Beginner's Guide to the International Standards Organization (ISO)

Fitting ISO with Forest Certification

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Background

Forest certification involves the use of a standard to evaluate forest management practices. A common element of forest certification programs is the requirement to provide adequate documentation and monitoring or control practices to demonstrate compliance with the agreed-upon standard. For many business owners and forest managers it is often the case that forest management practices are very good or even exemplary, but their documentation and control procedures are inadequate to meet the standard. One benefit of the certification process can be the implementation of documentation and control procedures that not only meet the needs of certification but also help improve the overall operational performance of the organization. The International Standards Organization (ISO) provides a model of documentation and control procedures for an organization, and ISO compliance and/or certification is an excellent complement to forest certification systems.

It is not accurate to call any of the ISO standards, including ISO 9000 or 14000, "forest certification systems." However, most forest certification systems have relied on ISO standards for the design, application and maintenance of at least part of their programs.

ISO is a network of the national standards institutes of 146 countries, on the basis of one member per country, with a Central Secretariat in Geneva, Switzerland that coordinates the system.

***ISO 9000** is concerned with "quality management". The focus is on what an organization does to enhance customer satisfaction, meet customer and regulatory requirements, and to continually improve its performance in this regard.*

***ISO 14000** is primarily concerned with "environmental management". This standard deals with establishment of systems to minimize harmful effects on the environment caused by an organization's activities and to continually improve environmental performance.*

/www.iso.org/iso/en/aboutiso/introduction/index.html

An Introduction to ISO

The International Standards Organization (ISO) is a non-governmental, membership-based organization. ISO is the world's largest standard setting organization and has members from 146 countries. ISO members are government or non-government standard setting organizations. The American National Standards Institute (ANSI) represents the United States and the Standards Council of Canada (SCC) represents Canada.

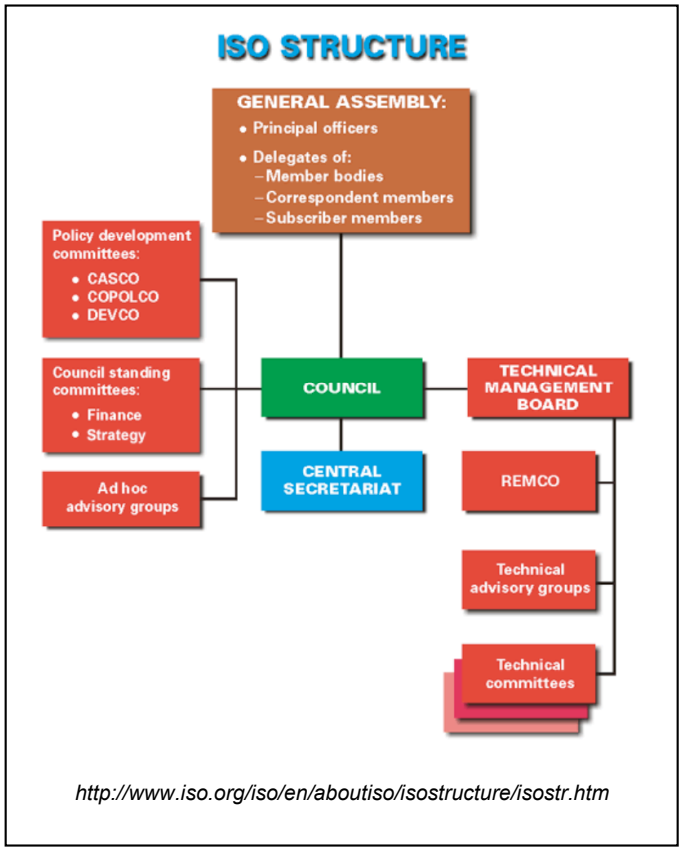
Since 1947, ISO has published more than 13,000 standards for everything from medical devices to screw threads. The general goal of all ISO standards is to "contribute to

making the development, manufacturing and supply of products and services more efficient, safer and cleaner."[1]

The ISO Structure

As a large, international organization the ISO structure is complex. At first glance ISO appears to be a terribly bureaucratic and complicated system, yet this system has churned out some of the most widely applied standards in the world.

There are three ISO membership categories: member bodies, correspondent members, and subscriber members. A member body is the national body "most representative of standardization in its country."[2] Only one member body is allowed for each country and these members have full voting rights on technical and policy committees. Correspondent members are organizations from countries that do not have fully developed national standard setting activities. These members do not play an active role in committees. The subscriber membership category aims to accommodate countries with very small economies by offering a reduced membership fee that provides them with access to the international standardization process and activities.



http://www.iso.org/iso/en/aboutiso/isostructure/isostr.htm

The membership convenes in the General Assembly. The General Assembly has the responsibility of establishing Policy Development Committees. The three existing Policy Development Committees are CASCO to address conformity and mutual recognition; COPOLCO to address consumer needs and improve consumer participation in standardization; and DEVCO for addressing developing countries' needs. The General Assembly also elects member bodies to the Council.

The Council, consisting of the Officers and 18 elected member bodies, governs the operations of ISO. The United States' member body, ANSI, was elected to the 2005

[1] http://www.iso.org/iso/en/aboutiso/introduction/index.html
[2] http://www.iso.org/iso/en/aboutiso/isomembers/index.html

Council. The Council is responsible for appointing the treasurer, 12 members of the Technical Management Board, and the Chairmen of the policy development committees[3]. The Technical Management Board (TMB) is a highly influential element of the ISO structure.

The Technical Management Board has a long list of responsibilities, including:

- reporting to and advising the council on all matters related to the technical work of ISO,
- examining proposals for new ISO standards,
- making determinations to establish or dissolve ISO technical committees,
- examining and coordinating all proposals for amendments and approving revisions to ISO standards,
- monitoring and approving the work of technical committees,
- allocating secretariats of technical committees, appointment of committee chairpersons,
- overseeing appeals against committee actions,
- resolving technical coordination issues,
- advising the Secretary-General on technical collaboration with other standard setting bodies,
- appointing registration authorities and maintenance agencies for international standard implementation, and
- establishing and dissolving Technical Advisory Groups and other general committees.

The TMB is directly responsible for 15 published ISO standards. Current members of the TMB include the member bodies of Spain, France, the USA, United Kingdom, Germany, Denmark, Malaysia, Japan, China, Canada, New Zealand, and Italy.

The three committees overseen by the TMB are the Committee on Reference Materials (REMCO), Technical Advisory Groups (TAGs), and Technical Committees (TCs). The REMCO committee oversees the format and structure of ISO documents and reference materials. The TMB establishes TAGs when necessary to advise the Board on areas of new work. As of April 2002, there were three TAGs established to address Health Care Technology (TAG 1), Metrology (TAG 4), and Building (TAG

ISO Statistics
December 2004

Membership
146 National Standards Bodies
99 member bodies
36 correspondent members
11 subscriber members

Technical Committee Structure
2,952 technical bodies
190 technical committees
544 subcommittees
2,188 working groups
30 ad hoc study groups

Development of International Standards
14,941 International Standards and documents
1,247 International Standards done in 2004
895 New work items (as of 12/31/04)

http://www.iso.org/iso/en/aboutiso/isoinfigures/January2005-p1.html

[3] http://www.iso.org/iso/en/aboutiso/isostructure/council.html

8)[4]. There are nearly 200 Technical Committees addressing very specific areas of ISO work, including several that are closely related to the forest sector, such as TC 6 Paper, board and pulps, TC 51 Pallets, TC 89 Wood-based panels, TC 165 Timber Structures, and TC 218 Timber. As an example of the scope of work for these committees, TC 218 works on the "standardization of round, sawn and processed timber, and timber materials in and for use in all applications, including terminology, specifications, and test methods.[5]" This Technical Committee also has five Working Groups to address Terminology, Round timber, Sawn and processed timber, Test methods, and Flooring.

ISO in the United States & Canada

The American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) represent the United States and Canada, respectively.

The American National Standards Institute was founded in 1918 and is a private, non-profit organization that administers and coordinates a broad-based voluntary standardization and conformity assessment system from its headquarters in Washington, D.C and its New York offices. The mission of ANSI is to "enhance both the global competitiveness of U.S business and the U.S quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and safeguarding their integrity."[6] There are about 1,000 members of ANSI including both domestic and international private companies and government agencies. Besides representing the United States within ISO, ANSI is also the US representative to the International Accreditation Forum (IAF), the International Electrotechnical Commission (IEC), the Pacific Area Standards Congress (PASC) and the Pan American Standards Commission (COPANT).

The Standards Council of Canada (SCC) provides similar functions as ANSI, but the SCC is a federal Crown corporation with the mandate to "promote efficient and effective standardization."[7] The SCC oversees Canada's National Standards System (NSS), which has over 15,000 members involved with developing, promoting and implementing standards in Canada. Also, the SCC has accredited more than 400 organizations to develop standards or provide a variety of services related to the implementation of standards. The SCC has accredited the Canadian Standards Association, which developed and maintains a standard for Sustainable Forest Management (CSA Z809-02). The SCC offices are in Ottawa.

[4] http://www.iso.org/iso/en/aboutiso/isostructure/TAG.html
[5] http://www.iso.org/iso/en/stdsdevelopment/tc/tclist/TechnicalCommitteeDetailPage.TechnicalCommitteeDetail?COMMID=4775
[6] http://www.ansi.org/about_ansi/overview/overview.aspx?menuid=1
[7] http://www.scc.ca/en/about/index.shtml

ISO 9000 & 14000

Most ISO standards are very product specific and address such details as product size and shape or coding elements such as terminology or barcode format. In contrast, ISO 9000 and 14000 are less prescriptive standards addressing management systems. The ISO 9000 and 14000 standards are not specific to the forest sector and can be applied to nearly any organization of any size, making any product or offering any service.

The ISO 9000 standard addresses "quality management," meaning what an organization does to enhance customer satisfaction, meet customer requirements, conform to applicable regulatory requirements, and improve performance. The ISO 9000 standard was initiated in 1987, published in 1994 and recently revised in 2000. More than half a million organizations in more than 60 countries are implementing ISO 9000. China has the greatest number of ISO 9000 certified companies with more than 40,000. There are fewer than 5,000 ISO 9000 certified companies in the United States[8]. ISO Technical Committee 176 is responsible for *Quality Management & Quality Assurance,* including the ISO 9000 family of standards and maintains a website with relevant information at: *http://www.tc176.org/Interpre.asp*.

ISO 9000
Quality Management Principles

1. Customer focus
2. Leadership
3. Involvement of people
4. Process approach
5. System approach to management
6. Continual improvement
7. Factual approach to decision making
8. Mutually beneficial supplier relationships

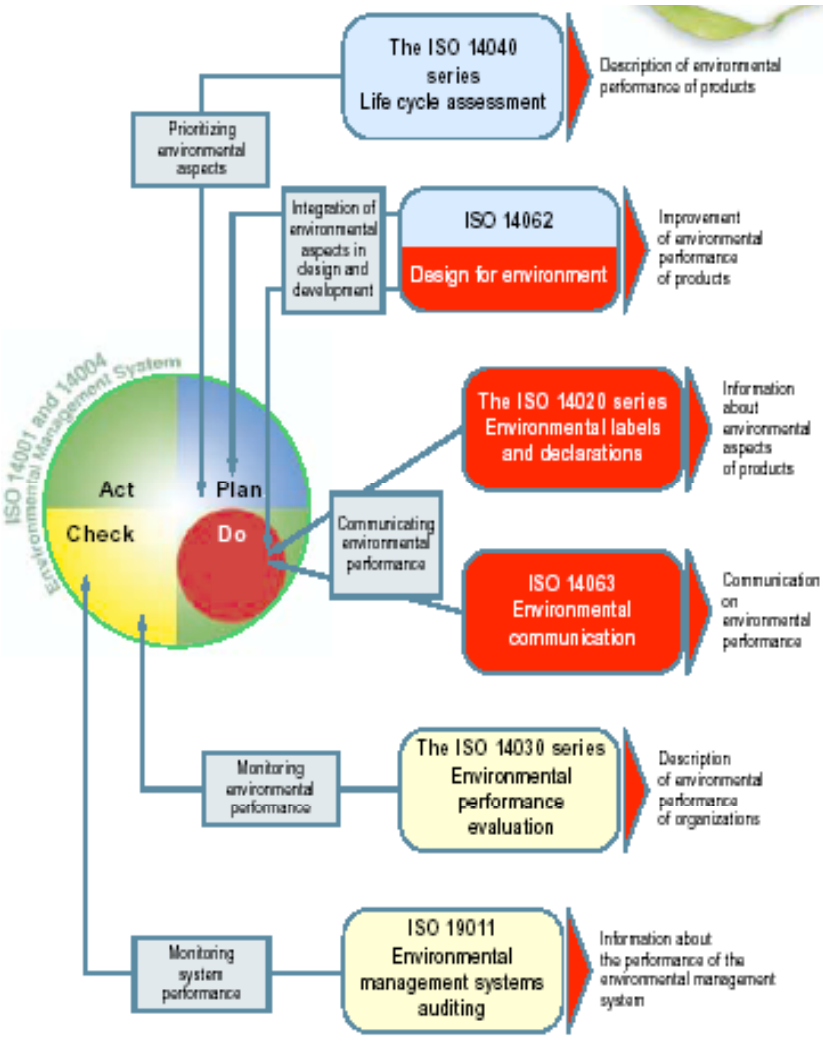
http://www.iso.org/iso/en/iso9000-14000/iso9000/qmp.html

The secretariat position of TC 176 is held by the Standards Council of Canada and administered by the Canadian Standards Association (CSA).

The ISO 14000 standard addresses "environmental management", meaning what an organization does to minimize harmful environmental impacts caused by its activities, and what is done to continually improve environmental performance. The ISO 14000 family of standards also includes ISO's guidance on Life Cycle Assessment. The ISO 14000 standard was first published in 1996. About 2,600 ISO 14000 certificates have been issued in the United States, with nearly 50,000 ISO 14000 certificates issued globally. Japan leads with more than 10,600 certificates[8]. The ISO TC 207 for *Environmental Management* maintains the ISO 14000 standard (http://www.tc207.org). This TC is also administered by the CSA.

The diagram on the following page helps to illustrate the ISO 14000 components. Very basic information on ISO 14000 is available at *The Kids' ISO 14000 Programme*: *http://www.iso.org/iso/en/kidsiso14000/index.html*

[8] http://www.iso.ch/iso/en/iso9000-14000/pdf/survey12thcycle.pdf



The ISO 14000 Model

http://www.iso.org/iso/en/prods-services/otherpubs/iso14000/model.pdf

The Relationship Between ISO and Specific Forest Certification Programs

Nearly every existing forest certification system is linked in some way to ISO standards. Most commonly forest certification programs use ISO Standards guiding environmental audits and auditor qualifications. For example, the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) both reference ISO 19011:2002 with its guidance on the principles of auditing, management of auditing programs, audit conduct, and auditor competence. The FSC also references ISO/IEC Guide 65:1995 for defining reporting requirements. The SFI references ISO 14050:2002 as a source of vocabulary and terminology definitions. The Canadian Standards Association (CSA) forest certification standard (CSA/SFM Z809-02) references ISO standards extensively including through the Systems Requirements section of their standards document.

These examples illustrate the synergies between ISO and the various forest certification programs; however, they also illustrate the fact that ISO is a system to help structure

forest certification and create consistency between program operations, but not one that replaces or competes with the actual forest management standards.

Issues with ISO

Although ISO is generally recognized as the international, undisputed leader in standard setting, it is not without its critics. Some complaints about the system are basic, such as the common complaint that ISO standards are not readily accessible. Most ISO standards can be downloaded from the organization's website, but fees are charged and because ISO standards reference each other, it is rare that ordering just one file will answer all the questions that one might have. Cumulative costs can be substantial.

Although charging fees to recoup the costs of standards development is defensible, it does seem to undermine the intent of ISO's programs and claims that ISO is designed for any and all organizations regardless of size and including those of developing countries. This complaint is closely linked to concerns about ISO's work in exploring licensing fees for commercial products that use ISO standards in their design or development. Some argue that because certain ISO standards are used so universally, such as international language and country codes, that they should be put into the public domain[9].

More significant ISO complaints involve situations where ISO compliance violates compliance with other voluntary or regulatory practices. ISO has resources committed to addressing standard harmonization issues, but these conflicts still occur. ISO has also been accused of inadequately engaging stakeholders, and competing organizations such as ISEAL[10] have formed to provide alternative guidance for standard setting processes. The ISEAL Alliance focuses on social and environmental issues in standard setting, certification and accreditation.

Another area of criticism of ISO standards is that their application stifles organizational creativity and the discovery of unique, tailored solutions and systems to address organizational needs. Some business leaders argue that ISO creates a lowest common denominator for business systems and also promotes the idea that every problem just needs a good "system" to solve it. A vocal critic in this debate is British Author John Seddon. In his book, *In Pursuit of Quality: The Case Against ISO 9000* Seddon argues that the ISO 9000 standard discourages the flexible, customer-focused approach that is needed for businesses to succeed in today's competitive marketplace. He blames market-place coercion for the continued use of ISO 9000 and cites examples, including Toyota, to illustrate companies that have tried ISO 9000 and found it to be of no benefit[11]. However, Toyota has made strong commitments to ISO 14001 and since Dec. 31, 2003 has required suppliers to conform to this standard[12].

[9] http://www.xml.com/lpt/a/2003/09/24/deviant.html
[10] http://www.isealalliance.org
[11] http://www.lean-service.com/6-22.asp
[12] http://www.toyota.com/about/environment/manufacturing/supplier.html

A final issue with ISO, and a primary reason why it is inaccurate to lump ISO with forest certification systems, is the lack of defined minimums in ISO standards. The ISO system allows an organization to set its own targets with ISO auditors playing the role of confirming that the organization is meeting the goals it has set. Organizations also have the option of following ISO standards independently without the requirement of a third-party audit to verify compliance unless the organization wants to make public claims or is required to complete an audit for legal reasons. The potential variability in practices in ISO certified companies is significant. For example, Forest Company A could set the goal of doing 100% natural regeneration on all its acres and Forest Company B could set a goal of reducing its use of natural regeneration to less than 5% of its acres. So long as both companies are following ISO principles and making process towards their individual goals, they would meet the ISO standards. ISO is a systems evaluation program, not a forest certification program. ISO does not allow organizations that are ISO certified to apply any certification claims to their products and there is no ISO labeling program.

Conclusion

Standards provide a variety of benefits and serve a variety of purposes. The ISO family of standards is significant in its ability to promote conformance and uniformity across a wide array of functional areas in an organization. It provides a framework that allows an organization to constantly monitor, control and adapt organizational processes. Alternately, forest certification systems have been designed to recognize adherence to a minimum set of performance measures that are intended to address widely held concerns about environmental, social and economic conditions associated with forests and their management. Organizations certified under forest certification programs are able to make product claims and customers can be assured that all certificate holders of a specific certification system meet a certain standard of practice. For example, all FSC certificate holders will be producing products without the use of genetically modified organisms (GMOs); all SFI certificate holders will be meeting agreed upon 2-4 year forest regeneration standards; all CSA certificate holders will have utilized a rigorous public participation process to identify objectives for sustainable forest management; and all ATFS certificate holders will have a management plan in place that addresses a variety of issues including wildlife and recreational interests.

The ISO system focuses on process rather than content. Customers can be assured that an ISO 14000 certified organization has an Environmental Management System (EMS) that includes a number of essential features, and that the ISO certified organization performs with an extremely high level of reliability and accountability. However, the specific approach, outcomes and goals used to establish these features can vary significantly between certificate holders. The ability to apply ISO guidance broadly and with great flexibility is an intended strength of the system's design. The pairing of an ISO 14000 system with a third-party forest certification system is widely recognized as a highly effective way to improve organizational operations and increase the benefits of both programs. The simple conclusion is that ISO addresses a different area of concern than most forest certification systems. Forest certification provides the expectations for how a forest should be managed. ISO certification provides the systems and processes that assure this management can be monitored and is consistent and reliable.

This report was prepared by

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