logging and thinning and reduced the forest basal area from 19 to 53%. In 41 sample plots of 0.25 ha each trees of ≥5 cm dbh were remeasured on 8 occasions. Tree species was not impaired by silviculture. Intensities removing more than 6.6m2 of basal area per hectare did not show signs of returning to pre-logging species composition. For forest recovery and maintenance of biodiversity strong thinning should be avoided. Harvesting practices are so limited legally that they are unlikely to cause long-term changes in stand composition. (The satisfaction of these results depends on the silvicultural objectives, which may well include deliberate changes in composition FHW)

Luciana de Avila and others. Medium-term dynamics of tree species composition in response to silvicultural intervention intensities in a tropical rain forest. [Biological Conservation 191:577-586 2015]

Oil palm diversification

Expanding oil palm planting is a cause of deforestation and tree species losses. Planting indigenous species of trees within oil palm plantations could be an improvement but species of trees must be tested. To examine the feasibility, 351 seedlings of various species were planted along a river in an oil palm plantation in Malaysia in 2003. Survival has been more than 90%, suggesting the ecological potential of the practice.

Y. T. Watanabe and others. Growth and survival of trees planted in an oil palm plantation: implications for restoration of biodiversity [Journal of Tropical Forest Science 28(1):97-105 2016]

Sawnwood from logging gaps

Many timber harvests have left gaps unregenerated. Treatments include natural regeneration, and enrichment planting of sawtimber species the first and second ye0ars after logging. Projecting 25 to 50% increase in growth, 500% in prices,

and interest rates of 4 to 6%, the costs of planting and tending are predicted to pay a profit by year 60.

G. Schwartz and others. Profitability of silvicultural treatments in logging gaps in the Brazilian Amazon. [Journal of Tropical Forest Science 28(1):68-78 2016]

Peat Swamp trend

The North Selangor Peat Swamp Forest (NSPSF) in Peninsular Malaysia, the world's second largest remaining peatland ecosystem, is rapidly shrinking because of the expansion of oil palm agriculture. More than 87% is designated as reserve but in fact is under constant threats for forest conversions, fires, and road construction. From a camera-survey at 45 sites representing 779 km2 (2,454 nights) there were recorded only 16 mammals. Lack of evidence of even footprints of the Sumatran Rhinoceros or the Malaysian Tiger suggested that they may be extirpated.

S. Sasidhran and others. Habitat frequency pattern and activity rate of native mammals in tropical fragmented peat swamp preserved in Peninsular Malaysia. [Forest Ecology and Management 363:140-148 2016]

Escape from unsustainability in India

Forests reportedly are degrading due to unsustainability of harvests of fuel wood, fodder, and non-timber forest produce in the Renukoot Forestry Division of India. Substitutions and forestry practices such as coppice, pollarding, pruning, root suckers, and trenching are recommended for more sustainable harvests of non-timber produce.

P. Kohli and others. Quantifying the extent of unsustainable harvest of fuelwood, fodder, and non-timber forest produce. Major driver of forest degradation in the dry deciduous forest of Renukoot, Uttar Pradesh. [Indian Forester 142 (4):355-363 2016]

Help to the Congo

The Democratic Republic of the Congo has been assigned $200 million over five years to reduce deforestation and bolster sustainable development, the funds to be distributed by the Central African Forest Initiative, supported by European donors and UN partners. The country's 155 million hectares of forest contains 140 metric gigatons of carbon, more than four times the world emissions in 1914. Nearly 40 million Congolese are dependent on resources from the forest for their survival.

The funding will allow the country to move from small forest projects to national-level forest protection. In the letter of intent signed by CAFI and DRC the country spelled out eight areas of focus against deforestation, including palm oil plantation development, illegal logging, infrastructure development, and mining. Sectors of income like agriculture have been seen as a way out of poverty. Forest management is usually on the back burner.

Hilda Diaz-Soltero, USDA, APHIS, ClimateWire, E&E Publishing Service

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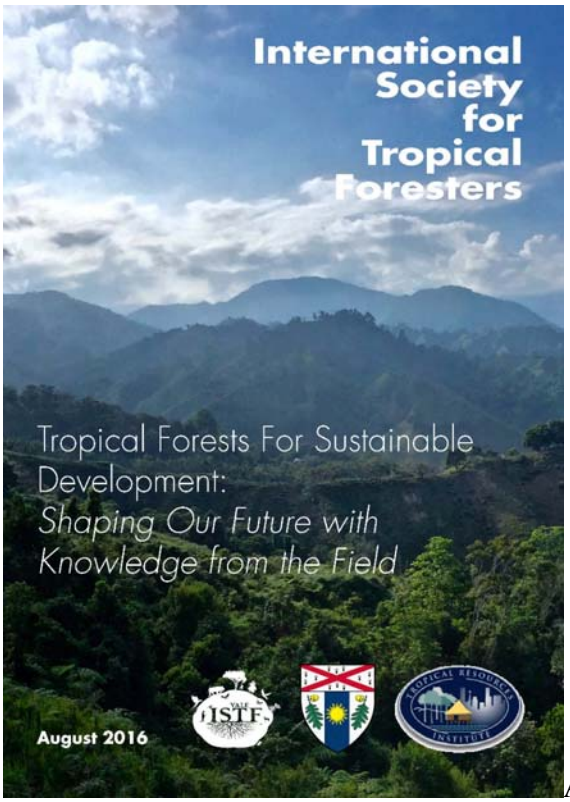
Other Publications.

Changing Trends of Forestry Research Demand (Tropical Forestry Handbook).

Abstract: Forestry research contributes significantly to the development and management of forest resources. Therefore, research on forestry should be as vigorous as the functions of forests in response to emerging trends and challenges. Strategic collaboration and partnerships among stakeholders in forestry research is thus the key to ensure the continuation and enhancement of benefits from forests for humans towards a sustainable future. Chapter copies are available from Dr. D.K. Lee. (leedk@snu.ac.kr)



Available at http://istf.yale.edu/publications

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The International Tropical Timber Organization (ITTO) releases the Tropical Timber Market Report two times per month. You can receive a free email subscription by signing up at their website:

http://www.itto.int/market_information_service/

IUFRO Electronic News

The newsletter is also available for download as a PDF or Word file at:
http://www.iufro.org/publications/news/electronic-news/.

FAO InFO News
A newsletter from FAO Forestry

The Food and Agriculture Organization's Forestry newsletter is available at this link:

http://www.fao.org/forestry/infonews/en/

Unasylva

http://www.fao.org/forestry/unasylva/en/ - An FAO forestry publication going back to 1947.

Global Forest Information Service (GFIS)

https://www.gfis.net/gfis/en/en/ (also available in Spanish and French) Global Forest Information Service contains up-to-date information on news, events, publications and job vacancies (on the homepage) and lists other info resources such as databases, as part of the GFIS system.
