The impacts of criteria and indicators

ITTO's long-running work to develop and implement C&I has helped strengthen tropical forest management

by Stephanie J. Caswell

ITTO consultant
(caswellsj@aol.com)

Reduced impact: ITTO's C&I help to guide harvesting and forest management operations in a concession in Suriname. *Photo: ITTO*

Criteria and indicators (C&I) for sustainable forest management (SFM) are arguably the most important policy instrument developed to operationalize SFM since the concept gained global recognition in the run-up to the 1992 Rio Earth Summit (ITTO 2011). Criteria represent the essential social, economic, environmental and policy elements of SFM, and indicators provide ways to measure the criteria. ITTO pioneered the development of C&I in the early 1990s (ITTO 1992) as a tool for assessing the condition of natural tropical forests in the Organization's producer member countries and to help identify weaknesses in forest practices and the improvements needed. The Organization has since revised its C&I (most recently in 2005) and provided over US$30 million to help member countries implement C&I at various levels.

Based on ITTO's early work and the outcomes of the Rio Earth Summit, other C&I initiatives were launched around the world and, in 1997, C&I were endorsed by the Intergovernmental Panel on Forests as tools to monitor, assess and report trends in forest conditions and progress toward SFM. By 2000, nine regional and international C&I processes involving 150 countries had been initiated. While the sets of C&I developed by these processes differed in various ways, they all reflected a holistic approach to forests as ecosystems with multiple values beyond wood and fibre production.

Today, it is generally recognized that C&I have contributed to a common understanding, within and among countries, of what is meant by SFM, and that C&I provide a common approach to assessing forest trends and progress towards SFM and a platform for exchanging knowledge, experiences and lessons learned. However, little information has been compiled on the ways in which C&I have been operationalized and how they have contributed to improved forest policies and management practices.

To help address these gaps, ITTO commissioned a study in 2011–2012 to gain a better understanding of the experiences of countries worldwide in using C&I and of the impacts of C&I on SFM, as well as to identify trends, developments and emerging issues relevant to C&I (Caswell et al. 2014). This article summarizes the study's main findings, as well as its proposals for increasing the impacts of the ITTO C&I in the field.

Scope of the study

The study focused on the following five active C&I processes, which together involve 90 countries with tropical, temperate or boreal forests:

- the ITTO C&I for the sustainable management of natural tropical forests (ITTO 2005);
- the African Timber Organization (ATO)/ITTO principles, criteria and indicators (PC&I) for the sustainable management of African natural tropical forests (ATO/ITTO 2003), which are the product of a highly successful collaboration between ITTO and African tropical timber producers (see article page 11);
- the Tarapoto Process on C&I for the sustainability of Amazonian forests, coordinated by the Amazon Cooperation Treaty (ACTO);
- the pan-European C&I for SFM, coordinated by FOREST EUROPE (see article page 15); and
- the Montreal Process C&I for the conservation and sustainable management of temperate and boreal forests, developed by the Montreal Process Working Group.

These sets of C&I are conceptually similar but differ—sometimes significantly—in scale (e.g. regional, national or forest management unit—FMU—level), emphasis and level of detail. For example:

- ITTO has developed C&I at both the national and FMU levels. Seven criteria and 48 indicators apply at both levels; an additional nine indicators apply at the national level only.
- The ATO/ITTO PC&I are highly detailed and normative in nature.[1] The PC&I comprise four principles (one at the national level and three at the FMU level), under which are 20 national-level and FMU-level criteria, 90 indicators and 145 sub-indicators.
- The Tarapoto Process focuses on a core set of seven criteria (one at the regional level, three at the national level and three at the FMU level) and 15 indicators as priorities for field validation; these priority C&I are drawn from the more detailed C&I contained in the 1995 Tarapoto Proposal.
- The pan-European C&I comprise six regional/national-level criteria and 52 quantitative and qualitative indicators. No FMU-level C&I are included.
- The Montreal Process C&I include seven national-level criteria with 54 indicators.[2] Again, no FMU-level C&I are included.

In addition to variations among C&I processes, countries within and across processes differ significantly in terms of their forest governance structures (e.g. from highly centralized to decentralized); forest ownership patterns (e.g. from state ownership to many small private owners); existing forest policy frameworks and forestry traditions; and forest types, extents and distributions. These factors, together with differences in capacity, affect how countries use and apply C&I.[3]

Methodology

Because not all C&I processes have FMU-level C&I, there is no common framework for assessing field-level uses and impacts of C&I across countries. This posed a challenge for the analysis. Based on consultations with the ITTO secretariat, it was decided that the most effective and efficient way to obtain factual information from a wide range of countries and C&I users at various levels on the use and application of C&I was to develop two surveys targeted at:

1. government officials with responsibilities—at the national or subnational (e.g. state, provincial or local) levels—for forest policy, planning, regulation or management; and
2. private forest stakeholders, including companies, associations and other operators subject to government policies and regulations, as well as forest certification programs.

The first survey was distributed to about 100 government officials in 40 countries based on input from ITTO and C&I process focal points. The second survey was sent to private and other non-government stakeholders in 70 countries based on contact information drawn from ITTO and consultant databases, internet searches and personal contacts. While survey responses were the foundation of the C&I study, the study also drew on ex-post evaluations of ITTO-funded C&I projects, regional and international forest assessments undertaken by FAO, ITTO and FOREST EUROPE, and the outputs of recent C&I process collaborative meetings.

Government survey results

Forty-six officials from 25 countries responded to the government survey, including 17 officials from ten ITTO producer countries (mainly in Latin America)[4], 25 responses from eleven ITTO consumer countries associated with the pan-European or Montreal C&I processes[5], and four responses from non-ITTO countries.[6] Together, responding forest authorities own, manage or regulate about 1 billion hectares (ha) of the world's forests, of which 40% is in the tropics. Since this represents about 25% of the world's forests and an estimated 45–50% of production forests, the study's authors considered that the responses provided a good overall picture of the range of C&I uses and impacts across countries. The study drew on ITTO ex-post evaluations and success stories (ITTO 2011) to bring forward experiences from African and Asian producer members not represented in survey responses.[7]

C&I as a framework for forest monitoring, assessment and reporting

Within the ITTO, ATO/ITTO and Tarapoto processes:

- Countries are generally—although not consistently—using C&I as a framework for monitoring, assessment and reporting (MAR) at the national level and for reporting to regional and international organizations, such as ACTO, ITTO (for its periodic tropical forest assessment reports) and FAO (for its periodic global forest resources assessments). Both FAO and ITTO noted considerable improvement in the quality of information provided by countries as part of those organizations' most recent assessments (FAO 2010; ITTO 2011).

1 The C&I used by the other four processes are formulated as neutral rather than performance measures.
2 The Montreal Process includes Argentina, Australia, Canada, Chile, China, Japan, Korea, Mexico, New Zealand, the Russian Federation, the United States and Uruguay.
3 The pan-European and Montreal processes have not developed FMU-level C&I because of such differences among participating countries.
4 Brazil, Colombia, Côte d'Ivoire, Guatemala, Guyana, Honduras, Malaysia, Mexico (also a member of the Montreal Process), Peru and Togo.
5 Australia, Canada, China, Finland, Japan, Korea, New Zealand, Norway, Sweden, the United Kingdom and the United States.
6 Argentina, Chile, the Russian Federation and Slovenia.
7 Ghana, Gabon, Indonesia, the Philippines and Thailand.

- Several countries have developed their own sets of C&I based on the ITTO C&I to reflect their specific circumstances and forest ecosystems (e.g. mangroves).
- A number of countries, often with ITTO assistance, have used C&I frameworks to strengthen national and FMU baseline data and forest inventories and to build databases on social and environmental indicators.
- Some countries are using FMU C&I to monitor and evaluate FMU management based on forest management plans or other operational plans; evaluate and report on progress toward SFM at broader levels by aggregating FMU-level data; and/or report on certified forest areas. ITTO FMU C&I are typically used for monitoring ITTO-financed projects.

Within the pan-European and Montreal processes:

- C&I are used widely as the framework for periodic MAR at the national level and for country reporting at the regional and global levels, including for FAO's global forest resources assessments.
- Process-level C&I have often been stepped-down or otherwise adapted to national circumstances (e.g. by developing national-level C&I).
- A number of state/provincial forest authorities have identified subsets of C&I (e.g. core indicators) for use as a MAR framework, including in some cases at the FMU level.
- C&I are widely used to organize, compile, present and communicate existing forest-related data and information.

Application of C&I in forest policies, programs, plans and regulations

A number of countries have operationalized C&I by incorporating them in various ways and at various levels into forest policies, plans and regulations, sometimes in response to information generated by C&I-based MAR. For example, individual ITTO producers, often facilitated by ITTO training and project support, have applied national and FMU-level C&I as a basis or framework for:

- forest-related legislation and regulations at the national, local or FMU levels;
- forest-related planning at the provincial, catchment or FMU levels;
- developing and approving forest management plans and monitoring and evaluating compliance;
- establishing best management practices and other technical standards, guidelines, procedures and manuals;
- formulating the terms and auditing of concession contracts, licences and logging permits and evaluating performance;
- developing legality and chain-of-custody control and verification systems;
- carrying out environmental monitoring and impact assessments; and
- developing national forest certification schemes.

In European and Montreal Process countries, C&I have often been integrated into or otherwise helped shape national forest programs, strategies, plans and guidelines. Some countries have also used C&I to:

- improve forest laws and regulations at the national, local and FMU levels;
- develop national or subnational (e.g. provincial) forestry standards and best management practices for experimental or model forests;
- assist private forest owners to develop FMU management plans;
- evaluate regulatory compliance and effectiveness; and
- regulate wood-harvesting quotas.

Stakeholder involvement in government C&I applications

Nearly all respondents have made efforts to engage stakeholders in C&I activities, including through roundtables, committees and dialogues at the national, provincial/state and local levels. Many officials considered that the meaningful involvement of stakeholders, while often challenging, is essential for the effective use and uptake of C&I. Several European and Montreal Process countries emphasized that stakeholder participation is a basic principle of their wider forest management planning, assessment, reporting and regulatory processes.

Challenges

The three greatest challenges faced by governments in the use of C&I are:

- limited financial and technical resources, especially for collecting data on social and environmental indicators (while all responding countries could report on some indicators, very few could report on all indicators);
- poor stakeholder understanding of the concept and purpose of C&I (including confusion about the differences between C&I and certification); and
- conflict among stakeholders on the use and management of forest resources.

ITTO producers also noted a lack of political commitment as a serious constraint, while European and Montreal Process respondents identified multiple levels of forest authorities (e.g. federal, state and local) as a frequent challenge. Other challenges were more country-specific and included issues related to land tenure, limited forest mandates, a lack of intersectoral coordination, agricultural incursions into forests, and the presence in forests of armed groups.

It was also pointed out that some process-level indicators were redundant, unsuited to national or FMU

circumstances, or overly complex, especially for use by indigenous peoples, local communities and small-scale operators. A few respondents recommended updating older C&I sets based on lessons learned and global developments, particularly those related to climate change and bioenergy.

Impacts of C&I on SFM

Despite challenges in implementing C&I, 59% of responding officials considered that the application of C&I had improved forest management practices either greatly (13%) or moderately (46%); another 22% reported that C&I had slightly improved SFM but that other factors were also relevant. The remainder did not believe that C&I had made a difference in forest management in their countries, usually because other tools were in place to assess forest conditions and management and to promote SFM. Of the 81% who responded positively, it was most often noted that C&I had contributed to SFM (to a greater or lesser extent) by providing a framework or basis for:

- developing a common global understanding of SFM and, in turn, catalyzing improved forest policies, programs and strategies;
- increasing awareness and appreciation of non-timber forest benefits and values;
- improving and expanding forest monitoring and assessment;
- developing management plans and standards and monitoring compliance;
- communicating trends in forest conditions to policymakers and the public;
- communicating and engaging with stakeholders; and
- improving forest databases, inventories and systems for collecting, managing, retrieving, updating and analyzing data.

Innovative applications of C&I by governments

Survey responses revealed that countries are using C&I frameworks in innovative ways that have had a positive indirect impact on SFM. For example, C&I frameworks have been used to help identify forest research needs and priorities; develop education initiatives; prepare environmental assessments and management plans for projects affecting forests; and, in one case, create a conservation bank for generating forest financing from industry, non-governmental organizations and others.

Stakeholder survey results

Twenty-four responses to the stakeholder survey were received from:

- eight tropical timber-producing companies managing 2 million ha of natural forest in Bolivia, Brazil, Cameroon, Ghana and Malaysia (Sarawak);
- four industry associations with 760 members representing at least 10 million ha of natural forest in Bolivia, Brazil and Malaysia (Sarawak);
- four plantation companies managing 222 500 ha in Australia, Bolivia, Ecuador and Mexico;
- one national non-governmental organization (the Foundation for People and Community Development, FPCD) working in community production forests in Papua New Guinea;
- two family forest owner associations—the International Family Forest Alliance (IFFA), whose member organizations represent 25 million families that own an estimated 20–25% of the world's forests, primarily in Europe and North America, and the Danish Forest Association, an IFFA member; and
- five national/regional forest certification programs covering 94 million ha in Australia, Brazil, Cameroon, Malaysia and North America.[8]

Despite their small number, the responses represent a broad cross-section of forest stakeholders and a significant forest area. They may well reflect stakeholder awareness of, and experiences with, C&I more broadly, especially in the tropics.

Harvesting in natural tropical forests

The tropical timber companies and industry associations responding to the survey all noted that forest authorities required their forest operations to be planned and carried out under approved forest management plans consistent with SFM. Most were familiar with the ITTO C&I and, depending on the country, with either the ATO/ITTO PC&I or the Tarapoto C&I. Many had been involved in government discussions on C&I, and several said they had benefited directly or indirectly from ITTO-sponsored C&I training. One respondent had used ITTO's C&I to train forest managers and workers and establish university curricula. Forest Stewardship Council (FSC)-certified operators followed the FSC principles and criteria for MAR but noted that the ITTO and ATO/ITTO FMU C&I had paved the way for FSC certification. One FSC-certified company continued to use FMU C&I to assess high-conservation-value forests and forest protective functions. Non-certified operators continued to rely on FMU C&I and expressed interest in receiving C&I training, including as a first step towards certification.

Harvesting in tropical plantations

The four responding plantation companies reported that their operations were required to be carried out under approved management plans and that other internal and external procedures, standards and controls often also applied. All companies were certified under the FSC or the

8 The Australian Forest Standard; CERFLOR (Brazil); the Cameroon Forest Certification Initiative; the Malaysian Timber Certification Council; and the Sustainable Forestry Initiative (Canada and the United States).

Programme for the Endorsement of Forest Certification (PEFC), or were in the process of becoming certified and were following FSC standards. Only the operations in Bolivia and Ecuador were aware of C&I.

Community and family forestry

FPCD is a long-time observer at ITTO meetings and is familiar with ITTO's work on C&I. However, the organization has developed its own Indigenous Community Forestry Group Certification Scheme based on Papua New Guinea's FSC national standards, which are simpler to use than ITTO's FMU-level C&I and reflect the local context.

Member organizations of the IFFA have typically been involved in developing national FSC or PEFC standards, and many family harvesting operations are certified. The IFFA uses the pan-European and Montreal Process C&I frameworks and local and traditional knowledge as guides to promoting SFM, multiple-use approaches and locally controlled forests in a variety of international fora.

Certification programs

The five responding certification programs are independent entities that set standards for forest management and chain-of-custody certifications. All five use standards based on one or more of the C&I frameworks, and four have been endorsed by the PEFC, which is also based on C&I. The area of forest certified under these programs has increased significantly in the last decade and is likely to continue to expand.

Key trends and developments related to forest management

The following global trends, developments and emerging issues are particularly relevant to forest management, including future C&I applications, reviews and updates.

Expanding area of forests under SFM

According to FAO (2010), the area of forest covered by management plans has increased steadily and now exceeds 1.6 billion ha globally. Based on data collected from over 100 countries, FAO (2010) concluded that "significant progress has been made over the last ten years" toward SFM. This finding is echoed in a recent ITTO study (Blaser et al. 2011), which estimated that 52 million ha of production-focused natural tropical forests were under SFM in 2010, an increase of 50% since 2005, and that 131 million ha were covered by forest management plans, compared with 96 million ha in 2005. While major drivers of the increases in area under forest management plans and SFM were certification and, in the tropics, climate-change initiatives, government responses to the C&I survey reported here indicate that improved C&I-based forest policy, management and databases were also factors. As noted above, 81% of responses indicated that C&I had had at least some level of impact on SFM in their countries.

New interest in biofuels

Rising energy costs and concerns over greenhouse gas emissions from fossil fuels have generated interest in the production of forest-based biofuels as an alternative energy source. Since biofuels are among the products flowing from forests, current sets of national and FMU C&I include a number of indicators relevant to sustainable biofuel production (e.g. land available for production, growing stock, value/volume of wood products, wood consumption, and the impact of economic use on resource availability). Building on these indicators, the International Energy Agency and FAO recently developed PC&I for intensive sustainable woodfuel production and harvesting. Inputs from ITTO and other C&I processes to the future development of such PC&I would be useful.

C&I and climate change

REDD aims to create a financial value for the carbon stored in forests and thereby to offer incentives to developing countries to reduce greenhouse gas emissions from deforestation and forest degradation, which account for an estimated 20% of annual global emissions. Concerns that REDD may view and value forests primarily for their carbon storage benefits and emphasize forest preservation over active management have led to REDD+, which adds, among other things, "sustainable management of forests" as an eligible approach. Since C&I include indicators relevant to forest carbon (e.g. growing stock, age structure, annual removals, annual harvest, forest carbon pools, and carbon storage and fluxes), some countries are using these indicators and datasets in carbon calculations and methodologies. Greater recognition of the role of C&I in this context, as well as further development of carbon-related forest indicators and datasets, could help operationalize SFM aspects of REDD+.

The legal, policy and institutional components of C&I have provided a foundation for an ongoing initiative by FAO and the World Bank's PROFOR program to develop a "framework for assessing and monitoring forest governance" in the REDD+ context. Inputs from ITTO and other C&I processes in the future development of this framework would be useful.

Strategic plan for biodiversity 2011–2020

Several of the 20 Aichi Biodiversity Targets within the Convention on Biological Diversity's new strategic plan for biodiversity encompass forests. An "indicative list of indicators" has been developed to assess global and national trends towards the targets. Inputs from ITTO and FAO could help identify measurable forest-related global indicators based on the aggregation of national C&I data for international forest assessments.

Conclusion

Since they were pioneered by ITTO in the early 1990s, C&I have helped countries and the international community

to understand and operationalize the evolving concept of SFM. Differences among countries in terms of forest governance structures, ownership patterns, existing policy frameworks and forestry traditions, as well as capacity issues, affect how countries use and apply C&I. While process-level C&I provide a common reference framework for participating countries, such countries often need to adapt or step-down process-level C&I to reflect conditions and circumstances at the national and FMU levels.

Forest monitoring, assessment and reporting

ITTO producers (often with ITTO support) and other countries have made progress in using C&I for MAR. This is reflected in improved forest inventories, databases and systems of data collection and analysis and the availability of information at the national, subnational and FMU levels. Such improvements have helped officials and FMU managers identify weaknesses in forest management and make adjustments where needed. Improvements in the quality, coverage and consistency of C&I data have enabled more comprehensive regional and global forest assessments. Countries using C&I for MAR tend to be well positioned to respond to external forest-related reporting requests.

Contribution to SFM

The area of forests under SFM has increased significantly in recent years, including in the tropics. While certification and climate-change initiatives have contributed to this positive trend, the increased use of C&I has also been an important factor.

C&I have contributed to improved forest management in a variety of ways, including by increasing awareness of forest benefits beyond timber production and by highlighting the importance of policy and management frameworks that integrate the social, economic and environmental values of forests. Specific benefits vary from country to country. The impact of C&I on SFM has generally been greater in countries that—with stakeholder involvement—have incorporated C&I approaches into legislation, policies, programs, strategies, guidelines and standards that govern forest practices.

FMU-level C&I have provided a basis on which ITTO producers, often with ITTO support, have formulated, approved and monitored compliance with forest management plans and best management practices and with concession contracts, agreements and permits. C&I have contributed to (and in many cases provided a basis for) forest certification. The application of FMU-level C&I has helped private operators move toward certification.

Challenges encountered

Despite good progress, all countries, particularly tropical producers and other developing countries, face challenges in applying C&I, ranging from insufficient capacity and commitment to inadequate policy frameworks and stakeholder engagement. The nature and extent of the challenges vary by country. Some can only be addressed internally by raising the priority of forests on national agendas. Others can be facilitated through greater international cooperation, partnerships and collaborative C&I initiatives.

There is a continuing need to strengthen the capacity of countries to collect data and report on indicators, and to integrate C&I into policies and programs at an operational level. At the same time, existing indicator sets may be overly complex, redundant or unsuited to national circumstances. FMU-level indicators in particular may benefit from a review of their suitability for practical use by local communities and small enterprises.

Global developments and emerging issues

C&I for SFM are relevant to wider forest-related developments and issues, including the sustainable production of forest-based biofuels, forest carbon calculations at various levels, measuring progress toward biodiversity targets, and serving as models for assessing the sustainable management of other natural resources. The role of C&I in addressing forest-related global challenges is increasingly evident and warrants further attention, including input from ITTO and other C&I processes.

ITTO leadership

ITTO has been, by far, the single biggest supporter of C&I training, testing and implementation in ITTO producer countries. In some cases, further ITTO assistance is needed to adapt C&I to national/FMU circumstances, engage stakeholders and strengthen databases and monitoring systems. Other potential sources of C&I financing, including FAO, the Global Environment Facility and the World Bank, could contribute significantly to national C&I efforts and complement ITTO support.

ITTO's C&I would benefit from review and update to take into account the experiences of member countries, progress in other C&I processes, and other relevant trends and developments. Given ITTO's long experience with C&I, greater collaboration with FAO, other members of the Collaborative Partnership on Forests (CPF) and other C&I processes would promote further learning, innovation and cooperative activities and increase the contribution of C&I to local, national and global sustainability.

Key recommendations

To continue and strengthen ITTO's work and leadership on C&I, the study proposed that ITTO consider the following actions.

Strengthen the impact of the ITTO C&I in the field

- Organize additional national and subregional consultations involving private stakeholders to focus

strategically on the uptake of C&I at the FMU level. Such consultations could identify ways to meet specific challenges, such as by:

  - adapting the ITTO C&I to suit the circumstances of individual countries at the FMU level;
  - establishing mechanisms for effective stakeholder communication and outreach;
  - identifying capacity-building priorities for data collection and analysis;
  - establishing demonstration forests for FMU C&I applications; and
  - exploring linkages between FMU C&I and applicable certification standards, and the potential for harmonization.

- Incorporate C&I uptake into components of ITTO's thematic programs that address forest-related MAR and progress toward SFM.

Review ITTO's national and FMU C&I

- Initiate a process to comprehensively review and (if needed) improve the ITTO C&I based on lessons learned and recent developments, taking into account ITTO's revised guidelines for the sustainable management of natural tropical forests and other relevant guidelines; recent indicator updates by other C&I processes, in particular the Montreal Process; the seven thematic elements of SFM; trends in certification and the local control of forests; and relevant global developments and emerging issues related to, for example, climate, bioenergy and biodiversity. Consideration should be given to:
  - streamlining aspects of the national-level and FMU-level C&I;
  - identifying a core set of indicators for use by indigenous peoples and local communities;
  - the further development or grouping of indicators on sustainable woodfuel production, the contribution of forests to carbon cycles, and forest governance;
  - exploring linkages between FMU-level C&I and certification standards; and
  - exploring connections among the ITTO, ATO/ITTO and Tarapoto sets of C&I and the feasibility and merits of greater convergence.

Strengthen partnerships and collaboration with CPF members and C&I processes

- Engage with the International Energy Agency, FAO and the World Bank's PROFOR on their respective initiatives on assessing and monitoring forest governance in the context of REDD+ and developing PC&I for sustainable woodfuel production.
- Work with FAO and the secretariat of the Convention on Biological Diversity to identify indicators for the forest-related components of the Aichi Biodiversity Targets, for which C&I baseline information is available through ITTO and FAO data-collection processes.
- In collaboration with FAO, C&I processes, the Global Environment Facility, the World Bank and other CPF members, organize a joint expert consultation to identify ways to improve and expand international financial, technical and scientific cooperation on C&I, including by tapping into climate-related sources of funding, and provide a framework for ongoing communication and consultations on C&I and related SFM issues.
- Through the ITTO thematic programs and projects, as well as projects financed through bilateral cooperation, FAO and the Global Environment Facility, encourage ITTO members to give greater priority to the implementation of C&I at the FMU level.

Next steps

Activity 10 of the ITTO Biennial Work Programme 2013–2014 includes three targets for moving forward on the above recommendations. Under Target (a), 2–4 national C&I training workshops will be convened, incorporating auditing, certification and international reporting requirements in the curricula.

Under Target (b), an expert meeting will be held to review the ITTO C&I in light of the experience gained in compiling ITTO's status of tropical forest management reports (the most recent of which was published as Blaser et al. 2011), recommendations from national C&I workshops, revisions of ITTO guidelines and policy papers, a review of the field-level implementation of C&I carried out by ITTO in 2010–2011, and relevant international developments (e.g. in the area of climate change).

Under Target (c), the ITTO secretariat will participate in international meetings and initiatives related to C&I, including the Collaborative Partnership on Forests Task Force on Streamlining Forest-related Reporting, meetings of other C&I processes, and initiatives to promote synergies between ITTO's status of tropical forest management reports and FAO's global forest resources assessments.

Given the major impact of the ITTO C&I on shaping forest policy and practice in the tropics, it is to be hoped that ITTO will receive sufficient contributions from members to fully fund these activities and continue the development of the ITTO C&I.

Acknowledgements

The author gratefully acknowledges the contributions of co-consultants Ivan Tomaselli and Sofia Hirakuri to the study this article is based on, as well as inputs from Steven Johnson of the ITTO secretariat and numerous representatives of other C&I processes.

References

ATO/ITTO 2003. *ATO/ITTO principles, criteria and indicators for the sustainable management of African natural tropical forests.* African Timber Organization and ITTO, Yokohama, Japan. Available at: www.itto.int/policypapers_guidelines.

Blaser, J., Sarre, A., Poore, D. & Johnson, S. 2011. *Status of tropical forest management 2011*. ITTO, Yokohama, Japan. Available at: www.itto.int/sfm.

Caswell, S., Tomaselli, I. & Hirakuri, S. 2014 (in press). *Uses and impacts of criteria and indicators for sustainable forest management*. ITTO Technical Series No. 42. ITTO, Yokohama, Japan. Available from April 2014 at: www.itto.int.

FOREST EUROPE, UNECE & FAO 2011. *State of Europe's forests 2011: status and trends in sustainable forest management in Europe*. FOREST EUROPE, Oslo, Norway, United Nations Economic Commission in Europe, Geneva, Switzerland, and FAO, Rome, Italy.

FAO 2010. *Forest resources assessment 2010*. Final report. FAO Forestry Paper No. 163. FAO, Rome, Italy.

ITTO 2005. *Revised ITTO criteria and indicators for the sustainable management of tropical forests including reporting format.* ITTO Policy Development Series No. 15. ITTO, Yokohama, Japan. Available at: www.itto.int/policypapers_guidelines.

ITTO 2011. *Twenty-five success stories: illustrating ITTO's 25-year quest to sustain tropical forests.* ITTO, Yokohama, Japan. Available at: www.itto.int/partner/id=2796.

ITTO VACANCY ANNOUNCEMENT No. 73
(DEADLINE FOR APPLICATION: 30 APRIL 2014)

Position/Title	Level (Grade)	Duty Station	Date for Entry on Duty	Duration of Assignment
EXECUTIVE DIRECTOR	ASG	YOKOHAMA, JAPAN	6 November, 2015	FIXED TERM: FOUR YEARS (RENEWABLE)

The International Tropical Timber Organization (ITTO), a commodity organization headquartered in Yokohama, Japan, is in the process of appointing a new Executive Director. The ITTO mission is to promote the expansion and diversification of international trade in tropical timber from sustainably managed and legally harvested forests and to promote the sustainable management of tropical timber producing forests. The Executive Director is the chief administrative officer of the International Tropical Timber Organization and is responsible to the International Tropical Timber Council for the administration and operation of the International Tropical Timber Agreement, 2006, in accordance with decisions of the Council. The ITTO explicitly encourages applications from qualified female candidates. Candidates who are citizens of ITTO member countries (see www.itto.int) with the following qualifications may apply.

1. Competencies

Demonstrates:

(i) Professionalism: Professional competence and mastery of subject matter, is conscientious and efficient in meeting commitments, observing deadlines and achieving results.
(ii) Accountability: Ability to operate in compliance with organizational rules and regulations, to deliver outputs within prescribed time, cost and quality standards.
(iii) Communication: Ability to communicate effectively orally and in writing. Listens to others, correctly interprets messages from others and responds appropriately. Openness in sharing information and keeping people informed.
(iv) Networking: Ability to create and maintain a network of external contacts and coalitions with other relevant organizations, in a manner that enables the ITTO to play a leadership role internationally on matters relevant to its mandate.
(v) Leadership: Experienced in proactively developing goals and strategies to accomplish the organization's objectives.
(vi) Vision and innovation: Creates an environment that fosters innovation and innovative thinking. Empowers others to translate vision into results.
(vii) Skill in managing performance: Delegates the appropriate responsibility, accountability and decision-making authority. Makes sure that roles, responsibilities and reporting lines are clear to each staff member. Monitors progress against milestones.
(viii) Ethical standards: Committed to the highest ethical standards in furtherance of his/her mission and the objectives of the ITTO.
(ix) Gender balance sensitivity: Committed to promoting equal opportunities.
(x) Diplomatic and negotiation skills, including experience in working with high-ranking government and industry representatives.

2. Professional Experience

(i) Managerial experience: a proven track record and at least 15 years of experience in managing programs, staff and finances, in matters relevant to forestry, trade, environment or other equivalent field with proven experience in strategic planning;
(ii) Specific experience: demonstrated experience in the field of sustainable forest management and timber trade would be a distinct advantage;
(iii) International experience: previous work at the international level and experience in dealing with international organizations; and
(iv) Partnership building and fundraising experience: Demonstrated experience in creating strategic partnerships/networks and promoting initiatives with partner organizations. Demonstrated experience in mobilization of financial resources would be a distinct advantage.

3. Education

Master's or Ph.D. degree in forestry, natural resource management and conservation, economics, business administration, or any other relevant field.

4. Language

Proven ability in both oral and written communication in one of the official languages of ITTO (English, French and Spanish) and preferably a working knowledge in the other two official languages. Good command of English would be a distinct advantage.

5. Salary and Emoluments

Salary is equivalent to that of an Assistant Secretary General (ASG) in the scale of the United Nations, including benefits such as removal expenses, home leave travel every 24 months, children's education grant, rental subsidies, etc.

6. Conflict of Interest

Candidates should have no vested financial interest in the timber industry or timber trade and related activities.

7. Applications

Written applications including a cover letter explaining how the candidate meets the required qualifications, a completed United Nations Personal History form (form P.11), a curriculum vitae and additional supporting materials related to the job qualifications and a recent photo should be received at ITTO headquarters by 30 April 2014 by 17:00 hours (Japan time). Applications may be submitted electronically or by mail or fax and should be sent to:
Executive Director, International Tropical Timber Organization
International Organizations Center, 5th Floor Pacifico-Yokohama,
1-1-1, Minato-Mirai, Nishi-ku, Yokohama, Japan 220-0012
Tel: (81-45) 223-1110 Fax: (81-45) 223-1111 E-mail: itto@itto.int