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Building bridges for SFM

Transboundary conservation areas (TBCAs) can be defined as geographical areas that are ecologically connected across one or more international boundaries, the management of which involves some form of cooperation. ITTO has been a strong advocate and supporter of TBCAs for many years: through projects, for example, it has supported the creation and cooperative management of about 10 million hectares of forests straddling two or more national borders. In this edition we examine ITTO projects that have helped "build bridges" between Malaysia and Indonesia and between Guatemala and Mexico to better manage TBCAs, and other ways in which ITTO is helping connect the many aspects of sustainable forest management (SFM).

Paul Chai (page 6) describes a series of ITTO projects in the Malaysian state of Sarawak arising from the findings of ITTO's Sarawak Mission in 1990. The first project, which began in 1992 with the aim of strengthening the

management of the Lanjak Entimau Wildlife Sanctuary, ultimately comprised four phases that ended in 2012. Three other ITTO projects were implemented in the Pulong Tau National Park between 2005 and 2017. Combined with projects on the Indonesian side of the border, these have, among other things, enabled collaborative research and management between the two countries. In Sarawak, the projects have helped local communities find new sources of income, built capacity in natural resource management, and improved biodiversity conservation. The Sarawak Forestry Department's Community Service Initiative Unit is continuing work undertaken by ITTO projects, assisting local communities to pursue economic development opportunities and thereby ensuring the sustainability of project outcomes.

Edgar Selvin Pérez Pérez (page 10) reports on an ITTO project in the area of influence of the Tacaná Volcano on the border between Guatemala and

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Cover image: Community members cross a recently built bridge near the Pulong Tau National Park, Sarawak, Malaysia. Photo: © W. Cluny

Above: Minato-mirai, Yokohama, Japan, Photo: Y. Kamiid









Mexico. Despite the area's stunning beauty, most people living there are poor and the landscapes have become degraded. The aim of the ITTO project, which began in 2014 and was declared completed in November 2018, was to help improve the standard of living for people in the area based on the conservation and sustainable use of local forest resources. Among other things, the project has directly benefited more than 1500 families and helped institutionalize a binational coordination mechanism. A further two phases of the project are planned.

Elsewhere in this edition we report on the most recent session of the International Tropical Timber Council, which was held in Yokohama, Japan, last November. Among other things, the session featured interventions aimed at building a bridge—with sustainable supply chains—between SFM and the consumption of legal and sustainable tropical timber and other forest products.

In his opening address, the Council Chairperson Mr Zhang Zhongtian said that ITTO's internal governance meets or exceeds international standards and the Organization was "fully primed" to take a lead role in efforts to develop a more circular, sustainable economy. This was essential, he said, for averting disastrous climate change.

ITTO Executive Director Gerhard Dieterle (whose speech is reproduced on page 3) echoed Mr Zhang's comments. "ITTO has enabled major global shifts in policy in the past", said Dr Dieterle, especially in SFM, forest restoration and biodiversity conservation, and it is now time "for a more holistic and programmatic approach that places much more emphasis on integrated supply chains and markets".

As part of our coverage of the outcomes of the Council session we feature reports on two bridge-building events: the Annual Market Discussion (page 18), the message of which was that tropical timber producers need to work together more closely to promote the benefits of sustainably produced tropical timber, and a panel organized by the Civil Society Advisory Group (page 20), which urged the empowerment of women in forestry to enable them to play a much stronger role in SFM.

This edition of the TFU also contains an article by Rupert Oliver (page 26) probing a major structural change in the African timber industry, in which operations are reorienting away from the European market towards Asia. The business model based on the certification of natural forest has lost ground in Africa over the last decade, writes Oliver. Nevertheless, "the model's long-term potential should not be dismissed out of hand".

Oliver welcomes the local development of certification, exemplified by PAFC Gabon (which awarded its first certificate over an area of 600 000 hectares in early 2018), because it prioritizes regional institutional capacity and will likely be more responsive to regional conditions.

Oliver also reports that efforts to improve the image of tropical timber in European markets are starting to bring results. The French National Railway Company, for example, has recently reconsidered its avoidance of tropical timber, encouraged by a whole-life costing exercise that found azobé to perform well against alternatives such as creosotetreated softwood and concrete when all costs were taken into account.

Tropical timber has many excellent qualities with the potential to provide a sustainable alternative to energy-intensive or otherwise environmentally damaging products. But it will only become a universally accepted material of choice when its reputation has been fully repaired. Building bridges with consumers is an essential task ahead.

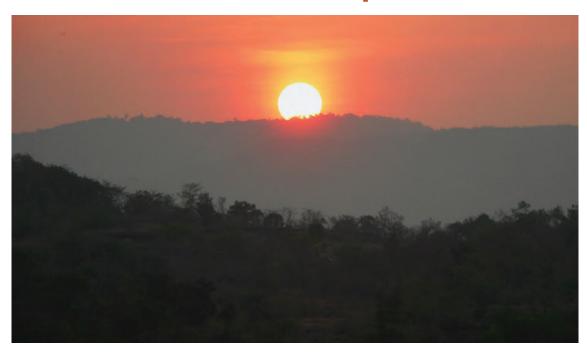
From the Executive Director

ITTO must move beyond piecemeal approaches to demonstrate its aggregated value and impact at a global scale



by Gerhard Dieterle ITTO Executive Director oed@itto.int

Address to the International Tropical Timber Council



Forests, climate and landscape: ITTO and the international forestry community need to move beyond insular solutions on carbon, biodiversity, timber and food towards integrated, landscape-based solutions that meet the varied needs of humanity. N. Bhumpakphan

After many years in which, in the eyes of citizens in industrialized countries, forest management and the use and trade of forest products were seen as major causes of forest degradation, deforestation and illegality, we now observe an increased awareness and recognition of the unique role that tropical forests play in mitigating climate change and producing the multiple forest products and services we need, including wood, clean water and biodiversity.

We now know, too, the potential tradeoffs between feeding the rapidly growing global population and providing it with sufficient forest goods and services. But the latest Special Report of the Intergovernmental Panel on Climate Change (IPCC), released on 18 October, makes it very clear: without massive investment in forests and the use of forest-based products as part of a bio-based, circular economy, there is little chance of keeping the global temperature increase within the Paris target of 1.5 °C.

This confirms the vision I presented at the Council session in Lima, Peru, in December 2017: we must focus on the role and use of productive forests before it is too late. Forests are needed not only to mitigate the climate and for other environmental reasons. The reality is, with a rapidly growing global population and middle class, especially in the tropics and particularly in Africa, we also need a drastically increased supply of forest products to provide materials for construction, wood-based energy, foods, medicines and other purposes.

Rightly, there is a great deal of discussion globally about food security for the 9.8 billion people projected to be living on the planet in 2050. In Africa alone, the population is expected to increase from 1.2 billion people today to 4.4 billion by 2100. But, in the same way we talk about food security for the people of the future, we need also to talk about their "wood security", their "water security", and so on.

New scientific evidence shows that, in addition to deforestation, which is well publicized, many remaining tropical forests are being degraded rapidly. Degraded forests are less able to meet the growing demands of society. If the already emerging supply gaps in an increasing number of tropical countries are not addressed through increased investment and legal and sustainable supply chains, pressure on remaining forest landscapes and protected areas will grow dramatically. There will also be a shift towards nonrenewable materials in construction and energy production, and many tropical producer countries will become net importers of wood products. Among other things, this would mean an enormous loss of jobs and economic development and an increase in outmigration from rural areas.

This is a challenging scenario for the future of tropical forests. We know, too, that there is increasing demand on forests in consumer countries. The IPCC Special Report highlights the need for industrialized countries to shift from the prevailing use of non-renewable materials and energy to renewables as part of a more circular economy. Despite the increased pressure on forests they might bring, forest-based solutions exist because, with recent technological advancements, almost everything now produced from fossil fuels can be manufactured using wood or bamboo-materials such as biofuels, bioplastics, biocomposites, nanocellulose, construction materials, biochemical products and packaging.

If managed properly, a shift towards a bio-based circular economy represents an immense opportunity for forests. But there is a strong risk that tropical producer countries will be unable to take full advantage because investors are focused increasingly on greening their supply chains in response to legality requirements in consumer markets; moving



Integrated: It's time for ITTO to take a more holistic approach that emphasizes integrated supply chains and markets, says ITTO Executive Director Dr Gerhard Dieterle. Photo: K. Sato/ITTO

investments to "safe" countries; and pursuing technologies to chemically and mechanically modify softwoods to simulate the characteristics of tropical hardwoods. These processes have started in Europe and Northern America and also recently in China—the world's biggest importer of timber and exporter of processed wood products.

The challenge for ITTO

The view in the ITTO Secretariat and more widely is that the global forest and climate regime needs to move beyond insular solutions on carbon, biodiversity, timber and food towards integrated, landscape-based solutions that meet the varied needs of humanity. And so too must ITTO. We must move beyond piecemeal approaches to projects and activities if we are to demonstrate the Organization's aggregated value and impact at a global scale. ITTO has enabled major global shifts in policy in the past, especially regarding sustainable forest management, forest restoration and biodiversity conservation, but I believe it is now time for a more holistic and programmatic approach that places much more emphasis on integrated supply chains and markets, as per our mandate under the International Tropical Timber Agreement, 2006.

Indeed, the Secretariat has already taken action based on the endorsement received at the Lima Council session. In addition to the implementation of projects under the regular work programme, we have taken strategic steps to return ITTO—and the role of productive forests and trade—to the centre of the international forest and climate agenda, using integrated supply-chain approaches as a guiding philosophy.

ITTO has the potential to greatly scale up its integrated work approach. It is crucial, indeed, that the Organization's various activities under the regular work programme, the Biennial Work Programme and the thematic programmes all contribute in concert towards our common goals. I believe the Organization would benefit from the development of a set of targeted work programmes, or "business lines", that enables us to better demonstrate our impact and to make our voice heard in the international arena. Our current thematic work areas all address important issues, but I believe that, taken together, they do not fully show the logic of the Organization's work. A thematic aggregation of pending projects and activities into business lines would, I feel, better enable us to tell ITTO's story while also ensuring a more cohesive approach to our work.

Most of the proposed projects and activities could be grouped into more than one business line. Common indicators would be needed for assessing outcomes, results and impacts. Building such an approach would also require important adjustments in how ITTO works, the most significant of which would involve:

- working in a more programmatic way;
- additional financing pathways to match the needs of producer countries with programmes of prospective sources of donor financing; and
- a stronger role for the Secretariat in assisting member countries to formulate and design proposals for projects and activities.

¹ See box for a proposed ITTO programme on legal and sustainable supply chains for tropical timber and timber products.

The way forward

This brings me to my last point: How do we align and increase funding for the important tasks mandated to ITTO?

The Strategic Action Plan, the thematic programmes, the Biennial Work Programme and the regular work programme are insufficiently connected and aligned, even though they have many similarities. The impact is clear: as it is now, ITTO cannot attract funding at scale in coherent work packages linked to international mainstream discussions and the funding policies of major donor organizations. Here we must recognize that the trend of declining funding for ITTO began many years ago, albeit aggravated by the recent financial impairment.

This is a very frustrating situation for producer countries, many of which have invested considerable effort to prepare excellent project proposals that regrettably have only a marginal chance of receiving funding despite positive evaluations.

The task ahead is to find ways to ensure coherence between the various projects and activities and to link them more strongly to the higher-level objectives of the Organization. This requires an approach in which the demands of producer countries are more efficiently matched at scale with the criteria of those major funding sources into which ITTO can tap. Although ITTO will always welcome requests for assistance from its producer member countries, this may mean changes in the way that projects are generated and presented to potential donors, including possibly more regional or other aggregated approaches on similar themes or business lines, as described above. We will be seeking to engage with new donor agencies and new funding entities within donor member countries. But we also need to continue rebuilding and strengthening links with those existing donors who have generously supported ITTO's work in the past as part of their commitment and responsibility to contribute to achieving the shared objectives of the International Tropical Timber Agreement, 2006.

In this opening address I have focused on some of the big-picture challenges and opportunities. We will have opportunities during the week to discuss our work in more detail. But let me finish now by expressing my firm belief that ITTO is now in a much stronger position than it has been for many years. There is an emerging view among major government, civil-society and private-sector stakeholders that productive forests and value chains are an essential element for meeting the demands of a rapidly growing global population and addressing global environmental and climate challenges.

This is an edited version of the speech that Dr Dieterle delivered to the 54th Session of the International Tropical Timber Council on 5 November 2018.

ITTO Programme on Legal and Sustainable Supply Chains for Tropical Timber and Timber Products

At the core of a programmatic approach, ITTO proposes to organize its future work along supply chains—from the resources in the forest to the end products for consumers. Such a legal and sustainable supply-chain approach would involve, among other things:

- assisting governments to build enabling institutional and policy frameworks for promoting legal and sustainable supply chains and enabling business conditions for actors operating in such chains;
- developing, promoting and implementing incentive mechanisms for increased investments in landscape restoration, legal and sustainable forest management and associated downstream supply chains, as well as measures for trade facilitation for legal and sustainable producers in producing and importing countries (including cross-border trade);
- building capacity in sustainable forest management, legal and sustainable forest production, the marketing and trade of timber and non-timber forest products, and (for customs and other government authorities) ensuring the legality and sustainability of international and domestic trade;
- promoting comparability and coherence among national and international regulations and standards related to legality and sustainability to facilitate compliance by the suppliers of legal and sustainable wood products; and
- advocating and raising awareness of the role of productive forests and sustainable wood in economic, social and environmental development, climate-change mitigation and adaptation, and the conservation of global biodiversity.

In implementing the proposed programme, ITTO would collaborate closely with members of the Collaborative Partnership on Forests, in particular under the Sustainable Wood for a Sustainable World initiative, as well as with governments, international partners, domestic bodies, trade organizations, and the private sector.

Sarawak's long journey

Long-running ITTO projects have worked with communities to conserve biodiversity, improve livelihoods and develop new protected-area management practices

by Paul P.K. Chai

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Long ride: A longboat heads up-river near the Lanjak Entimau Wildlife Sanctuary, Sarawak. Photo: P. Chai

Sarawak, a Malaysian state in northeastern Borneo, has a land area of 12.4 million hectares. Once it was covered almost entirely by forest, which was cleared only for settlements, shifting agriculture and family farming. Logging started in the peat swamp forest in the 1940s and spread to the hill forests. After the loggers had gone through, large forest areas were cleared for oil-palm and tree plantations. On the other hand, 1 million hectares of natural forests was reserved as totally protected areas (TPAs) in national parks, wildlife sanctuaries and nature reserves.

In the 1980s, certain quarters began raising serious concerns about Sarawak's forest management policies and practices, with allegations of overcutting and destructive logging. In response, the Sarawak government invited ITTO to send an independent mission to assess the sustainable use and conservation of its forest resources.

The "Sarawak Mission" subsequently observed that, although many TPAs had been created, more could be established to cover the complete range of forest and habitat types and thereby fully safeguard Sarawak's exceptionally rich biodiversity. Among other things, the Mission called for more international cooperation and assistance. Subsequently,



Custodian: This Penan headman is a local custodian of the Pulong Tau National Park. Photo: @ W. Cluny

ITTO funded a project in the Lanjak Entimau Wildlife Sanctuary (Figure 1) in 1992; ultimately, four phases of the project were implemented, ending in 2012. Three other ITTO projects were implemented in the Pulong Tau National Park (Figure 2) between 2005 and 2017.

Generating benefits

The projects in Lanjak Entimau and Pulong Tau shared the common objectives of promoting biodiversity conservation and community development. They provided a platform for more than 15 university graduates to be trained in research in forest ecology, flora and fauna and to learn about sustainable forest use and protected-area management. The sizes of the two TPAs were increased. Local communities living in the peripheries of the TPAs were offered opportunities to share the benefits of conservation through sustainable use and participation in TPA management. This has helped alleviate community concerns about livelihoods and user rights to the forest.

For its part, the Sarawak Forest Department, which was the executing agency of the ITTO projects in both Lanjak Entimau and Pulong Tau, has made significant contributions to community-based development by providing gravity-fed water supplies, suspension bridges across dangerous rivers, and housing for Penan communities.

Closing the gap

In Sarawak, all communities living within an area to be made into a TPA are required to move out after the government pays compensation for land and properties. Many affected people are unhappy that their forests have been taken away from them; in the early days, some alleged that the government created the TPAs in order to give them to timber companies. Although this was untrue, it is certainly true that conservation efforts are often misunderstood in Sarawak.

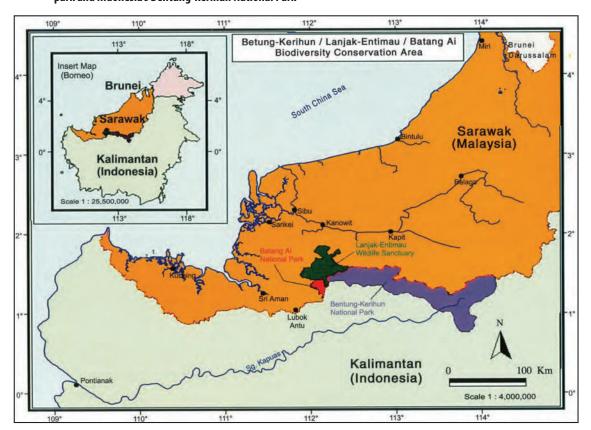


Figure 1: Transboundary conservation area involving Sarawak's Lanjak-Entimau Wildlife Sanctuary and Batang Ai National park and Indonesia's Bentung-Kerihun National Park

Early in the Lanjak Entimau project, ITTO project personnel were confronted on several occasions by local Iban communities and barred from entering the sanctuary. With improved communication, understanding and trust, however, such confrontation soon turned to friendship and cooperation. Community development and conservation management activities have helped in building partnerships between the government and local people.

The people are still concerned about the negative effects of logging but have come to understand that forestry is an important source of revenue for the government. For the rural communities who live in about 5000 villages scattered throughout Sarawak, logging roads have become a necessity for communication and transport, and they have opened up opportunities for better education, health and other services. Ideally, a win—win situation can be obtained through sustainable forest management policies and practices.

Governmental agencies have found it necessary to engage local communities in protected-area management—to be their "eyes and ears" when there is little or no on-the-ground management presence. Local communities have great knowledge of the forest and those living near the TPAs are aware of the activities of timber licensees and contractors operating in production forests close to the TPAs.

Nurturing community spirit

The introduction of aquaculture in valley ponds, later combined with the *tagang* system, has enabled longhouse families to work together in teams that share responsibilities

and benefits from commercial ventures. The adapted *tagang* fishery system operates on the principle that if people refrain from overfishing in a river, the fish will return. Its success depends on community cooperation in its management, which includes good financial control and strictly no stealing. Three Ulu Engkari longhouses that started using the *tagang* system in 2010 have each been able to earn up to USD 2000 per harvest, prompting other communities to follow suit. *Tagang* is also an excellent way to promote conservation and sustainable use—there is less need to go into the forest to hunt and fish, and outside hunters and fishers have been stopped from entering the sanctuary.



Offering: The *tagang* fishery system, introduced in the buffer zone of the Pulong Tau National Park, helps restore fish resources in natural rivers and enables a sustainable offtake. *Photo:* © *W. Cluny*

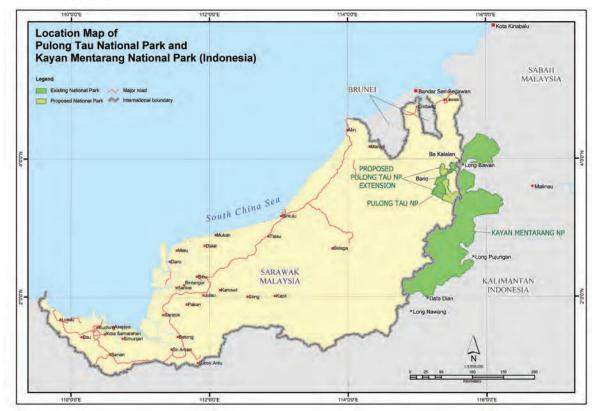


Figure 2: Transboundary conservation area involving Sarawak's Pulong Tau National Park and Indonesia's Kayan Mentarang **National Park**

Transboundary cooperation

ITTO-supported projects in Sarawak and Indonesia led to the establishment of the Lanjak Entimau-Betung Kerihun Transboundary Biodiversity Conservation Area in 1994, the first transboundary conservation area (TBCA) in the humid tropics. This was followed by a second TBCA in 2005 between Sarawak's Pulong Tau National Park and Indonesia's Kayan Mentarang National Park. In both TBCAs, joint scientific expeditions were conducted with funding from ITTO. Due to differences in political, administrative and legislative structures and practices between the two countries, the Lanjak Entimau-Betung Kerihun expedition recommended that collaborative management and research would, in general, be the best option for TBCAs. Transboundary cooperation involves a commitment by two or more countries to share responsibilities in biodiversity conservation, which is especially necessary in the humid tropics. Transboundary activities between Sarawak and Indonesia, stimulated by ITTO projects, continue today.

The Penan

The Pulong Tau National Park is located in the northern highlands of Sarawak, home to the Kelabit, Lun Bawang and Penan peoples. The Penan people in the buffer zone live in four villages comprising 52 families and about 250 individuals. The Penan roamed the forests in the upper Baram before the Pulong Tau National Park was constituted in 2005 but, under Sarawakian law, they were not granted user rights to the forest because of their nomadic lifestyle. Nevertheless, the people



Family process: A Penan family extracts sago starch from the fibrous pith of a *Eugeissona utilis* palm harvested in the buffer zone of the Pulong Tau National Park. Photo: @ W. Cluny

are culturally attached to the forests, which they depend on for energy, food, construction materials, handicrafts and medicines. It is crucial for their culture, therefore, that they remain in the area.

The traditions of the Penan are strongly compatible with sustainability. For example, starch obtained from the wild sago palm (Eugeissona utilis) is an important staple food, especially among older people. The Penan communities in the buffer zone have disallowed logging in certain areas to protect their water catchments and plant and animal resources, including sago palms.

The communities lack modern education and employment, however, and they have struggled to develop new livelihoods that suit their changed circumstances. The ITTO projects,



Constructive: The ITTO project provided Penan communities with training—conducted by carpenters from the Sarawak Forest Department—in furniture-making using timber harvested near the Pulong Tau National Park. Photo: © W. Cluny

together with the Sarawak Forest Department, helped build the capacity of the Penan to grow fruit crops, create fisheries, make handicraft products for sale, and improve their housing and water-supply infrastructure. The projects also identified three communal forests to be managed for the long-term supply of forest products.

Under the ITTO projects it was determined that Pulong Tau's 6000-hectare buffer-zone forest could provide the Penan families with a resource base, as well as perform other functions such as protecting the core area and water catchments and serving as additional habitat for biodiversity. To secure this resource, the government has proposed the designation of three communal forests within the buffer zone. The project has also provided the Penan families with training in crop cultivation, tagang fishery management and carpentry and helped them apply for birth certificates and identity cards. Continued support is needed for the now-sedentary Penan families to become self-reliant.

Project reporting

The ITTO projects conducted a wide range of studies in Lanjak Entimau and Pulong Tau on, for example, the socioeconomic situation, environmental education, geology, soils, forest ecology, flora (including fungi and non-timber forest products), fauna (e.g. orangutans, mammals, birds, reptiles, amphibians, fish and insects), and community development. In total, 18 technical reports and two management plans were produced for Lanjak Entimau, and 24 technical reports and one management plan were generated for Pulong Tau. Among other things, project activities and findings have been used to report on Sarawak's progress in the Heart of Borneo Initiative.

Project sustainability

In this context, project sustainability means that local communities continue to receive guidance, advice, training and funding to enable them to maintain existing activities and start new ones. In 2011, the Sarawak Forest Department formed the Community Service Initiative Unit to continue the work undertaken as part of ITTO projects. To expand



Well stocked: The Penan say that the forest is their supermarket. Photo: © W. Pahon

activities outside the project areas, the unit was upgraded to the Social Forestry Division in April 2016. Since then, community development activities have been duplicated in other areas to include the restoration of useful resources affected by habitat destruction, particularly rattan, agarwood and fruit crops.

Conclusion

In Sarawak, TPAs are the last frontier for biodiversity conservation and gene banks, especially of timber trees. The studies in Lanjak Entimau and Pulong Tau have collected a large amount of scientific data and knowledge that can be used to improve conservation management and advance research in sustainable forest management, agroforestry and biotechnology. The projects have also conducted ethnobotanical studies on food, materials, medicines, ornamentals and cultural uses among Iban and Penan communities. Science and biotechnology are seen as a way forward for Sarawak, prompting a recent government announcement to offer 200 scholarships for masters and doctoral theses to encourage research and build capacity. ITTO-supported projects have met the call for international cooperation and assistance in Sarawak to improve biodiversity conservation and livelihoods. Nevertheless, there is more to be done—a good reason for continuing the partnership between Sarawak and ITTO.

Publications produced by the projects can be found by inserting the project codes PD635/12 Rev.2 (F), PD288/04 Rev. 2 (F), PD044/00 Rev.3 (F), PD016/99 Rev.2 (F), PD015/95 Rev.3 (F) or PD106/90 Rev.1 (F) into the ITTO project search function at: www.itto.int/project_search

In the shadow of a volcano

An ITTO project has initiated a multifaceted sustainable development approach in the Tacaná Volcano area of influence on the border between Mexico and Guatemala

by Edgar Selvin Pérez Pérez

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Late mist: The sun sets behind Tajamulco Mountain, as viewed from the flanks of the Tacaná Volcano on the Guatemala/Mexico border. Photo: Edgar Pérez/HELVETAS

The Tacaná Volcano border area straddles the department of San Marcos in Guatemala and the state of Chiapas in Mexico and is part of the Mesoamerican Biodiversity Corridor. The Tacaná Volcano is more than 4000 metres high, and its flanks are largely forested.

The Tacaná Volcano area of influence encompasses more than 6000 people living in the Tacaná Volcano Biosphere Reserve in Mexico and the Tacaná Volcano Permanent Prohibition Zone, the Canjulá Regional Municipal Park and the Municipality of Sibinal in Guatemala; moreover, an estimated 27 000 people benefit from the area's environmental services, including water provision. Despite its biological richness and ecotourism potential, however, most people in the area live in poverty and amid considerable environmental degradation.

The ITTO project, which began in June 2014 and was declared completed at the 54th Session of the International Tropical Timber Council in November 2018, was designed to be the first phase of a three-phase process. Its development objective was "to contribute to improving the living standards of the Guatemalan and Mexican populations living in the Tacaná Volcano and its area of influence based on the conservation and sustainable use of local forest resources". Specifically, the aim of the project was to launch a participatory process for natural resource and biodiversity management, conservation and use in the vicinity of the Tacaná Volcano.

The project was developed through a bottom-up approach that included consultations with local communities, organizations, councils and municipalities and with national government bodies in Guatemala and Mexico. Both countries are part of the Group of Like-Minded Megadiverse

Countries,² which have joined efforts in negotiating the development of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. Cooperation between Guatemala and Mexico has accelerated since 1998 with the signing of an agreement on technical and scientific cooperation, under which a working group on protected areas began work in 2009 to promote the conservation and sustainable management of the Tacaná Volcano. Planning by the working group led to the involvement of HELVETAS Swiss Intercooperation (a Swiss donor organization) and ultimately to the ITTO project.

Key outcomes

The project has consolidated the participatory management, conservation and sustainable use of natural resources and biodiversity in the volcano's area of influence. The implementation strategy was based on inclusive social and institutional involvement. Decision-making was empowered at all levels—local communities, local governments, and agencies in charge of forests and biodiversity in both countries. The latter included the National Council for Protected Areas (Consejo Nacional de Áreas Protegidas— CONAP) and the National Forest Institute (Instituto Nacional de Bosques-INAB) in Guatemala and the National Commission for Natural Protected Areas (Comisión Nacional de Áreas Naturales Protegidas—CONANP) and the National Forestry Commission (Comisión Nacional Forestal—CONAFOR) in Mexico.

PD 668/12 Rev.1 (F): "Integrated management of natural resources and biodiversity in the Tacaná Volcano and its range of influence in Mexico and Guatemala"

² Megadiverse countries are countries that harbour the majority of the Earth's species and high numbers of endemic species and are therefore considered extremely



People planning: The project launched a participatory process for natural resource and biodiversity management, conservation and use. Photo: Edgar Pérez/HELVETAS

In its first phase, the project gained the trust of stakeholders and validated the model for forest management and environmentally friendly livelihoods. Among other things, the model has helped to better capture the value of the area's environmental services (such as water provision and biodiversity conservation).

The project benefited 1534 families directly and approximately 7000 people indirectly. Seven economic initiatives implemented as part of the project have: strengthened the local economy due to their high profitability; developed new capacities in local grassroots organizations; increased the participation of women; and facilitated the signing of agreements with ten cooperatives (including two cooperatives formed as a result of the project), associations and community development councils. Moreover, financial mechanisms put in place by CONAFOR (in Mexico) and INAB (in Guatemala) have ensured the sustainability (over a ten-year horizon) of project-stimulated actions in forest conservation, reforestation and restoration. As of August 2017, CONAFOR and INAB have provided a total of USD 949 492 in incentives or subsidies for forest conservation, restoration and management.

The project at ground level

The main project activities are described below.

Forest restoration using native species

A total of 195 hectares (ha) was restored, comprising local restoration areas of 49 ha (33 ha in Mexico and 16 ha in Guatemala), 113 ha of forests subject to forest conservation plans by INAB and CONAFOR and actions financed by CONANP's Endangered Species Conservation Programme (Programa de Conservación de Especies en Riesgo), and 33 ha of new areas listed under the conservation modality through the INAB financial mechanism. For the latter, incentives are to be paid to local owners in instalments of about USD 390 per ha per year over the next ten years.

Both countries are conducting trials on the transplanting of native seedlings ("wildlings") from forests to restoration areas, and several nurseries have been established. Native species being planted include Ocotea salvinii, Litsea

glaucescens, Hedyosmum mexicanum and Styrax magnum, which are all sources of food for regional endemic birds such as pavo de cacho, quetzal, pasha, green toucanet and pinkheaded warbler. The forest restoration work has helped increase the continuity and connectivity of forest patches in the landscape and the availability and quality of water as an environmental service.

Rainbow trout

Fourteen ponds have been established in the Cooperativa Vega del Volcán (CIAVEV) in Guatemala to produce 3.175 tonnes of rainbow trout per year. The direct beneficiaries are four women and ten men, but the work enabled CIAVEV to increase its income, thereby benefiting all its members and workers and generating about 648 temporary and 70 permanent jobs. The initiative helped increase the incomes of beneficiary families by USD 612 per 8-month production cycle. The internal rate of return (IRR) of the venture has been calculated at 15% and the net present value (NPV) at USD 141 848. CIAVEV has increased its technical and management capacity, and local perceptions have changed on trout production and sustainability and the potential to farm fish while maintaining water quality and quantity.

Rose production

The project assisted in the construction of 21 greenhouses in the communities of Toniná and Nuevas Maravillas in Guatemala and one greenhouse in Talquián, Mexico. Each greenhouse produces an average of 940 dozen roses per year, generating income of about USD 273 per month for each participating family (one greenhouse per family) and a total income of about USD 70 000. The financial analysis indicated an IRR of 52% and an NPV of USD 13 604. The greenhouse project has enabled self-employment, generated economic income, and encouraged commerce among neighbouring communities in both countries. It especially



Fish farm: The project helped construct fishponds for the production of rainbow trout as part of efforts to assist local people to increase their incomes in the Tacaná Volcano area. Photo: Edgar Pérez/HELVETAS



Budding enterprise: Villagers construct a greenhouse for growing roses for commercial sale as part of project activities aimed at increasing incomes for local people. Photo: Edgar Pérez/HELVETAS

empowered the women and young members of participating families through their involvement in the whole value chain, from production through to sales to consumers in both countries.

Waterfall tourism—Mexico

The Eskiap Kian Muj Cooperative Society of Toquián y Las Nubes promotes nature tourism at three waterfalls (La Calera, Mixcun and El Soche) in the vicinity of the Tacaná Volcano. These areas are attractive to tourists because of their biodiversity, cultural and scenic values and waterrelated ecosystem services. During project implementation, target beneficiaries received support for capacity building in customer service, local guide services, organization and entrepreneurship. The project also helped improve infrastructure and equipment, including by refurbishing a restaurant and supplying kitchenware. Overall, the project's financial analysis indicates an IRR of 39% and an NPV of USD 2921.

The Keyla Group's natural products in Mexico

The project worked with rural women in the area of influence to help them develop business skills and enable them to produce products based on local medicinal plants. The project also provided training and legal support to enable the incorporation of eight women's groups, which worked to develop an economically, socially and environmentally sustainable enterprise involving traditional knowledge of locally available medicinal plants, the organic production of medicinal plants in backyard orchards, and improvements in the value chain. Another 12 families benefited as providers of raw materials and workers. The project's financial analysis estimated an IRR of 15.5% for this activity, which was also supported by the Cacahoatán Municipality and the National Commission for Protected Areas.

Tourism on the Guatemala— Mexico Binational Hiking Trail

The rural cooperatives Casa de Fuego in Mexico and Cooperativa Integral Llanuras del Tacaná in Guatemala worked together to improve mountain climbing and nature tourism services in the Tacaná Volcano area. Overall they improved 7.4 km of trails, including by providing signage, rest areas, basic toilet facilities, and two visitor registration stations. The increase in tourism was valued at USD 87 720 in the 2017/18 financial year. The project promoted interaction between tourism-related institutions in Guatemala and Mexico and the development of an integrated plan to improve tourism activities in the two countries. This work led to the commencement of direct transportation services between San Marcos and Tapachula and the convening of tourism fairs for the sharing of experiences and the coordination of tour operators.

The project helped improve 1.23 km of a birdwatching trail near the Vega del Volcán village in forest where the sighting of pavo de cacho is all but guaranteed (the forest is also the catchment for water used in the trout-farming initiative). It is expected that this small activity will benefit 27 families in the village; it was implemented by CIAVEV in cooperation with the community development council. The project helped train and equip guides for birdwatching tourism.

The project strengthened interinstitutional cooperation with a view to obtaining binational approval for a joint study and plan to promote binational ecotourism; developing a proposal for an integrated management plan for the Tacaná Volcano area; and undertaking a technical study to categorize the permanent prohibition zone in Guatemala as a biosphere reserve with the ultimate aim of establishing a binational biosphere reserve in the area.



Rosy future: A women smells a rose grown in a greenhouse in the Tacaná Volcano area of influence as part of income-generating activities promoted by the project. Photo: Edgar Pérez/HELVETAS

Conclusion

Phase I of this long-term project has laid the foundations for a sustainable development model in the Tacaná Volcano area. This model encompasses, among other things, the provision of funding in the form of incentives or subsidies from forest authorities in both countries; economic initiatives linked to biodiversity, tourism and the empowerment of women with a high level of local co-responsibility and in-kind and cash contributions by counterparts; the institutionalization of a binational coordination mechanism to ensure long-term continuity; and the further strengthening of governance (i.e. in government, civil society and formal and traditional institutions) to enable relevant agencies to perform their duties within a framework of legitimacy and shared responsibilities at the national and local levels.

The main legacy of this phase of the project is greater awareness among local people and institutions about the importance of conservation for local economic development. Without forest and water conservation, no initiative will be sustainable or attract external support.

The piloting of productive activities, coupled with the provision of incentives or subsidies, constitutes—both in practice and according to local development theory—a model that can be replicated and expanded. The involvement, financing and support of CONANP, CONAFOR and INAB has been key because of the social and institutional resilience this has conferred.



Eagle eyes: Villagers receive training as birdwatching guides as part of efforts to ensure they benefit economically from biodiversity in the Tacaná Volcano area. Photo: Edgar Pérez/HELVETAS

Acknowledgement

The author thanks the governments of the United States of America and Japan for their financial contributions to the project and ITTO for its innovative approach, which seeks to achieve sustainable economic, social and environmental outcomes through its project work.

Publications produced by the project can be found by inserting the project code PD 668/12 Rev.1 (F) into the ITTO project search function at: www.itto.int/project_search. Videos of the productive activities can be viewed at the ITTO YouTube channel at www.youtube.com/user/ittosfm/videos

ITTO on cusp of exciting period, says Council chair

The most recent session of the International **Tropical Timber** Council heard that efforts to encourage sustainable supply chains, increase the role of women and cooperate on promoting sustainable tropical timber will help build momentum for the Organization

by the ITTO Secretariat



New era: Zhang Zhongtian, Chairperson of the International Tropical Timber Council, speaks at the opening of the 54th Session. Photo: K. Sato/ITTO

ITTO's internal governance now meets or exceeds international standards and the Organization is poised to resume its leadership role in the global forest community, according to the Chairperson of the International Tropical Timber Council, Mr Zhang Zhongtian.

The International Tropical Timber Council meets at least once a year to discuss a wide-ranging agenda aimed at promoting sustainable tropical forest management and the trade of sustainably produced tropical timber. Its 54th session was held on 5-9 November 2018 at ITTO headquarters in Yokohama, Japan.

In a speech at the opening of the session, Mr Zhang said that the recently published Special Report of the Intergovernmental Panel on Climate Change had sent a clear signal about the crucial importance of productive forests, sustainably produced forest products and a circular economy in averting disastrous climate change.

"Since its very beginning, ITTO has, through policies and field projects, promoted sustainable forest management, sustainable timber production and sustainable trade in forest products," said Mr Zhang. "We are a long-time leader, therefore, in efforts to develop a more circular, sustainable economy. With its now best-practice governance, ITTO is fully primed to assume a lead role in this renewed global push for sustainable supply chains."

In his address on the first day of the session, ITTO Executive Director Dr Gerhard Dieterle said the world must focus urgently on the role of productive forests in mitigating climate change. To make the most of the opportunity, tropical countries needed to create sustainable supply chains that demonstrate to consumers that timber has been harvested and traded legally and sustainably.



More forests: Côte d'Ivoire's Minister of Water and Forests, Alain-Richard Donwahl, speaks about his country's plan to increase forest cover. Photo: K. Sato/ITTO

For ITTO, said Dr Dieterle, "I believe it is now time for a more holistic approach that places much more emphasis on integrated supply chains and markets, as per our mandate under the International Tropical Timber Agreement".

Also at the opening of the session, Côte d'Ivoire's Minister of Water and Forests, Mr Alain-Richard Donwahl, spoke about his country's plan to increase forest cover from 11% of the total land area today to 20% by 2030. In implementing this plan, he said, the main priorities were improving forest governance, strengthening the conservation of existing forests, and restoring degraded forestlands.

Mr Donwahl also spoke about an ITTO project to promote community forestry, which, he said, had helped strengthen community cohesion in the wake of violence associated with a socio-political crisis. The project had been so successful that the government was now hoping to scale it up to other communities in a second phase involving ITTO, the Japan International Cooperation Agency and other international organizations.

Mr Felix Ngoma, Ambassador of the Congo to Japan, presented a speech on behalf of the Congo's Minister of Forest Economy, Rosalie Matondo, who was unable to attend the session. Mme Matondo has recently been appointed ambassador for the Brazzaville Roadmap on Community Forestry with the mission to oversee progress in implementing the roadmap in all Central African Forestry Commission member countries.

In managing the Congo's production forests, it is crucial to "take into account the needs of local communities so they can share the profits from timber activities and women are not left behind," according to Mme Matondo.



Shifting policies: Benito Owusu-Bio, Deputy Minister of Lands and Natural Resources in Ghana, speaks about the shift in his country's forest policy towards payments for ecosystem services. *Photo: K. Sato/ITTO*

Mr Benito Owusu-Bio, Deputy Minister of Lands and Natural Resources in Ghana, spoke about the shift in his country's forest policy towards payments for ecosystem services, ecotourism development, plantation development, and the potential of forests to mitigate climate change.

Mr Koji Hongo, Deputy Director General of the Japan Forestry Agency, said the Government of Japan appreciated the steps ITTO had taken to strengthen its financial rules and was now making efforts to resume voluntary financial contributions to the Organization.

Mr Katsunori Watanabe, Deputy Mayor of the City of Yokohama, Japan, spoke about the city's water-catchment forests, which the governments of Yokohama and Doshi had been co-managing for more than 100 years. Council delegates visited these forests on a field trip during the session.

Mr Hiroto Mitsugi, Assistant Director General of the Food and Agriculture Organization of the United Nations (FAO), said his organization and ITTO would continue working closely together as part of the Collaborative Partnership on Forests, including to ensure that sustainable timber value chains work for the achievement of the Sustainable Development Goals and climate-change mitigation.

ITTO data confirms major shift in tropical timber trade

In less than a decade, a significant shift has occurred in Africa's market destinations for tropical primary products from the European Union (EU) to Asian markets, mainly China and increasingly Viet Nam, according to a report presented to the Council at its 54th session.

Fran Maplesden presented "elements for the biennial review and assessment of the world timber situation 2017–2018", summarizing data on tropical timber production and trade obtained from ITTO member countries and other sources.

The Asia-Pacific remains the dominant tropical sawnwoodproducing region, said Dr Maplesden, but Latin American production has fallen sharply, largely reflecting declining production levels in Brazil.

The Council also received a presentation from the World Bank's Werner L. Kornexl on "fiscal mechanisms for a sustainable forest sector". Dr Kornexl said the World Bank has been working with ITTO for several months on a promising initiative to look at fiscal mechanisms, incentives, transfers and revenue management in the forest sector.

"We are facing a new environment [in which] illegal activities are rampant. Illegal trade of logs, wildlife, charcoal, fuelwood and other natural resources is increasing and illegal networks are becoming more efficient," he said.

This not only erodes natural assets, it creates unequal market conditions and disincentives for sustainable timber production. The aim of the joint initiative is to identify strategies to enable poor forest-dependent people to improve their livelihoods and emerge from poverty, said Dr Kornexl.

Dr Juergen Blaser from the Bern University of Applied Sciences presented initial efforts to revise the ITTO Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests, and Dr Milena Sosa Schmidt from the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) reported on ongoing cooperation between ITTO and CITES to implement the CITES Tree Species Programme.

European companies more at ease with FLEGT import procedures—survey

A 2018 survey of companies in Europe on the impact of the EU's Forest Law Enforcement, Governance and Trade (FLEGT) timber legality initiative has found that most companies now consider that FLEGT licensing is making it easier to import timber products from Indonesia.

The survey of 96 companies in key countries in the EU was conducted between May and October 2018 by the Independent Market Monitoring (IMM) mechanism. The IMM was established under an EU-funded ITTO project to support the implementation of bilateral voluntary partnership agreements (VPAs) between the EU and timber-supplying countries and to analyze their market impacts. VPAs are a key element of the EU FLEGT Action Plan, which defines the EU's policy for promoting legal logging and the trade of legal timber.

To date, Indonesia is the only country to have commenced exports of VPA-licensed timber. In 2017 the country issued 200 000 "V-legal certificates" worth about USD 10.8 billion.

"EU operators have become accustomed to FLEGT-licensed import procedures," said Sarah Storck, who co-presented a report on the IMM's work during the 54th Council session. "In 2018 compared with 2017, a much higher proportion of

... ITTO on cusp of exciting period, says Council chair



Improving: Community members tend a sapling of fraké planted as part of a recently completed ITTO project that, among other things, helped rehabilitate degraded land in the Duekoue gazetted forest in Côte d'Ivoire. Photo: E. Amonkou

surveyed companies reported finding that import procedures were more easily managed and a much lower proportion of companies reported difficulties."

On the other hand, said Ms Storck, "the survey revealed signs of 'FLEGT' fatigue, likely partly due to the lack of FLEGTlicensed timber from countries other than Indonesia".

"FLEGT licences can underpin market development for tropical products in the EU, but it's a long-term process," said Rupert Oliver, Ms Storck's co-presenter of the IMM report.

"A wider geographic spread—beyond Indonesia—is essential for the market development of FLEGT licences," concluded

ITTO provides ongoing support for the IMM with funding from the EU.



At ease: IMM lead consultant Sarah Storck says that European companies now think FLEGT licensing is making it easier to import timber from Indonesia. Photo: Y. Kamijo

Projects declared completed

During the session, the Council's technical committees reviewed ITTO-funded projects and activities and declared several completed.

One of these involved the rehabilitation of about 5500 hectares of degraded forest around the Duékoué and Scio gazetted forests in the western part of Côte d'Ivoire. This locality has a large population of internally displaced people and refugees who, along with local people, were assisted by the project to establish taungya agroforestry systems and to enrich and protect natural forests using high-quality seeds of indigenous and exotic tree species.

The project led to the establishment of nine cooperatives (with more than 7000 members) in nine villages for the management of warehouses, the installation of food-processing equipment in those warehouses, and management training for selected members of the cooperatives. According to the completion report presented to the Committee on Reforestation and Forest Management, the project has helped improve the living standards of beneficiaries and the daily lives of women and contributed to food security.

The Committee on Reforestation and Forest Management also received a completion report of a project in Brazil that developed—using participatory processes—five community forest management plans in 19 communities in the Maués forest. These plans have been submitted to the state government and, to date, two have been licensed. The communities have gained considerable knowledge and skills in sustainable forest management and are moving towards sustainable community forest management and production. Among other things, the project has helped empower women through an ongoing community development process.

The joint session of the Committee on Economics, Statistics and Markets and the Committee on Forest Industry received the completion report of a project in Indonesia that has helped local communities boost incomes by producing and adding value to bamboo products.

Indonesia has a long history and tradition in the use of bamboo for houses, furniture, handicrafts and musical instruments. Bamboo sequesters carbon, making it an environmentally friendly, renewable material. The aim of the project was to assist local communities in pilot areas to increase, add value to and better manage their bamboo resources. Among other things, the project created a new bamboo treatment facility in East Nusa Tenggara Province aimed at increasing the longevity of bamboo products using a non-chemical, environmentally friendly preservation treatment. The project also developed a model for capacity building in Bali Province that can be replicated elsewhere in Indonesia as part of the government's "1000 Bamboo Villages" programme, which is designed to support the development of a thriving national bamboo industry.

Netherlands' agriculture viceminister wants ITTO to lead

In an address to the Council during the session, Ms Marjolijn Sonnema, Vice-Minister for Agriculture at the Ministry of Agriculture, Nature and Food Quality in the Netherlands, said her country has been a committed and devoted adherent to ITTO's mission from its very beginning.

Forests, said Ms Sonnema, have the potential to make a major contribution to the achievement of the 2030 Sustainable Development Agenda and the Sustainable Development Goals. This represented an opportunity for ITTO, and she urged the Organization to develop a concise, clear and focused strategy.

"ITTO can and must take the lead," she said.

Members, partners, table USD 3.8 million

A total of USD 3.83 million of voluntary contributions was pledged or confirmed at the Council session. This amount includes confirmation of a pledge of about USD 1.24 million made by the Government of Germany at the previous session in 2017. The voluntary contributions will be used for a range of activities in the Organization's Biennial Work Programme.

ITTO Fellowships were awarded to 22 applicants, including six women, from 12 producer member countries, at a total value of about USD 140 000.



Potential: Marjolijn Sonnema, the Netherlands' Vice-Minister for Agriculture, says forests have the potential to make a major contribution to the achievement of the 2030 Sustainable Development Agenda and the Sustainable Development Goals. *Photo: K. Sato/ITTO*

Donors at the session included Germany, the United States of America and the Republic of Korea.

During the pledging session, the European Union indicated that the European Commission was considering contributing about EUR 300 000 for activities in the Biennial Work Programme and hoped to confirm this by the end of 2018.

The Council made several decisions, mainly related to administrative measures and to fundraising designed to generate more resources for fulfilling ITTO's mandate. The Council adopted the ITTO Anti-money Laundering and Counter Terrorism Financing Policy and reached a decision on the issue of rotation in the framework of the selection of the Executive Director.

All decisions made at the session, and other Council documents, including financial statements, are available at www.itto. int/council_committees/decisions and www.itto.int/council_committees/documents

Daily highlights of the 54th Session of the International Tropical Timber Council, including photos, presentations and videos, are available at www.itto.int/ittc-54

More cooperation needed to promote sustainably produced tropical timber



Credible partner: Eric D. de Munck from the Netherlands Timber Trade Association outlines wide-ranging successful efforts within the trade in the Netherlands to address public perceptions of tropical timber. Photo: Y. Kamijo

Tropical timber producers, importers, governments and communities need to work more closely together to increase the impact of efforts to promote the benefits of sustainably produced tropical timber in consumer markets.

This was the message to emerge from the 2018 ITTO Annual Market Discussion, which took place as part of the 54th Session of the International Tropical Timber Council. ITTO hosts these discussions annually as a way of informing its members of key trends and issues in the tropical timber trade and industry and increasing interactions between governments and trade representatives.

The 2018 Discussion, which was organized by the Council's Trade Advisory Group (TAG), addressed the theme of private-sector tropical timber promotion initiatives and opportunities for increased collaboration.

"Today's presentations and discussions show there would be major advantages for the sector if tropical timber producers, tropical timber traders and other stakeholders could combine their messages," said Discussion Chair, André de Boer. "We need to present a united front to convince consumers of the very real advantages of using sustainably produced tropical timber."

Participants in the Discussion heard that, despite advances in sustainable tropical forest management, certification and legality verification, the tropical timber trade faced major challenges, such as changes in species mixes and preferences and declining market share in the face of competition from engineered wood and alternative non-wood materials.

The Discussion featured presentations from seven trade experts and representatives of trade organizations.

Benoît Jobbé-Duval from the International Tropical Timber Technical Association (ATIBT) provided background on ATIBT efforts to establish the "Fair and Precious" brand for tropical wood products. The aim of the initiative, which has been conceived by Forest Stewardship Council-certified member companies of ATIBT, is to promote certified tropical timber and show the environmental, social, economic and technical benefits of tropical timber consumption.

Françoise van de Ven, Secretary-General of the Union des Forestiers Industriels du Gabon et Aménagistes, said there are more than 3 million hectares of FSC-certified forests in Gabon. Despite the effort and expense companies had invested to certify forests, however, this has not been reflected in increased remuneration for producers. Without adequate financing of long-term promotion, she said, consumers will continue to see only negative reports on tropical timber harvesting.



More promotion: Françoise van de Ven, Secretary-General of the Union des Forestiers Industriels du Gabon et Aménagistes, says there are more than 3 million hectares of FSC-certified forests in Gabon. Photo: Y. Kamijo

Qian Meng from the Chinese Academy of Forestry provided an overview of the Global Green Supply Chain Mechanism, an initiative of China's private timber sector. The vision of the Mechanism's founding members is to "establish a stable and orderly green supply chain for global forest products in order to promote the green and sustainable development of forest resources and products".

Eric D. de Munck from the Netherlands Timber Trade Association said tropical wood importers in his country have long been accused of encouraging deforestation. Ultimately, however, the trade had taken responsibility for its imports, committing to no longer importing timber that could be illegal and progressively increasing the proportion of imports consisting of sustainably produced timber. The target for 2020 is 90%.



No premium: Ngo Sy Hoai, Vice Secretary General of the Vietnam Timber and Forest Products Association, says production costs continue to rise to satisfy demand for legality verification but there is no price premium. *Photo: Y. Kamijo*

"Now we are considered a credible partner," said Mr de Munck. He outlined wide-ranging successful efforts within the trade in the Netherlands to address public perceptions of tropical timber, including the publishing of life-cycle analyses that show sustainably produced tropical timber has vastly superior environmental performance compared with concrete, steel and plastics.

Ngo Sy Hoai, Vice Secretary General of the Vietnam Timber and Forest Products Association, said the Viet Nam timber sector exports forest products worth about USD 8.0 billion to 120 countries annually.

Despite its seeming success, however, Viet Nam's timber sector faces major challenges. The absence of a national forest certification scheme, and a lack of cooperation amongst Vietnamese timber associations, was hindering development, said Mr Ngo.

"Moreover, production costs continue to rise to satisfy importers' demands for legality verification, but there is no compensation—there is a "market" premium but no price premium," he said.

Gleisson Omar Tagliari, Director of the Mato Grosso State Timber Production and Exportation Industries Center (CIPEM) in Brazil, said that CIPEM, a group of eight forest-based employer unions representing more than 600 companies, has an active trade-promotion function. The sector faces many challenges, he said, but, "first and foremost is the need for sector image change because the timber sector is still viewed as a villain. Only positive promotion can reverse this".

Cindy Squires, Executive Director of the International Wood Products Association, USA, said the purpose of her association is to build acceptance and demand in North America for globally sourced wood products from sustainably managed forests. She spoke about the multimodal approach taken by the IWPA to fulfill its purpose.

Trade Advisory Group laments decline in tropical timber market share

The tropical timber trade in consumer countries is struggling because of declining market share, in part due to competition from engineered products and other substitutes, according to a statement delivered by Barney Chan on behalf of the TAG in conjunction with the Annual Market Discussion.

TAG was established in 2000 to provide inputs to ITTO's policy and project work. It is open to anyone with an interest in the tropical timber trade, including representatives of tropical forest industries, timber exporters and importers, timber trade and industry consultants, and trade and industry associations.

According to the TAG statement, the potential exit of certain French timber companies from Central Africa (see story on page 24) "is a big 'red flag' which our Organization should sit up and take careful note of … We have to admit that business as usual is not good enough to save our industry and the forests."



Struggling trade: In delivering the TAG's statement at the 2018 ITTO Annual Market Discussion, Barney Chan says that business as usual will not be enough to save the tropical timber industry. *Photo: K. Sato/ITTO*

TAG proposed that ITTO undertake a study to determine why sustainable forest management has not been delivering on the promise of expanding markets for tropical timber with a view to developing a Council strategy to reverse the situation.

Presentations from the 2018 Annual Market Discussion are available at www.itto.int/ittc-54/presentations

Civil-society panel urges stronger role for women in forestry



Empowerment: Delphine Ahoussi, president of MALEBI, a women's group in Côte d'Ivoire, says that an ITTO project in communities living near the Ahua gazetted forest has enabled women to restore degraded forest land. Photo: K. Sato/ITTO

Women's role in the management of forests and other natural resources can no longer be forgotten or dismissed, said Rosalie Matondo, the Congo's Minister of Forest Economy, in a video presented at a panel discussion on the role of women in achieving ITTO's objectives that took place at the 54th Session of the International Tropical Timber Council.

"We must not forget that women represent more than half the population of our planet Earth," said Mme Matondo. "Today, more than ever, we must opt for an inclusive management of natural resources, taking into account all actors, in community forests, around logging concessions or in biodiversity conservation concessions."

"The principle of the development of these concessions and forest certification are guarantees for ... the taking into account of the rural communities and the autochthonous populations in the sharing of the profits related to the exploitation of the forest resources and, at this moment, women can no longer be forgotten or dismissed," she said.

Another member of the panel, Cécile Bibiane Njebet, President of the African Women's Network for Community Management of Forests (REFACOF), said women are at the bottom of a hierarchical pyramid in forestry—they are overrepresented as small-scale forest management operators but hugely underrepresented as supervisors, coordinators and owners.

"Women have very limited access and control over forest resources, land, technology, financial resources, training and information. They also lack awareness of their rights," said Ms Njebet. "This needs to change."

Among other things, Ms Njebet recommended that Council members encourage their government agencies to use ITTO's recently adopted Policy Guidelines on Gender Equality and Empowering Women to link forestry and gender equality with Sustainable Development Goal 5 on gender equality and with other United Nations mechanisms on women's empowerment.

Delphine Ahoussi, president of MALEBI, a women's group in Côte d'Ivoire, described how an ITTO project in communities living near the Ahua gazetted forest had enabled women to restore degraded forest land through agroforestry, thereby increasing forest cover, improving food security and livelihoods and reducing poverty among communities. The project has also changed perceptions of the role of women in managing forests, and for this reason the project recently won an award from the Government of Côte d'Ivoire. Council members watched a recently produced video of the project.



Transformative: Adi Estela Lazos Ruiz talks about a process in the Mexican municipality of Jamapa, Mexico, assisted by an ITTO project, to transform communities by increasing women's participation in the formal forest sector. Photo: K. Sato/ITTO

Adi Estela Lazos Ruiz talked about a process in the Mexican municipality of Jamapa, Mexico, assisted by an ITTO project, to increase women's participation in the formal forest sector.

"Knowing the importance of forest ecosystem services and of the active participation of the population to maintain them is essential, but it is not enough in the long run," she said.

"Women and men need empowerment to propel themselves to action. Women are usually the heart of the families, keeping the family together and educating the children, so working with women is a way to community transformation."



Stand up: Jennifer Conje from the US Forest Service spoke about the US Forest Service's initiative, "Stand Up For Each Other", designed to remind people of their responsibility to protect one another from bullying, harassment and retaliation. *Photo: Y. Kamijo*

Francois van der Ven described her pathway into forestry, first in Belgium and then Africa.

"When you're a woman in the timber trade, you have to know your business inside and out," she said. She is now head of the Industrial Forestry Trade Union in Gabon.

Finally, Jennifer Conje from the US Forest Service said gender issues in forestry were not specific to tropical developing countries but existed in developed countries as well. She described the current US Forest Service initiative, "Stand Up For Each Other", which is aimed at reminding everyone of their responsibility to protect one another from bullying, harassment and retaliation of any kind.

Ms Conje also shared personal experiences of the challenges and opportunities of being a female working in the forestry world.

The ITTO Secretariat's Sheam Satkuru, who moderated the panel discussion, said the presentations showed what could be achieved when women were empowered in their communities and in the forest sector.

"Gender equality is something that society has talked about for years but is still lacking in many areas," she said. "The international agenda is focusing on the empowerment of women and we as a society bear the responsibility to support it and make it happen."

There is a strong commitment in ITTO, said Ms Satkuru, to fully implement the Organization's Policy Guidelines on Gender Equality and Empowering Women in all its work, with the many benefits this will bring.

Statement by Civil Society Advisory Group

In a statement to the Council during the session, CSAG spokesperson Ms Jacqueline Gogwon-Gwet, from REFACOF in Cameroon, applauded the Council and ITTO Secretariat for the opportunity to convene the CSAG panel on the role of women in achieving ITTO objectives. CSAG urged the Council to place CSAG plenary events in the regular Council agenda.

"We can work together on the topics of interest to both parties to provide relevant advice and inputs to Council's deliberations," said Ms Gogwon-Gwet. CSAG also urged ITTO members to increase stakeholder engagement in policy development and implementation at the national level, she said.

The CSAG statement expressed disappointment that many ITTO member countries have not been paying their dues, and it addressed a range of other issues, including the need to disseminate and implement the Policy Guidelines on Gender Equality and Empowering Women.



Panel applause: GSAG spokesperson Jacqueline Gogwon-Gwet applauded the Council and the Secretariat for the opportunity to convene the CSAG panel on the role of women in achieving ITTO objectives. *Photo: K. Sato/ITTO*

Ms Gogwon-Gwet said CSAG "strongly encourages Council to ensure there are adequate resources available to ensure the ongoing participation of civil society and women in Council deliberations".

CSAG was encouraged by strong support in the Council for developing a new fundraising strategy, said Ms Gogwon-Gwet, and would like to be among the partners involved in piloting any fundraising initiative.

Presentations from the CSAG panel are available at www. itto.int/ittc-54/presentations. Videos from the CSAG panel are available at www.itto.int/ittc-54/women

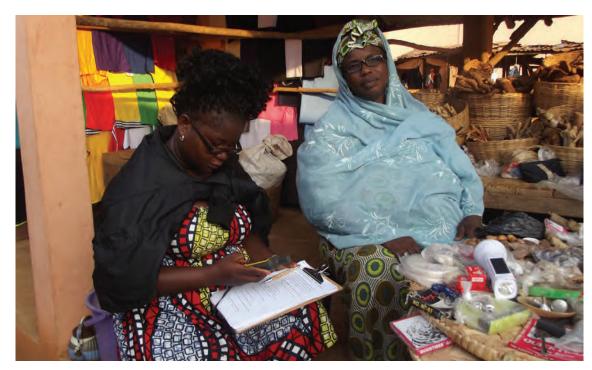
Fellowship report

An ITTO Fellow investigates the role and restoration of sacred forests in major urban centres in Benin

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On sale: ITTO Fellow Senan Ingride Legba (left) interviews a vendor as part of a survey to increase understanding of marketing channels for traditional medicines and to determine their availability in sacred forests and the various ways in which people use them. Photo: S.I. Legba

Benin's sacred forests are important sources of medicines and other materials for local people, but they have become degraded and are in need of restoration. Many of the ethnobotanically important species in sacred forests are rare, and little is known of their cultivation. In-depth field surveys and the active participation of stakeholders are essential for the sustainable production, outplanting (in sacred forests), growth, harvesting and marketing of endangered medicinal species.

Objective, methodology and areas of intervention

The overall objective of my doctoral study, financed by the ITTO-Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Programme, was to work alongside local people to improve the protection of plant diversity on a scientific basis and to increase the social, political and cultural recognition of the benefits of protecting medicinal plants in sacred forests.

The main aim was to produce seedlings of seven rare tree species (Adansonia digitata, Afzelia africana, Dialium guineense, Diospyros mespiliformis, Khaya senegalensis, Kigelia africana and Tamarindus indica). This was done at an experimental site of the University of Abomey-Calavi on an area of 1000 m². This site is located in Benin's Guinean-Congolese zone, in the municipality of Abomey-Calavi, Atlantique-Littoral department, and transported by vehicle to the 29 sacred forests. Germination tests were performed on the seeds of all these species to optimize production and improve the scientific approach. In addition, we conducted ethnobotanical studies of five other rare medicinal species (Caesalpinia bonduc, Gardenia ternifolia, Sarcocephalus latifolius, Xylopia aethiopica and Zanthoxylum zanthoxyloïdes) with the aim of gaining a better

understanding of their marketing channels and determining their availability and the various ways in which people use them.

Prior work (Akouèhou et al. 2016; Quiroz et al. 2014; Adomou et al. 2012; Fall 2007; Hahn-Hadjali & Thiombiano 2000) identified the twelve above-listed tree species as rare. A preliminary investigation identified 29 degraded sacred forests as well as locations for the collection or purchase of seeds and markets selling medicinal plants in the major

The study team collected and graded seeds, treated them at the experimental site, and assessed the quality of seeds and germination times for each of the seven rare trees. Germination and height growth, as well as endogenous knowledge of these plants, were evaluated. We used the results to obtain information on the diversity of plant species, the various ways in which they are used, the associated sociocultural characteristics, their value chains and their level of vulnerability. Finally, germination tests and the variety of substrates used allowed us to achieve better germination rates and thus undertake enrichment planting of degraded areas in the 29 sacred forests.

Ethnobotanical data were collected from a total of 1368 people involved in medicinal-plant value chains in the following major urban centres (in which the 29 sacred forests and markets are located): Abomey-Calavi, Cotonou, Ouidah and Zè in the Atlantique-Littoral department; Djakotomey, Avozé, Comè, Aplahoué and Lokossa in the Mono-Couffo department; Sèmè, Adjarra, Adja-ouèrè, Kétou and Pobè in the Ouémé-Plateau department; Bohicon, Covè, Zangnando, Glazoué and Savè in the Zou-Collines department; Tchaorou, Parakou, N'dali, Kandi and Malanville in the Borgou-Alibori department; and Djougou, Natitingou, Kouandé, Bassila and Tanguiéta in the Atatcora-Donga department. The "gross

margin" formula was used to gain a better understanding of stakeholder incomes. The mean germination rate (MGR) was calculated for each species and substrate. The following parameters were used to assess the sociocultural importance of the medicinal species according to sociocultural group: ethnobotanical usage value; index of cultural importance; and relative frequency of citation. Data were processed using R64 3.4.4 software.

Results

Germination tests on seeds of seven endangered medicinal tree species. The germination tests showed that most species had satisfactory germination rates (MGR > 50%). The various substrates used had a significant influence on the germination rates and height growth of the seven species, with all species exhibiting superior germination in the compost substrate. The various pre-sowing treatments applied to the seeds increased germination rates (margin of error = 5%) for all species except Adansonia digitata and Khaya senegalensis (for which the treatment had no effect).

Enrichment planting in sacred forests. The 29 sacred forests were subjected to enrichment planting with the species produced at the experimental site. A total of 2930 seedlings was planted in accordance with the following criteria: area and level of degradation of forests; climatic factors; and preferred growing conditions, by tree species.

Marketing channels and traditional knowledge of five rare medicinal species. The ethnobotanical survey showed the wide diversity of plant species used in traditional medicine and enabled the characterization of medicinalplant subsectors and their impacts on people's standard of living. In the Atlantique-Littoral department, for example, traders earn the highest average income; in the Borgou-Alibori department, earnings are very high for carriers. The income of processors is dependent on the species involved—with Xylopia aetiopica the most lucrative. The highest average marketing gross margins were obtained for X. aetiopica and Zanthoxylum zanthoxyloides. The greater knowledge obtained of the trade of rare medicinal plants and associated traditional knowledge will ensure better conservation of the various endangered medicinal species.

Ethnobotanical knowledge of medicinal plants. The 1368 survey respondents identified more than 206 species from 66 families. The most frequently mentioned family was Fabaceae (15.4% of respondents). An analysis of the distribution of species per department revealed that the Atlantique-Littoral department had the lowest species diversity and the Borgou-Alibori department had the highest. Of the vegetation lifeforms, microphanerophytes (i.e. shrubs or trees 2-8 m in height) were predominant (mentioned by 22.8% of respondents), followed by therophytes (i.e. herbs that survive unfavourable seasons as seeds) (mentioned by 11.5% of respondents). Species from the Sudanese, Guinean-Congolese, Guinean, Sudano-Zambezian and Sudano-Guinean phytogeographical types were most represented (58.7%), and species with continent-wide distributions were least represented (8.14%).

A factorial analysis of rare medicinal plants, their availability, the parts used and the various stakeholders showed that the roots and bark of rare medicinal plants were overexploited. According to carriers, the roots of Zanthoxylum zanthoxyloides, Sarcocephalus latifolius, Ceasalpinia bonduc and Gardenia ternifolia are collected only in ideal growing conditions. On the other hand, *Xylopia aetiopica* is at risk because fruits, roots, bark and leaves are all used as medicinal products. Income from the sale of medicinal plants was dependent on access to medicinal plants in the forest. A relationship was observed between income and frequency of supply, together with education level.

Stakeholders in the value chain of endangered medicinal plants are increasingly aware of the potential for transferring traditional knowledge via the written method.

Further study

More research is required to fully understand the main factors influencing the survival chances and sustainability of rare medicinal plants and thereby to enable effective domestication and conservation programmes. Such research would also help increase awareness of the need and capacity to protect endangered tree species and conserve sacred forests.

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Market trends

The certified-forest business model in Africa is under stress due to structural change and a lack of remuneration

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Stalled? The business model based on the certification of natural forest has lost ground in Africa over the last decade. Photo: T. Yanuariadi/ITTO

A major structural change is underway in the African timber industry as operations are reoriented away from the European market towards Asia. This change is driven by factors both on the supply side, particularly the declining availability of timber species of interest to the European market, and on the demand side, as consumption weakens in Europe at a time when demand in Asia is rising rapidly.

Although this shift has been going on now for more than a decade, the full implications were laid bare in March 2018 with the announcement that the Rougier holding company was to be placed under court-ordered receivership proceedings in France with a view to rolling out extensive restructuring.

This event is encouraging a reassessment of the future role of European forest operations in Africa. Also under review is the continuing validity of a business model heavily dependent on the supposed profits from the sale of third-party certified tropical wood products and other environmental services in environmentally aware markets in richer industrialized nations

These issues are explored in two recent trade articles, one by Alain Karsenty (Karsenty 2018), Research Director at the French Agricultural Research Centre for International Development (Centre de coopération internationale en recherche agronomique pour le développement—CIRAD), and the other by Emmanuel Groutel (Groutel 2018), an independent expert on the African timber industry affiliated with Caen University in France. These articles refer respectively to a "crisis" and the "brutal weakening" of European-owned forest and timber operations in Africa in recent years.

According to Groutel, recent events in Africa raise profound questions about "theories of change of all policies and projects currently underway that rely on the link between responsible companies and the European and American market".

According to Karsenty, the bankruptcy filing of Rougier has come as a particular shock to Europe-based tropical forestry professionals because the company, which was founded in Niort in 1923, is "one of the oldest and largest timber companies in Africa". It has been present in Cameroon, the Congo, Gabon and, since 2015, the Central African Republic; it formerly owned more than 2.3 million hectares and employed 3000 people, mainly in Africa. As part of its ongoing restructuring process, Rougier has disengaged from all African operations except those in Gabon. In a transaction concluded on 16 July 2018, ownership of four Rougier subsidiaries— SFID (Société Forestière et Industrielle de la Doumé), Cambois and Sud Participation in Cameroon and RSM (Rougier Sangha-Mbaéré) in the Central African Republic—was transferred to Sodinaf (Société de distribution nouvelle d'Afrique), a Cameroonian company.

Rougier's financial difficulties part of wider problem

Karsenty sees the financial difficulties of Rougier as part of a wider pattern of failure by European operators in the African tropical wood sector. In 2017, the Dutch-owned Wijma Cameroon Group sold four of its five forest concessions in Cameroon to a competing company (Vicwood SA, headquartered in Hong Kong). The Italian company Cora Wood SA, a well-known plywood manufacturer operating in Gabon, had to sell one of its concessions there to a Chinese company to pay its debts.

Karsenty says that, "rumours are rife about possible future disposals of other European companies in Gabon or the Congo". He further observes that the reasons given by the Rougier management when filing for bankruptcy this year are common to the entire tropical timber export chain in Africa. They include serious problems and delays with

shipping out of Douala port in Cameroon and the delayed payment of value-added tax refunds by African governments, partly linked to low oil prices.

Although these problems affect all operators in the region, they have fallen particularly heavily on European-owned companies because of the weak and declining consumption of tropical timber in Europe; the declining availability of African wood species that satisfy the narrow preferences of European buyers; and the particularly low profitability of certified sustainable timber operations, which receive little or no market premium but incur higher operating costs.

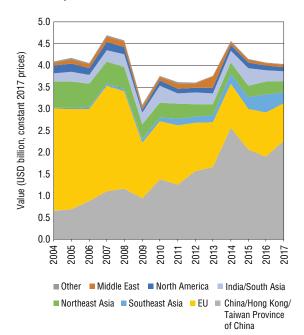
Reasons for declining European tropical wood consumption

The reasons for the decline in the consumption of tropical timber in Europe are now well understood, having been reported widely by ITTO and others. They are also well articulated by participants at recent trade consultations in the United Kingdom and France hosted by the Forest Law Enforcement, Governance and Trade Independent Market Monitor (IMM), an ongoing ITTO project funded by the European Commission.

The logistical problems of supplying consistent commercial timber volumes from Africa into the European market are compounded by strong trends in the European Union (EU) to favour engineered timber products. These require the just-in-time delivery of wood in standardized grades and dimensions—which tropical suppliers are not well placed to provide.

New thermally and chemically modified softwood and temperate hardwoods, and wood–plastic composites, are replacing tropical woods in many exterior applications.

Figure 1: Value of timber exports from Africa, by destination, 2004–2017



Source: ITTO IMM analysis of COMTRADE & COMEXT.

African species used in interior applications—like wawa, ayous and movingui—are being replaced by beech, rubberwood, American tulipwood, medium-density fibreboard and a whole host of non-wood materials.

Meanwhile, demand for tropical wood continues to suffer from the long-term effects of negative media campaigns linked to deforestation, which the certification movement has been unable to fully address.

As demand for African timber has weakened in Europe it has strengthened in Asia. Trade data analyzed by the IMM show that China's share of total exports of African timber more than doubled between 2008 and 2017, from 25% to 57%. The share of the EU in African exports fell from 49% to 21% over the same period (Figure 1).

European African operations transferred to Asian companies

According to Karsenty, "European dealers, formerly essential in the African timber industry, are gradually giving up their assets to Asian investors. Malaysian operators have been present in Central Africa since the mid-1990s. Chinese companies have entered the industry since the 2000s and, more recently, Indian investors, including the multinational Olam, have made their mark in Gabon and the Congo".

The process of transferring European-owned industry assets in Africa to Asian firms has been going on for some time, but there is a feeling that the withdrawal of Rougier, a company with very long and deep links to Africa, could mark a turning point.

The share of African timber exports to Europe increased slightly in 2015 and 2016, due to both a slight uptick in European consumption and a big fall in exports to China (due mainly to the bursting of the speculative bubble in rosewood). Europe's share of African exports slumped again in 2017 and 2018.

The trade dispute between China and the United States of America (US) might strengthen these trends. On 2 August 2018, the Trump Administration announced a new round of tariffs on USD 200 billion of Chinese goods, due to be implemented from 1 October. In retaliation, the Chinese government announced that, if the US went ahead, it would impose a wide-ranging package of sanctions on imports of US products, including a 25% tariff on American hardwood.

Such measures will probably increase China's demand for hardwood products from other regions, including Africa. Around 50% of all American hardwood exports head to China: imposition of the Chinese tariff is likely to encourage US hardwood exporters to focus more heavily on the European market, further increasing competition for tropical timber.

Declining availability of African timbers of most interest to **European buyers**

In addition to these global issues, forestry trends in Africa are reducing the availability of timber species of most interest to Europe. Karsenty notes that European operators in Africa have focused traditionally on a limited range of profitable species: okoumé in Gabon; ayous, sapelli and azobé in Cameroon; sapelli in northern Congo and okoumé in southern Congo; sapelli in the Central African Republic; and a few precious species such as wenge and afrormosia in the Democratic Republic of the Congo.

Europe's traditional focus on this handful of species means that the species have become commercially depleted (although not necessarily endangered). According to Karsenty, "the problem is economic: the volumes remaining at the second rotation (legally, 25 to 30 years between two rotations) are generally insufficient to support industrial utilization and to satisfy market demand".

Karsenty notes that this problem is well illustrated by Rougier, which purchased a concession in the Central African Republic just over the border from its main factory in Cameroon because of the decline in the availability of sapelli and ayous in eastern Cameroon (a region that industry and artisanal operators have exploited for several decades).

Similarly, observes Karsenty, Wijma's abandonment of several concessions in Cameroon is linked to the sharp drop in the volume of azobé at the end of the first rotation. Although other species could be harvested in these forests in the second and subsequent rotations, they are either insufficiently abundant to replace traditional species or their selling price is too low to cover the costs of harvesting, transport and processing.

Risk of Africa's overdependence on commodities

Karsenty highlights the dangers of African operators remaining too dependent on exports of commodities such as logs, standard-sized lumber and rotary-cut veneers rather than further-processed products. He suggests that, "to sell commodities is to be condemned to remain a 'price taker', dependent on international timber prices and the changing preferences of international buyers".

Overseas timber buyers will always tend to focus on the limited range of species and grades that meet their own production standards and agendas for market development. They often have little or no long-term stake in any specific supply country or region and will turn to alternatives—and play different suppliers off one another—when it suits them.

African suppliers of timber commodities face intense competition from Asian woods and increasingly from modified temperate hardwoods and plantation timbers and even non-wood products when prices of African woods are perceived to be too high.

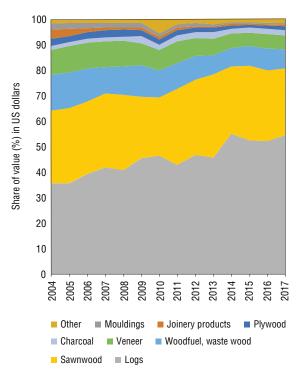
Some African countries have now placed tight restrictions on log exports, particularly of the most commercially valuable species, to boost domestic wood-processing. IMM analysis, however, shows that the rise in African exports to Asia has been accompanied by an overall shift away from exports of value-added products at a region-wide level.

According to IMM, the share of logs in total African timber exports increased from 41% in 2008 to 55% in 2017. In the same period, the share of higher-value products such as plywood, joinery products and mouldings—which has never been high—fell from 5.4% to 2.7% (Figure 2).



Viable ply? Workers stack plywood in a mill in Côte d'Ivoire. African suppliers of timber commodities face intense competition from Asian woods and increasingly from modified temperate hardwoods and plantation timbers. Photo: R. Carrillo/ITTO

Figure 2: Share of the total value of timber exports from Africa, by product, 2004–2017



Source: ITTO IMM analysis of COMTRADE & COMEXT.

Asian operators better placed in Africa

Karsenty observes that Asian operators in Africa have been better able to overcome recent market challenges than their European counterparts because they have significant capital and can profitably use wood of lower quality than that demanded by European buyers. Moreover, Asian operators have been successful in marketing a wider range of species.

Asian companies are under much less market pressure to demonstrate the legal and sustainable origin of their products in their domestic markets (although this is beginning to change). According to Karsenty, "apart from the Olam company, which bought a large concession already certified in north Congo in 2011 from a Danish company, no Asianowned operator has yet sought to obtain the FSC label for its African concessions".

The business model pioneered by European operators for their African concessions seems to be unravelling. This was built on the foundation of forest management plans developed in the 1990s and extended by a period of rapid uptake of Forest Stewardship Council (FSC) certification in 2005–2010.

The success of this model depends heavily on the market rewards to be derived from a clear commitment to sustainable forestry and social welfare. These rewards should derive from the combination of greater market access and prices for timber products, the anticipated development of new markets for environmental services, notably carbon capture, and the increased confidence of shareholders and other financial backers.

As Karsenty notes, "while certified woods are sold at a higher price in some sensitive markets, a good proportion of labelled timber is sold at current prices in the southern and eastern markets of Europe, the Middle East and Asia. And, in this case, investment in certification is not profitable".

Presentations at an FSC dialogue held in conjunction with the Gabon Wood Show in June 2018 highlighted the continuing failure of this business model to deliver adequate financial returns. It was noted that the total area of FSC-certified forest in the Congo region had declined in the last two years from 5.5 million hectares to 4.85 million hectares.

The representative of one European-owned FSC-certified operation in Africa said, "We have reached breakeven point after several years of negative performance—but sustainable tropical forest management models are still economically not attractive enough to motivate traditional investors to finance new developments".

This company representative said that although efforts are being made to monetize the carbon credits of certified forest operations, the returns on this and other environmental services are very low, and timber sales still account for 90% of revenue. Moreover, most of these sales derive from investments in plantation timber, which, from a financial perspective (although not environmentally), perform better than investments in FSC-certified natural forest.

Too early to dismiss "certified sustainable" business model

The business model based on the certification of natural forest has lost ground in Africa over the last decade, and the problems at Rougier have turned a spotlight on its viability in the current market environment. Nevertheless, the model's long-term potential should not be dismissed out of hand.

To some extent, the recent failures of European operations in Africa are due to economic conditions and policy settings that may yet be reversed. The timing of the rapid uptake of FSC certification—occurring as the global financial crisis began to bite, which had a much larger effect on markets in Europe and the US than in Asia—was particularly unfortunate for European operators in Africa.

The global financial crisis also distracted policy attention from efforts to develop markets for environmental services and contributed to a general failure on the part of industrialized nations to back up their environmental commitments with funds.

More recently, there have been signs of recovery in total wood consumption in the EU market, buoyed by rising interest among architects and designers in wood's environmental credentials.

All imports into the EU are now subject to the EU Timber Regulation (EUTR). Although this law does not give wood certified by the FSC or the Programme for the Endorsement of Certification (PEFC) a "green lane" through due-diligence requirements, it does state that certification is an appropriate tool for risk mitigation.



The wheel may turn: There are signs of recovery in total wood consumption in the EU market, and certified tropical timber from Africa may yet find an edge in the market. Photo: T. Yanuariadi/ITTO

Both the FSC and the PEFC have taken steps to ensure that their requirements for legal conformance and chain-ofcustody standards are fully aligned with the EUTR. The consistent implementation of the EUTR, and equivalent laws in other consumer countries, should eventually give certified products an edge over uncertified products in those markets.

Progress is slow, but prospects for environmental services are also improving. Capacity for REDD+ is being built up, boosted by the strong endorsement of this approach in the 2015 Paris Agreement on climate change.

Global carbon markets are also set to expand, notably following China's announcement in December last year that it is launching the world's largest cap-and-trade carbon market. This market, expected to be operating by 2020, is likely to allow the use of forest carbon offsets, although the rules for this are still unclear. The signing of the Carbon Offsetting and Reduction Scheme for International Aviation in October 2016 promises a significant expansion of demand for carbon offsets in the aviation industry.

Bolstering market awareness of benefits

African operators and certification advocates are taking concerted action to bolster market awareness of the benefits of certification. FSC representatives at the Gabon Wood Show emphasized the work they are doing to raise consumer awareness of the role of certification in promoting progress in line with the UN Sustainable Development Goals.

The message being sent out is that "certified tropical timber products come preloaded with rural development and environmental conservation values". The FSC is confident that this message is gaining traction, benefiting as it does from links to the FSC brand, which has gained widespread consumer recognition in western markets.

Other agencies are now working to promote this message. In 2017, with wide-ranging support from major players in the tropical wood industry, the International Tropical Timber Technical Association (ATIBT) launched a joint marketing initiative to develop the "Fair & Precious" brand. Companies that carry this brand are required to sign up to ten environmental and social values and to demonstrate progress through commitment to FSC or PEFC certification.

With support from the Dutch government, the European Sustainable Tropical Timber Coalition (STTC) is also raising awareness of the economic, social and environmental benefits of certified tropical forest operations. The STTC is working to expand the European market for certified tropical forest products by developing pan-industry partnerships, promoting lesser-known tropical species and providing technical advice.

This work is beginning to show results, as illustrated by a presentation by a representative of the French National Railway Company (Société nationale des chemins de fer français—SNCF) at the Racewood conference held alongside the Gabon Wood Show in June 2018. The French national rail network needs more than 12 000 m³ of wood per year. Tropical timbers have not been used until recently because

of preconceived ideas about delayed deliveries and the risk of illegal and unsustainable harvesting. Partly motivated by increasing concern about the environmental and health impacts of creosote-coated softwood alternatives, however, SNCF has reconsidered its use of tropical timber. It has developed an action plan to expand the application of certified tropical hardwoods in collaboration with a wide range of actors—including ATIBT, the French timber association LCB, the FSC, the PEFC and the World Wide Fund for Nature, together with large distributors such as Alstom, Bombadier, Nestlé and Saint-Gobain.

SNCF has been particularly encouraged by a whole-life costing exercise of azobé. This assessment showed that, due to its exceptional technical properties, this tropical timber performs very well against alternatives such as creosote-treated softwood and concrete when all costs associated with supply, installation, maintenance, disposal and replacement are taken into account.

Lower-cost certification options

Initiatives on the demand side are essential to the long-term future of the certified-sustainable tropical timber business model. The recent experience of European operators in Africa shows, however, that it is also important to ensure that the cost of certification does not create an insurmountable barrier to profitability.

To a significant extent, the certification challenges faced by operators in Africa are symptomatic of the reliance on only one international system—that of the FSC—and the slow evolution of regional certification capacity.

Speaking at the Racewood conference in June, Jean-Paul Grandjean of PPEFC II¹ described the many measures being taken to support forest operators to maintain their certificates through training, the building of certification institutions and networks, and scientific research.

Grandjean also observed, however, that a specific barrier to FSC certification in Africa was raised in 2014 with the passage of Motion 45 of the FSC General Assembly on "intact forest landscapes" (IFL).

This motion greatly tightened FSC requirements for forests identified as an IFL. For example, it means that low-impact/small-scale forest management and non-timber forest products must be prioritized in unallocated IFL areas, first

access must be provided to local communities, and alternative models for forest management/conservation (e.g. for environmental services) must be developed within IFLs.

Although the FSC requirements for IFL may appear desirable in principle, their implementation is extremely challenging in the business environment prevailing in the Congo Basin, in which environmental services provide only limited returns, the availability of most commercially valuable species is declining, international demand for certified wood is very patchy and highly inconsistent, and institutional capacity to certify large numbers of community forests is lacking.

In this light, the emergence of a new certification framework in Africa that is directly responsive to regional conditions and prioritizes regional institutional capacity is a positive development. Early in 2018, PAFC Gabon—a certification system endorsed by the PEFC in 2014 after five years of development—awarded its first certificate, covering an area of 600 000 hectares. The PAFC Gabon standards are derived from ITTO principles and adapted specifically to the national context.

A similar PAFC process is underway in the Congo, supported by the Ministry of Forest Economy with financial assistance from the African Development Bank. A protocol agreement was signed between PAFC Congo and the PEFC in 2014, and PAFC Congo was formally constituted as an independent agency in 2017.

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¹ PPEFC II is an initiative of the Commission of Central African Forests to encourage the development of certification capacity in the Congo Basin.

Topical and tropical

Compiled by Ken Sato

Certified timber grows Belgian market share

A report by Dries Van der Heyden and five co-authors shows a significant increase in certified timber's share of the Belgian primary wood market between 2012 and 2016. The report, Certified Timber on the Belgian Market 2016, which was produced by the non-profit organization BOS+, surveyed 43% of the Belgian primary wood market and found that 59.5% of this was certified, up from 40.5% in 2012. Overall, 71.6% of sawn softwood, 17.8% of sawn temperate hardwood, 25.8% of sawn tropical hardwood and 53.8% of sheet materials were certified. The authors considered that an obstacle to further increases in the use of certified timber is the "skeptical attitude about certified timber among importers and producers ... [who] maintain that there is too little demand from customers and criticize the extra administrative costs certification involved".

Source: www.europeansttc.com/certified-timber-growsbelgian-market-share The report (in Dutch) is available at https://probos.nl/images/pdf/rapporten/Rap2018_ Gecertificeerd_hout_op_de_Belgische_markt_in_2016.pdf

European Union, Guyana sign voluntary partnership agreement

The European Union (EU) and Guyana have concluded negotiations on a voluntary partnership agreement (VPA) aimed at improving forest governance, addressing illegal logging and promoting trade in verified legal timber products between Guyana and the EU. VPAs are voluntary for timber-exporting countries, although they are legally binding on both sides once they have entered into force. When fully implemented, the VPA between the EU and Guyana will give EU-based timber buyers assurance that timber products from Guyana are legal and prevent trade in illegally harvested timber, thereby improving market access for law-abiding businesses. In addition, Guyana expects the VPA to enable it to modernize its forest sector, create jobs, promote sustainable development and protect the rights of indigenous peoples. The EU now has VPAs with 15 countries, of which one, Indonesia, is exporting timber to the EU licensed under the terms of the VPA through the Indonesia Timber Legality Verification System (SVLK—see next story).

Source: www.euflegt.efi.int/es/guyana-news/-/asset_ publisher/FWJBfN3Zu1f6/content/eu-and-guyana-initialvoluntary-partnership-agreement-to-combat-illegal-loggingand-promote-trade-in-legal-timber

Indonesian wood exports to rise in 2019, says industry association

The Chair of the Association of Indonesian Forest Concessionaires, Indroyono Soesilo, has forecast an 8% increase in Indonesian forest product exports in 2019, which would lift forest-sector export earnings to around USD 13 billion. Behind this positive assessment is the introduction of the Indonesia Timber Exchange, an online marketing and trading system for forest products, all of which are certified under the SVLK.

Source: Tropical Timber Market Report, 22(22). Available at www.itto.int/files/user/mis/MIS_16-30_Nov2018.pdf

Deforestation increases in the Amazon

Deforestation in the Brazilian Amazon has hit its highest rate in a decade, according to official data, with about 790 000 hectares of forest reported to have been cleared between August 2017 and July 2018. Brazil's Environment Minister, Edson Duarte, blamed illegal logging for the increase.

Source: www.bbc.com/news/world-latin-america-46327634

Space laser to map Earth's forests in three dimensions

Scientists have gained a new tool for measuring forest biomass with the launch of NASA's Global Ecosystem Dynamics Investigation (GEDI) on a SpaceX rocket, according to Science Magazine. The instrument, the size of a large refrigerator, will be attached to the International Space Station, where it will gather data on the height and three-dimensional structure of tropical and temperate forests. Among other things, the data will help scientists understand the carbon flux in forests. GEDI will use a technology called light detection and ranging (lidar), which can penetrate dense forests and thereby provide information on forests beneath the tree canopy. The data could help countries demonstrate the role of their forests in sequestering carbon and thereby in meeting commitments under the Paris Agreement on climate change and obtaining remuneration as part of REDD+.

Source: www.sciencemag.org/news/2018/12/space-laser-willmap-earth-s-forests-3d-spotting-habitat-risk-specie

ITTO website gets new look

ITTO has relaunched its website at www.itto.int with a fresh look and more intuitive navigation aimed at making it easier for users to find the information they need. The revamped website features:

- · a carousel presenting the latest stories on ITTO's work;
- front-page access to ITTO's flagship publications—including the TFU and the Tropical Timber Market Report;
- a new "resources" section, giving easy access to ITTO quidelines and other policy documents, as well as technical reports, publicity materials, videos and other products;
- a photo gallery of ITTO's field work available for public download and use. The gallery has a multi-parameter search function to help users find photos relevant to their needs;
- links to ITTO's social media accounts on Facebook, Instagram, Twitter and YouTube: and
- · buttons for subscribing to the TFU, the Tropical Timber Market Report and Tropical Forest News.

The website also provides:

- · links to general news on the tropical forest sector;
- information on ITTO's calls for project proposals, the ITTO Fellowship Programme and forest-related events organized by ITTO, partners and other actors;
- front-page access to ITTO's project/activity search function, which, among other things, enables the public download of project outputs; and
- · quick links to various areas of the website to provide further insights into the Organization's work.

The website is responsive, meaning it automatically resizes to enable a seamless experience on smartphones and tables.

Recent editions

Compiled by Ken Sato



White, G. 2018. A tabling of views: scoping study for assessing the impacts of timber legality on the European Union's wood-furniture sector and the associated tropical timber trade. ITTO Technical Series No. 47. ITTO, Yokohama, Japan.

Available at www.itto.int/ technical_report ISBN 978-4-86507-048-4

The Independent Market Monitoring mechanism was established under

an ITTO project to support the implementation of voluntary partnership agreements (VPAs) between the European Union (EU) and timber-supplying countries and to analyze their market impacts. VPAs are a key element of the EU's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, which defines the EU's policy for promoting legal logging and the trade of legal timber.

This report, which is based on a comprehensive survey of the private sector conducted by a network of experienced European market analysts, constitutes an excellent source of information for stakeholders interested in EU furniture market trends. It describes and explains the current market conditions and distribution channels for wood furniture exported by VPA countries to the EU; identifies important furniture-trading companies, market influencers and fashion trends; examines the competitiveness of furniture from VPA countries compared with other sources; and provides a preliminary assessment of the current and potential role of FLEGT licensing in improving market access in the EU for wood furniture from VPA countries.



Taylor, R. & Streck, C. 2018. Ending tropical deforestation: the elusive impact of the deforestation-free supply chain movement. Working paper. World Resources Institute, Washington, DC.

Available at https://wriorg.s3. amazonaws.com/s3fs-public/ ending-tropical-deforestationsupply-chain-movement.pdf Hundreds of companies with exposure to deforestation driven

by palm oil, beef, soy and wood production have committed to addressing deforestation in the context of the Consumer Goods Forum's Zero Net Deforestation Commitment, the Tropical Forest Alliance 2020 and the New York Declaration on Forests. Many of these commitments stipulate 2020 as a target year for eliminating deforestation from supply chains of agricultural commodities. As the 2020 deadline approaches, it is timely to review the status of forest-related supply-chain commitments and to identify implementation barriers and systemic challenges to the effectiveness of company action. This working paper summarizes the progress made, identifies challenges and evidence gaps, and recommends additional actions for reducing commodity-driven deforestation.



ITTO. 2018. ITTO annual report 2017. Yokohama, Japan.

Available at www.itto.int/annual_report

This publication summarizes ITTO's work in the 2017 calendar year, addressing, among other things, the 53rd Session of the International Tropical Timber Council; the field results of projects completed in 2017 and activities conducted under the thematic programmes; work related to economics, statistics

and markets; the ITTO Fellowship Programme; engagement with partner organizations; outreach; and financial aspects.



Global Landscapes Forum & CIFOR. 2018. Communities restoring landscapes: sources of resilience and success. Center for International Forestry Research (CIFOR), Bogor, Indonesia.

Available at www. globallandscapesforum.org/ publication/communitiesrestoring-landscapes-stories -of-resilience-and-success

This collection of 12 stories from women and men in nine countries

in different parts of Africa shines a light on the efforts of communities—some decades-long—to restore degraded forests and landscapes.

The stories illustrate the opportunities that communities create as they solve their own problems and the many entry points for supporting and accelerating community efforts. The stories show that leadership, social capital, cooperation, clear property rights and tenure, and supportive governance are important for successful community-based restoration. From the perspective of communities, "success" is not only about the number of trees planted: it is also about the ability to secure and enhance livelihoods, strengthen existing community relationships and build new ones with other actors, develop a conservation ethic among younger generations and, in some cases, expand the rights of excluded individuals and groups. This collection is about amplifying the voices of local people in global policy debates.



Tola, E. 2018. Driving scientific research into journalistic reporting on forests, environment and climate change: handbook for scientists. Helsinki, European Forest Institute.

Available at www.efi.int/sites/ default/files/files/publicationbank/2018/lookout_ station_2018_tola_handbook.pdf The aim of this handbook is to strengthen the connection between scientists and journalists with a view

to improving communication and media outreach on forests, the environment and climate change, including on basic science, innovative solutions and opportunities for action. The handbook discusses the motivations, approaches, frameworks and ingredients needed to find new narratives, develop a different approach to the media and understand the information needs and expectations of the public. It includes practical tools and tips for boosting communication work.

Meetings

ITTO meetings

2-7 December 2019

55th Session of the International Tropical Timber Council and Sessions of the Associated Committees

Lomé, Togo

Contact: www.itto.int/events/event/id=5400

The International Tropical Timber Council is ITTO's governing body. It meets once a year to discuss issues related to the legal trade of tropical timber and the sustainable management of tropical forests. Council sessions are open to official delegates and accredited observers.

Other meetings

13 February 2019 Wood and Wellness Conference

London, UK Contact: www.ttjonline.com/event/ wood-and-wellness

13-14 February 2019 Lignofuels 2019

Oslo, Norway Contact: www.wplgroup.com/aci/ event/lignofuels-2019

20–21 February 2019 4th Biomass Trade Summit Europe 2019

Rotterdam, the Netherlands Contact: rbaryah@acieu.co.uk

12-14 March 2019 Dubai Wood Show 2019

Dubai, United Arab Emirates Contact: www.dubaiwoodshow.com

18–19 March 2019 3rd International Conference on Ecology, Ecosystem and Conservation Biology

Chicago, USA Contact: https:// ecologyecosystems. conferenceseries.com

19 March 2019 Colloquium on Forest

Plantation: Recent Advances in R&D

Paris, France Contact: www6.inra.fr/renfor/ Journees-d-echangesscientifiques-et-techniques/ Colloque-plantation-2019

1–5 April 2019 Sixth Mediterranean Forest Week

Brummana, Lebanon Contact: https://vi-med. forestweek.org

10 April 2019

Forests 2020

Edinburgh, UK Contact: https://ecometrica.com/ space/forests2020

24–15 April 2019 6th World Congress on Climate Change and Global Warming

Vancouver, Canada Contact: https://climate. conferenceseries.com

6-10 May 2019

14th Session of the United Nations Forum on Forests

New York, USA Contact: www.un.org/esa/forests

8-11 May 2019

World Conference on Forests for Public Health

Athens, Greece Contact: https://fph2019.org

8-11 May 2019

8th World Climate Congress

Phuket, Thailand Contact: https://climatecongress. conferenceseries.com

15-19 May 2019

Biodiversity Conservation and Ecosystem Management

Singapore Contact: https://biodiversity. conferenceseries.com/ organizing-committee.php

19-23 May 2019

A Century of National Forest Inventories: Informing Past, Present and Future Decisions

Oslo, Norway Contact: https://nibio. pameldingssystem.no/nfi100years

22–24 May 2019 European Forum on Urban Forestry

Cologne, Germany Contact: https://efuf2019. wordpress.com

23 May-3 June 2019

18th Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora

Colombo, Sri Lanka Contact: www.cites.org

17-21 June 2019

Asia-Pacific Forestry Week 2019

Incheon, Republic of Korea
Contact: AP-Forestry-Week@fao. org

24-26 June 2019

Gabon Wood Show 2019

Libreville, Gabon Contact: www.gabonwoodshow.com

24-28 June 2019

Protecting the Forest Resource: Risk Assessment and Management Using Innovative Tools

Waterford, Ireland Contact: www.efi.int/events/ protecting-forest-resource-riskassessment-and-managementusing-innovativetools-2019-06-24

1-3 August 2019

Forestrise 2019: Wood Industries International Exhibition

Nagano, Japan Contact: www.forestrise.jp

9-11 September 2019 6th World Conference on Climate Change

Berlin, Germany Contact: https://climatechange. insightconferences.com

24-27 September 2019

21st International Nondestructive Testing and Evaluation of Wood Symposium

Freiburg, Germany Contact: www.iufro.org/science/ divisions/division-5/50000/ 50100/50109/activities

29 September–5 October 2019 XXV IUFRO World Congress

Curitiba, Brazil Contact: www.iufro2019.com

28 October–1 November 2019 7th International

Wildland Fire Conference (WILDFIRE 2019)

Campo Grande, Brazil Contact: www.ibama.gov.br/ wildfire2019-eng

4–5 November 2019 9th International Conference on Environment and Climate Change

Johannesburg, South Africa Contact: https:// environmentclimate. conferenceseries.com

11-19 June 2020 IUCN World Conservation Congress

Marseille, France Contact: Goska.Bonnaveira@iucn. ora

