ProForest

Assessing forest certification schemes: a *practical guide*

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1 RATIONALE

The increasing importance of forest certification globally, together with the growing number of certification schemes which are available or being developed, has led to an intense international debate about the relative acceptability of different schemes.

A number of studies have proposed sets of criteria to be used to assess schemes. Some of these aim to provide guidance in assessing whether one particular scheme is acceptable, while others aim to provide a framework for comparing different schemes as a means of allowing 'mutual recognition' between two schemes which are thus shown to be compatible (Box 1.1).

Despite the work which has been done, considerable disagreement remains about what constitutes a 'good' forest certification scheme and how schemes should be assessed.

Analysis of the discussion to date reveals two factors which appear to be contributing to this lack of agreement:

- **There is a lack of precision about the objectives which the certification scheme is expected to deliver** Discussion of an assessment implies that there is a set of desired outcomes against which the assessment is being done. For assessing forest certification schemes these outcomes are the objectives which the user wishes the scheme to deliver. Some reports have made this explicitly clear, but many continue to be vague about what exactly the objectives are.

  This in turn leads to confusion or disagreement about the outcome since it is only possible to defend the decision that a particular scheme is or is not acceptable if it is first clear what criterion, or objective, is being assessed.

- **The discussion is not based on a systematic understanding and analysis of certification schemes** Once objectives have been clearly identified, it is then essential to establish how, in theory, a certification scheme needs to be designed in order to deliver these objectives.

  This includes two linked, but separate, exercises:

  – firstly, establishing which elements of a certification scheme will influence whether or not the objective will be met

  – secondly, establishing the exact way each of these elements must be designed and implemented to ensure that the objective is delivered.

Since certification is a technical and relatively complex exercise, this analysis needs to be based on an adequate understanding of how certification systems are designed and what impact this has on what they deliver.

In summary, in order to carry out an objective and rigorous assessment of a forest certification scheme it is necessary to:

- identify the objectives which the scheme will need to deliver
- identify which elements of the scheme will influence whether the objectives are met
- establish the way in which each of the identified elements will need to be designed in order to meet the objectives in practice.

Only when these three exercises have been completed will there be an adequate basis to begin assessing actual certification schemes.

This study aims to provide users with the information required to carry out an adequate assessment of forest certification schemes based on the three steps listed above. It does not include an assessment of any actual scheme since, as discussed above, the first stage of the assessment process is to identify the user's objectives and these will differ for different users.

Instead, we provide an introduction to understanding and identifying objectives, followed by a detailed discussion of the elements of a forest certification scheme and the range of ways in which they can be designed. This should allow users to establish for themselves which elements are relevant to their objectives, and the way in which these elements need to be designed. This should

provide an adequate basis to proceed with an assessment of available schemes.

To help users to carry out their own assessments, the final section includes a checklist that can be used as a guide to help identify important elements, decide on appropriate scheme design and link these to the forest certification schemes under assessment.

Box 1.1 **Existing studies comparing forest certification schemes**

Several sets of criteria for assessing certification schemes have been published. In 1997 the Dutch government produced a set of minimum requirements for timber from 'sustainably managed' forests to be eligible for a label on the Dutch market[1]. In 2000 the World Bank-WWF Alliance published a Guidance Note[2] for its target for improved forest management & certification setting out eleven criteria for determining credible forest certification systems.

Four recent reports have proposed criteria sets for global use. GTZ's Forest Certification Project Working Paper 2 presents principles, criteria and indicators for assessing the effectiveness of forest certification systems in contributing to sustainable development[3]. The document summarises and groups relevant hard and soft law, internationally accepted guidelines for standardisation, accreditation and certification, and civil society aspirations expressed by representative and non-governmental organisations.

The Confederation of European Paper Industries (CEPI) Comparative Matrix[4] sets out criteria and indicators for assessing the credibility of international and national forest certification schemes and presents an assessment of schemes operating in 2000. The document does not state the rationale behind the proposed indicators. Important limitations to the Matrix, which CEPI acknowledges and intends to address in a process of continual improvement, include:

- little information on the actual content of forestry performance standards
- little indication of a scheme's relative effectiveness and efficiency in actually promoting sustainable forest management on the ground

A report published by the Australian Department of Agriculture, Fisheries and Forestry[5] proposes critical elements and potential performance measures for the assessment of forest management certification schemes and provides a preliminary assessment of existing comparability and equivalence initiatives and certification schemes against the proposed critical elements. The report was prepared for the Australian Government to assist their strategic planning and, where appropriate, to inform the ongoing international debate by interested parties about the further development of forest certification.

The International Forest Industries Round Table (IFIR) has proposed criteria and indicators for credible SFM standards and certification systems in the context of its proposal for an international mutual recognition framework[6]. As with the CEPI Matrix, the rationale for the proposed criteria and indicators is not stated.

Fern (2001) has produced a comparative analysis of four certification schemes based on a set of criteria recommended by NGOs, governments, academics and the forestry industry.[7]

1 Dutch Ministry of Agriculture, Management and Fisheries. Department of Nature Management (1997). *Timber certification and sustainable forestry*.

2 World Bank – WWF Alliance For Forest Conservation and Sustainable Use (2000). *Guidance Note for Improved Forest Management & Certification Target*.

3 GTZ (2000). Forest Certification Project: Working Paper 2. *Institutional Requirements for Forest Certification: a manual for stakeholders*. Authors: Vallejo and Hauselmann.

4 CEPI (2000). *Comparative Matrix of Forest Certification Schemes*.

5 Australian Department of Agriculture, Fisheries and Forestry (2000). *Establishing comparability and equivalence amongst forest management certification schemes: critical elements for the assessment of schemes*. Authors: Kanovski, Sinclair, Freeman and Bass.

6 International Forest Industry Round Table (2001). *Report of the Working Group on Mutual Recognition between Credible Sustainable Forest Management Standards and Certification Systems*. Edited by Griffiths.

7 Fern (2001) *Behind the Logo: An environmental and social assessment of forest certification schemes*.

2 ESTABLISHING OBJECTIVES

Everyone who uses, or is thinking of using a certification scheme has one or more objectives. Some of these are obvious, some less so. Whenever an assessment of a certification scheme is carried out, it is always against a number of objectives whether this is explicit or not. Problems tend to arise when objectives are not clearly identified and explicit, since it is hard to justify the reasoning underlying an assessment if it is not clear what criteria (or objectives) the assessment was made against.

Therefore, the first step in carrying out an assessment of a forest certification scheme is to establish your objectives. Box 2.1 shows a short and unsystematic list of objectives collected from reports, presentations and discussions with a range of stakeholders. It raises two key issues, each of which is discussed in the sections below:

- Some objectives are more directly related to certification scheme design than others (see Section 2.1)
- Many users will have more than one objective and some objectives may conflict with each other (see Section 2.2).

2.1 Types of objectives

There are two main types of objectives which forest certification scheme users are likely to have:

- those linked directly to certification scheme design
- those with only an indirect link to certification design.

2.1.1 Objectives which link directly to certification scheme design

Those which link directly to the design of certification schemes can be further subdivided into:

- **Objectives which can be directly linked to one or two key aspects of the design of the scheme.**

  Some objectives link very clearly to the way the scheme is designed and so it is relatively easy to

Box 2.1 **Some examples of the objectives of current users of forest certification schemes**

'I need better market access.'

'My customers are demanding certified products.'

'In order to meet our environmental policy I want to be sure that the products we sell are not contributing to bad forestry.'

'My organisation works with wildlife so for me certification must mean conservation of rare species.'

'I need something which is clear and straightforward and of reasonable cost so that I can get it implemented and get on with doing business.'

'The scheme must be accessible to small forest owners.'

'As an ethical investment company/government aid agency, we want confirmation that our investment/aid is resulting in sustainable development.'

'I want recognition and protection of my right to use the forest as my ancestors have used it for generations.'

'The company does not wish to buy timber from illegal sources.'

'I want a simple message to communicate to my ethically-concerned customers.'

'I want to be sure I'm not going to wake up one morning and find my company is the object of an environmental campaign.'

'I run an international company, so to be useful for me certification must be global and business oriented.'

'I want the scheme in which I have invested my time/reputation/money to be the most widely accepted scheme.'

'My organisation needs to be sure that timber harvesting does not harm critical forest ecosystems or their biodiversity.'

establish what elements of the scheme influence them, and the way these elements must be designed in order to deliver the objective.

Two examples in Box 2.1 are the objective of delivering conservation and the objective of avoiding illegal sources. For certification to deliver the objective that there is adequate conservation, it is essential that there is a requirement for conservation in the standard. For the certification scheme to deliver the objective that timber is not from illegal sources there must be an adequate system for tracing material from forest to product.

In both these cases it is relatively straightforward to check whether a candidate scheme includes these elements.

- **Objectives which are more complex and require analysis of several elements of a scheme.**

  In general, the link between the objective and the scheme is more complex and requires a number of elements to be in place in order to ensure that a particular objective is met.

  For example, for a scheme to deliver assurance that products do not come from badly managed forests requires a combination of:

  – an adequate standard to define good forest management

  – an effective certification process which ensures that forests really meet the standard

  – a reliable process for tracking products through to the final claim.

  It will be necessary to analyse the way each candidate certification scheme addresses each of these needs to decide which schemes are adequate.

2.1.2 Objectives which do not link directly to certification scheme design

In addition to objectives which are linked directly to the design of the certification scheme, it is extremely important to be aware that there are also objectives which have no direct link. These are objectives which depend on other users' perceptions.

Although this paper is based on the assumption that the design of a certification scheme is key in determining whether or not user objectives are delivered, this is not always directly the case. This is because some objectives are based on the perceptions or preferences of other users. Two examples of this are:

- **Market access** Certification will only provide market access if the scheme chosen is one which is required by the market-place. Certification on its own, however good the certification scheme chosen, will not provide market access unless the market is interested in products certified under that particular scheme.
- **Managing the risk of negative campaigns** One of the reasons for involvement in forest certification for many companies has been as a means of managing and minimising the risk of negative campaigns by environmental or social pressure groups. As with market access, in this case it is more important to understand which schemes the pressure groups recognise than to carry out a systematic assessment of different schemes.

Although there is no direct link in these cases between the objectives and the design of the scheme, there is likely to be an indirect link since the other users are likely to have their own objectives by which they judge schemes. In this case, it is important to understand what these objectives are, but it is also important to be clear that the delivery of the main objective is not dependent directly on the scheme.

2.2 Conflicting objectives

Most users have a range of objectives they want a scheme to fulfil. This is not a problem in itself since schemes can easily be analysed for delivery of a number of objectives. However, there is a problem when two or more of the desired objectives conflict with each other.

Some common examples of conflicting objectives are:

- **Cost versus just about everything else** This is one of the key issues which needs to be debated since every additional requirement in a scheme has cost implications, and increasing cost in turn has implications for sustainability and equity.
- **Equity of access versus the need for rigorous standards** While it is widely accepted that certification schemes should be accessible to organisations with very limited resources such as small forest enterprises and forests in developing countries, there is also a desire to maintain high standards and a rigorous certification process to ensure that badly-managed forests cannot gain access to certification.
- **Confidentiality versus transparency** An important mechanism for building credibility into a certification system is through requirements for transparency. However, for many companies there is a risk associated with making too much information available since competitors may be able to use this information.

Much of the debate about forest certification schemes over recent years appears to be the result of different approaches to dealing with conflicting objectives. Therefore, it is very important:

- to identify objectives clearly
- to analyse where interactions and conflicts are likely to occur.

Once conflicting objectives have been identified, it is helpful to prioritise. This is done by identifying those objectives which are essential and without which certification is no longer useful, and separating them from objectives where some degree of compromise may be possible without seriously detracting from the outcome.

If it will be necessary to justify a particular assessment of schemes to other parties, it is useful to be clear and explicit about where compromises are made, and why, to allow others to judge whether these decisions are acceptable. This is discussed further in Section 8.

2.3 Defining objectives for a specific user

As discussed above, the first stage in carrying out an assessment of forest certification schemes is to establish the objectives of the user carrying out the assessment. This may be relatively simple if objectives are already documented in policy documents.

For example, the G8 governments have documented policy commitments to the principle of 'Sustainable Development' through Agenda 21 and related initiatives, to multi-stakeholder consensus-based processes for developing forest policy and standards as agreed at the recent UNFF Session and to opposing illegal logging. Therefore, an analysis of certification schemes carried out by a G8 government might be based on the objectives that the scheme must:

- contribute to and support sustainable development[1]
- require multi-stakeholder, consensus-based standard setting
- provide a mechanism for ensuring exclusion of timber from illegal sources.

Similarly, a company or industry association carrying out an assessment is likely to have a number of objectives which are more or less defined through reports, policy documents or commitments to shareholders.

It may be more difficult to establish objectives if no prior thought has been given to the issue. In this case, it will be necessary for the organisation to spend time deciding what its objectives are. This is an essential prerequisite for analysing certification schemes. It is also likely to be a useful internal clarification process and so worthwhile doing.

[1] This approach has already been taken by the German agency GTZ (GTZ, 2000)

3 UNDERSTANDING CERTIFICATION SCHEMES

As discussed in Section 1, once objectives have been identified, the next stages are to establish:

- which components of a certification scheme have an influence on whether or not the objectives are delivered, and
- how each identified components needs to be designed in order to ensure that the objective is delivered in practise.

This process presupposes a good understanding of the components of a certification scheme and how each of these can be designed. Therefore, this section together with the four that follow provide a detailed analysis of certification schemes beginning with a general overview in this section and followed by a more detailed examination of the design of each of the components in the following sections.

3.1 The four basic elements of a certification and labelling scheme

All certification schemes, including those for forestry, are usually made up of three elements:

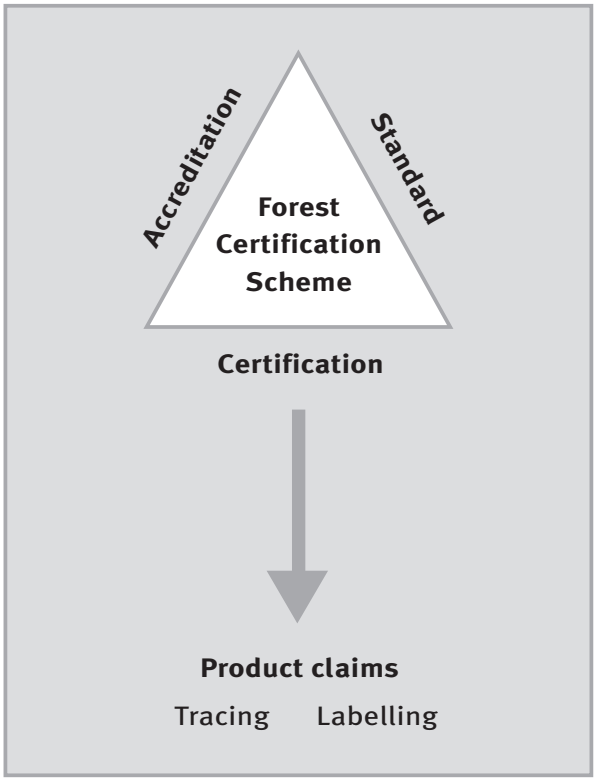
- **Standards** These are documents which set out the requirements which must be met by the forest manager and against which certification assessments are made.
- **Certification** This is the process of establishing whether or not the standard has been met.
- **Accreditation** This is the mechanism for ensuring that the organisations which undertake certification are competent and produce credible results, sometimes described as 'certifying the certifiers'.

To emphasise the importance of each of these elements to the certification scheme as a whole, they are often shown schematically as the three sides of a triangle which represents the certification scheme, as shown in Figure 3.1.

In addition, if the scheme is going to be used as a basis for making product claims, then a fourth element – **mechanisms for controlling the claims** – also needs to be in place. Mechanisms will be required for:

- **Tracing** The material may go through many production processes between the forest and the final product and there must be a mechanism for tracing it from the certified forest to the final product. This is to provide certainty that the product about which the claim is being made really is made from material from a certified forest.
- **Labelling** It is essential to ensure that labels are clear, credible and honest. This generally requires a set of rules to be followed by those labelling products.

Figure 3.1 **The essential elements of a certification scheme**



3.2 Why is understanding the detail so important?

As discussed above, each of the four elements of a certification scheme is made up of a number of separate components. The detail of the way in which these components are designed determines what the scheme delivers. Several schemes may be based on exactly the same four elements (standards, certification, accreditation and product claims), and each of these elements may consist of the same basic components, but if the design of the components differs between schemes, then what is actually delivered will probably also be very different.

For example, 'consultation' often appears as one of the components which users think is an important part of the certification process element. However, if an assessment of two schemes is carried out based on a requirement for 'consultation as part of the certification process' this will not differentiate between:

- **Scheme A** which requires certification bodies to contact the forest department and the local state government to inform them that the certification assessment is underway and seek comments, and
- **Scheme B** which requires certification bodies to inform a range of local and national organisations including government, academics, industry, NGOs and community groups and to hold a series of public meetings to allow anyone interested to have an input.

Yet, it is clear these two approaches will deliver very different outcomes in terms of the objectives they potentially meet. The failure to differentiate between them arises not from a lack of difference, but from a lack of precision in defining exactly what the requirements are for the 'consultation' component.

To overcome this problem, which has been a weakness in some of the analyses carried out to date, it is necessary to be very precise about what is required from each component of a certification scheme. This in turn requires a reasonably detailed understanding of the way in which certification schemes work.

Sections 4, 5, 6 and 7 take each of the elements of a certification scheme – standards, the certification process, accreditation and claims – and analyses in each case what the constituent components are, how they can be designed and the consequences of different designs on the objectives delivered.

3.3 Providing a baseline – the importance of ISO guidelines

Forest certification is a relative newcomer to the world of standards and certification, but hundreds of other schemes already exist in many other sectors. One of the most important organisations in this world of certification is the International Organisation for Standardisation (ISO), an independent body based in Geneva.

As well as co-ordinating and managing the development of hundreds of international standards for different industry sectors, ISO has also produced a number of Guides for:

- standard development and use
- certification bodies and certification
- accreditation
- claims.

These ISO Guides are based on several decades of experience and usually provide excellent baseline requirements (see Box 3.1 for a list of the main Guides). ISO Guides are also important because ISO works with the World Trade Organisation (WTO) to try to ensure that certification meets WTO requirements and does not become a technical barrier to trade (TBT).

In general, certification schemes should follow ISO guidance for each of the four elements. This guidance will be extremely helpful in outlining the basic requirements for credibility and efficiency. However, it is also important to remember that the ISO Guides are general guidelines, developed to be applicable in the widest possible way. They do not always go into sufficient detail to provide all

necessary guidance for individual schemes, nor do they cover all of the issues which are important in a specific sector, such as forestry.

Box 3.1 **ISO Guides on setting up and running certification schemes**

ISO Guide 59: 1994 *Code of Good Practice for Standardisation.*

ISO Guide 61: 1996 (EN 45010: 1998) *General requirements for assessment and accreditation of certification/registration bodies.*

ISO Guide 62: 1996 (EN 45012: 1998) *General requirements for bodies operating assessment and certification/registration of quality systems.*

ISO Guide 65: 1996 (EN 45011: 1998) *General requirements for bodies operating product certification systems.*

ISO 14012: 1996 (EN 14012: 1996) *Guidelines for environmental auditing – Qualification criteria for environmental auditors.*

ISO 14020: 2000. *Environmental labels and declarations – General principles.*

ISO 14021: 1999. *Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling).*

ISO 14024: 1999 *Environmental labels and declarations – Type I environmental labelling – Principles and procedures*

ISO/TR 14025: 2000 *Environmental labels and declarations – Type III environmental declarations*

4 STANDARDS

Standards provide the basis for the quality of any certification scheme and all claims which are made relate back to the standard. The ISO definition of a standard is:

'*a document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context*'. (ISO/IEC Guide 2:1996, Definition 3.2).

For a forest certification scheme, the standard defines the level of forest management which must be achieved. A variety of terms are used to describe this, including 'responsible forest stewardship', 'good practice' and 'sustainable forest management[2]'.

ISO has developed a number of guidelines for standard-setting, in particular Guide 59: Code of Good Practice for Standardisation (see Box 4.1). This provides a widely accepted basis for the minimum requirements expected of a certification scheme.

Another important factor to consider in standard development and content are the requirements of the World Trade Organisation (WTO) which formulates international rules on trade and defines what constitutes a technical barrier to trade (TBT). Guide 59 is currently being being reviewed to try to ensure that it is compliant with WTO rules on TBTs. In the interim, anyone developing a certification scheme needs to be aware of WTO requirements (GTZ, 2000).

Key factor In assessing a standard it is important to establish that both process and content meet ISO Guidelines. It may also be useful to be aware of WTO requirements.

[2] There is a problem with the use of the term 'sustainable' in the name of a forest certification standard where it is planned to link the name to any claims. This is because of ISO guidance which states 'At this time there are no definitive methods for measuring sustainability or confirming its accomplishment. Therefore, no claim of sustainability shall be made.' (ISO 14021, Clause 5.6). Therefore, while it may be acceptable to use the term 'Sustainable Forest Management' in discussions about the standard, this phrase should not be used in any claims made relating to certification against the standard.

Box 4.1 **ISO guidelines for standard development**

Some of the main requirements of ISO Guide 59:

Procedures Written procedures based on consensus principles should govern the methods used for standards development. Clause 4.1. (See Section 4.1.2 for a discussion of what 'consensus' means in practice).

Transparency The procedures of the standardising body shall be available to interested parties upon request (Clause 4.1)

Complaints and appeals The procedures of the standardising body should contain identifiable, realistic and readily available appeal mechanisms for the impartial handling of any substantive and procedural complaints (Clause 4.2)

Approval Formal approval of standards should be based on evidence of consensus (Clause 4.5).

Advancement of international trade Standards shall not be written so as to allow them to mislead consumers and other users of a product, process or service addressed by this standard (Clause 5.4)

Participation Participation in standardisation processes at all levels shall be accessible to materially and directly interested persons and organisations within a coherent process (Clause 6.1)

(ISO/IEC Guide 59: 1994, Code of Good Practice for Standardisation)

Hierarchical framework In addition to the above, a key requirement of WTO is for a hierarchical framework between international, regional and national standards. The use of a hierarchical framework for forestry standards is comprehensively addressed in the 1997 Tropenbos Discussion Paper (Lammerts van Bueren, 1997).

Though ISO guidelines provide a good basis for all standards, they are unlikely to be sufficient on their own for forest certification standards, particularly performance standards. This is because, as a result of the issues discussed below, performance standards for forests are unusually complicated to develop and define in comparison to other standards due to the following factors:

- **Incomplete information** on which to base a forestry standard. Most standards are based on precise factual information:

  For example, a standard specifying the minimum strength of a motorcycle helmet is based on scientific and technical data which can be used to precisely define what is strong enough to be safe.

  However, we do not have all the necessary information to understand and model in detail the way in which forests function, nor their response to the disturbances inherent in management. There are many gaps in the information where it is incomplete or totally lacking. Therefore, we have to base any standard on the best available information combined with decisions about what to do when there are uncertainties.

- **Conflicting requirements** definitions of 'sustainable forest management' vary, but all agree on the basic premise that it involves a balance of economic, environmental and social requirements. However, it is often impossible to achieve all of these simultaneously and sometimes conflicts arise.

  For example, it is not possible to simultaneously fulfil an economic desire to fell trees and an environmental desire to leave an area as pristine forest. Similarly, it is not possible to simultaneously protect wildlife for environmental purposes and meet a social requirement to allow unlimited hunting.

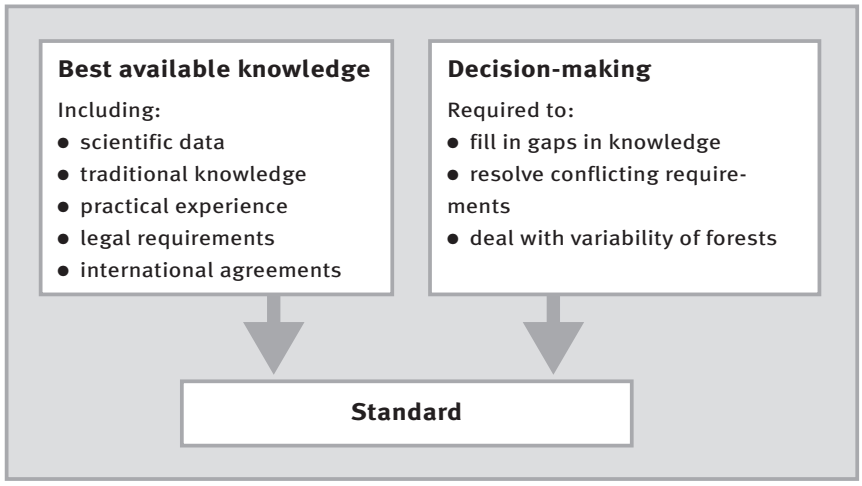
  Therefore, decisions have to be made about how to deal with conflicting requirements.

- **Variability** Forest standards have to deal with the very high degree of variability which exists between forests around the world. Most standards are equally applicable anywhere.

  For example, the strength required of a motorcycle helmet to ensure that it protects anyone wearing it is the same anywhere and therefore a standard for motorcycle helmet safety can potentially be applied in any country.

  Forests, however, vary enormously in their biology, climates, soils and their social and economic context. As a result, forest certification schemes need to include mechanisms to

Figure 4.1 **Inputs into the development of a forest management standard**



ensure that the standard used is appropriate to the range of forests sizes and types to which schemes can be applied.

For these reasons, as shown in Figure 4.1, all forest standards have to be developed using a combination of:

- **best available scientific and technical knowledge** of forests and the way they function and are affected by management
- **decision-making** to resolve how to address any gaps identified and to decide how to balance the different demands made on forests.

The way that these two are balanced, and the way in which the decision-making is done are likely to have a significant influence on the final standard. As a result, the process adopted to develop the standard has a significant influence on the final content.

Since the ISO guidelines for standards development were written based on experience with less complex standards, they provide only limited guidance on how to deal with this complex situation and, while providing an important basis, they are not sufficient to provide complete guidance.

4.1 Standards development process

As discussed above, forest standards have to be developed by combining the best available scientific and technical knowledge with decision making to fill gaps and resolve conflicts. Therefore, the process by which the standard is developed is especially important since decisions on how gaps in information will be addressed and the compromises made between conflicting requirements will determine the content of the final standard. For this reason, two elements of the standard-setting process are critical:

- Who is involved in developing the standard?
- How does the standard-setting process work, and in particular, how are decisions made?

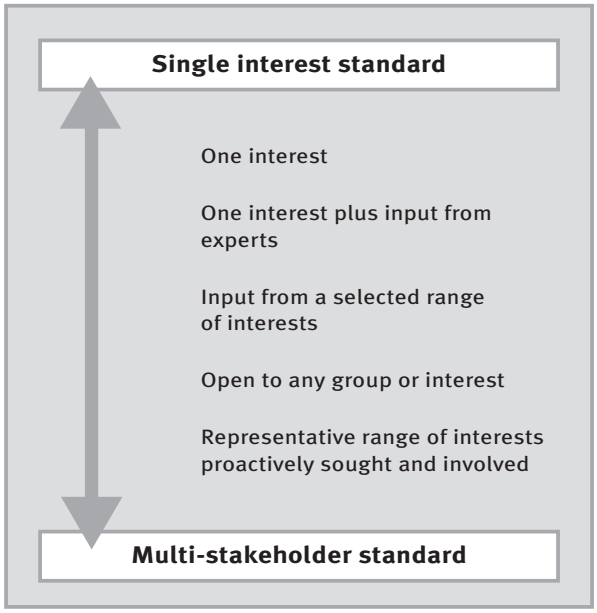
The answer to these two questions will be critical in establishing the type of standard which is developed.

4.1.1 Who is involved in developing the standard?

Standards are usually developed by a group of people referred to as a standard-setting group or technical committee. The membership of this group can range from a few selected experts working in isolation to a group composed of all interested and affected parties as illustrated in Figure 4.2.

Experts generally provide the input of 'best available knowledge' into the standard. The wider the range of experts, the greater the certainty that all relevant information will be fed into the process. Thus, for a forest management standard, relevant

Figure 4.2 **Interests involved in the standard-setting process**



experts may include a wide range of specialists including foresters, ecologists and wildlife managers, indigenous people, local government and government negotiators familiar with inter-governmental agreements on forestry. The important point is that the input must ensure all relevant scientific, technical and empirical information is fed into the process.

The 'decision-making' element of the standard will be provided by whoever is in the group or has input into the group. The wider the range of people and interests involved, the wider the input into any decisions made. Input into the decision-making process will often come from people or organisations with social and political interest in the standard in addition to the technical experts.

It is important to note that there is a significant difference between a process which is 'open to all interest groups' and one which actually involves all interest groups. In many situations important groups such as indigenous people or rural communities may be 'invited' but might not have the resources to travel to meetings or a representative able to understand and input to the process unless support is actively provided. The final standard reflects only the interests which were actually involved, and not those who were invited. Therefore, when assessing the process for developing the standard, it is important to check what the minimum requirements are for actual involvement of experts and interested parties.

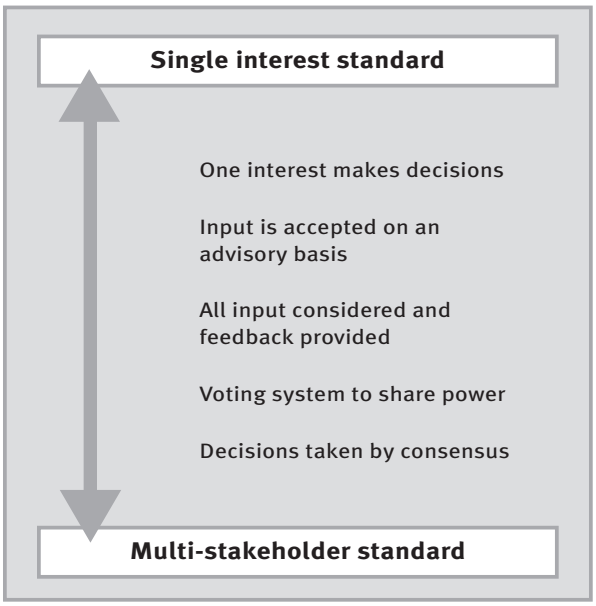
Key factor There should be defined requirements for the composition of the standard-setting group which will ensure appropriate input of both best available knowledge and decision-making.

4.1.2 How does the standard-setting group work?

It is not only the people involved in the standard-setting group who will affect the final content of the standard, but also the way in which the group works. In particular, the process by which decisions are made is of great importance in determining the content of the standard. This can range from decisions being taken by a single person or interest through to decision-making based on consensus as shown in Figure 4.3.

The more the decision-making process is dominated by a single interest, the more the final standard will be a reflection of a particular view of good forest management.

Figure 4.3 **Decision-making in the standard-setting process**



Standard-setting processes dominated by the decisions of a single interest tend to be limited to technical standards (e.g. the standard for calibration of a particular machine might be developed entirely by the company manufacturing the machine).

Development of a standard by a single group accepting input on an advisory basis has been more common in forestry, for example, governments have often developed national standards which are widely circulated for review, with comments sometimes being incorporated and sometimes not. When this is done without providing information on what was accepted or rejected and why, it leaves a lot of power with those producing the standard. This is reduced if comments are treated systematically and a justification provided for the inclusion or exclusion of each.

Moving towards greater sharing of power, standard-setting groups can use some type of voting system. The most simple approach is to use a 'one-interest-one-vote' approach. This has the advantage of simplicity, but the disadvantage that it is strongly affected by the precise make-up of the voting group. A way of overcoming this is to split voting power between different interests to provide balance between interest groups.

Finally, standard-setting groups can work on the basis of consensus. A genuine consensus-based approach means that a decision can only be made if there is no significant and sustained objection by a member of the group. This means that, effectively, a decision to work by consensus gives each member of the group the power of veto since a single person or organisation registering disagreement (provided that it is serious and sustained) is sufficient to prevent progress.

Although ISO recognises that '*consensus, which requires the resolution of substantial objections, is an essential procedural principle and a necessary condition for the preparation of international standards that will be widely accepted and used*' (ISO 1995), there has sometimes been a suggestion that a 2/3 majority vote is equivalent to consensus. Elsewhere, the term 'consensus' or 'broad consensus' has been used to describe a situation of majority decision-making. However, these situations are better described as a form of voting than as consensus. This paper uses the word consensus to mean 'resolution of sustained and serious objection' throughout.

Key factor There should be defined requirements for the process used by the standard-setting team to reach decisions which will ensure that the way gaps in information are addressed and conflicting requirements are balanced is appropriate.

4.2 Content of standards

When assessing the content of standards, there are a number of issues to consider. In particular:

- **Types of standard** There are two types of standards, performance and system, each of which has a different role.
- **Performance requirements** The requirements contained in the standard are crucial in establishing what the certification scheme actually delivers.
- **Consultation** Requirements for consultation with external stakeholders are seen ever more frequently in standards for forestry.
- **Wording** Standards are technical documents and need to be written in a particular way.
- **Applicability** Forests are enormously variable in type, location and size, so forest standards need to be applicable to all the forest types to which the certification scheme is intended to apply.

4.2.1 Types of standard: system and performance

There are two types of standard which can be applied to forest management – system standards and performance standards.

4.2.1.1 **System standards** (also known as process standards)

System standards specify the management systems which must be in place within an organisation to ensure that they are managing quality, environment or even social performance consistently.

Box 4.2 **Comparison of what system and performance standards deliver**

	System standard	Performance standard
Guaranteed minimum level of performance in the forest	No	Yes
Recognition of ongoing improvements in management	Yes	No
Management framework	Yes	No
Application to all forest types without being adapted	Yes[1]	No
Product label	No	Yes[1]

[1] In practice, the bureaucratic requirements of system standards can be a serious obstacle for small forest enterprises and for forest owners and managers who are not literate.

Thus, the standard is used to assess the organisation itself rather than the outcomes or results of management.

System standards can be very powerful tools for helping organisations to systematically understand and improve their performance. However, they do not specify any minimum level of performance which must be achieved. Instead they require forest organisations to set their own performance targets and then use the management system to ensure that they reach them.

They are easily adapted to forests of all types and sizes since they specify generic systems and not specific performance requirements. In addition, certification to a system standard provides recognition of the commitment to improve while the improvements in performance are still being achieved.

However, the lack of defined performance requirements means that two forest companies both certified to the same system standard could achieve very different results in the forest. As a result, since system standards do not provide any 'guarantee of product quality' it is not normal to associate a product label with this type of standard. Relevant examples include ISO 9000 and ISO 14001.

4.2.1.2 Performance standards

Performance standards specify the level of performance or results which must be achieved in a forest, but do not specify how this should be done. Therefore, they do not require an organisation to put in place any particular management system, but they do clearly specify the minimum performance which must be achieved in a certified forest. Since performance standards provide a 'guarantee of quality' it is normal to use them as a basis for a product label.

A comparison of the two types of standard, summarised in Box 4.2, shows that they:

- deliver totally different benefits
- are potentially complementary but cannot substitute for each other.

In practice, most standards applied to forestry are a combination of systems and performance requirements. The exception is ISO 14001, a generic environmental management system standard not specific to forestry, which is a true system standard.

Standards developed specifically for forestry range from the Canadian Standards Association (CSA) SFM standard which is predominantly a system standard, but includes some guidance on performance areas where objectives and targets must be set, to the Forest Stewardship Council (FSC) stan-

dard which consists predominantly of performance requirements but also recognises the importance of some systems elements (e.g. management planning and monitoring) and requires that these are in place.

Key factor The choice of a system or performance standard will depend on what the certification scheme is expected to deliver: a framework for management or a guaranteed minimum level of performance or a combination of both.

4.2.2 Performance requirements

The requirements which the standard contains are fundamental in determining what the certification scheme delivers. For system standards there is considerable international agreement on what these requirements should be, with ISO 14001 providing a working model.

For performance standards it is less clear. At an international level, there have been a number of processes which have made significant progress in identifying the range of issues which must be considered in defining good forest management and which therefore need to be addressed in a performance standard.

This process can be traced back to the discussion of 'sustainable development' in the Brundtland report (World Commission on Environment and Development, 1987) but has been greatly developed subsequently through UNCED and related processes (Grayson, 1995), together with work by the International Tropical Timber Organisation (ITTO). Several analyses of these have been done (Nussbaum *et al*, 1995, Higman *et al*, 1999) and show that there is considerable agreement about what the relevant issues are.

However, although there is considerable overlap in international processes, there are also some areas of difference and disagreement. In addition, the requirements are often very general or designed for monitoring at a national level rather than for implementation at the forest management unit, leaving scope for widely differing interpretations. As a result there is no single international set of detailed requirements for good forest management with universal acceptance. However, it is possible to put together a list (shown in Box 4.3) which summarises the main issues considered relevant by one or more of the international processes.

There are three approaches which can be used to overcome the lack of an internationally agreed set of criteria for good forest management:

- The first approach is to develop a definition of good forest management in the form of a set of requirements. These need to be precise enough to serve as a basis for assessing whether the requirements contained in a standard are adequate. This is likely to be one of the most challenging aspects of developing an assessment methodology and, like the development of standards themselves, may benefit from being carried out by a representative group of stakeholders.
- The second approach is to assess the process used to develop the standard, as discussed in Section 4.1. This approach is based on the assumption that an adequate process will produce an adequate standard. This method is most likely to be successful if a multistakeholder, consensus-based standard-setting process is being used since the resulting definition of good forest management provided by the standard will reflect the consensus views of all stakeholders justifying the absence of a predefined definition by those assessing the scheme.
- The third approach is to use a combination of the first two approaches defining both the requirements for good forest management and the process for developing standards. This third approach is particularly useful for working internationally where, as discussed in Section 4.2.5, some type of process is needed for interpreting standards at a national or local level.

This leads on to a second critical element of standards, which is the need to ensure that they are implementable and auditable at the field level. This is discussed further in Section 4.2.4 and 4.2.5.

Key factor The precise requirements of a performance standard are extremely important in determining what a forest certification system delivers. The broad range of issues which should be covered can be found in a number of international processes, but there is no single internationally-agreed set of criteria with broad support against which standards can be assessed. There are three ways of overcoming this difficulty in order to assess standards:

- develop a detailed set of requirements to which the standards used by candidate schemes can be compared
- base the assessment on the process used to formulate the standard rather than the standard itself in which case the degree of participation in this process becomes critical
- use a combination of defined requirements and assessment of the standard-setting process.

4.2.3 Participation and consultation

One requirement which is often new for forest managers, but is increasingly seen as an essential component of forest standards, is participation and consultation. Several of the international processes which have defined the scope of a forest standard outlined in Box 4.3 have specifically addressed this issue.

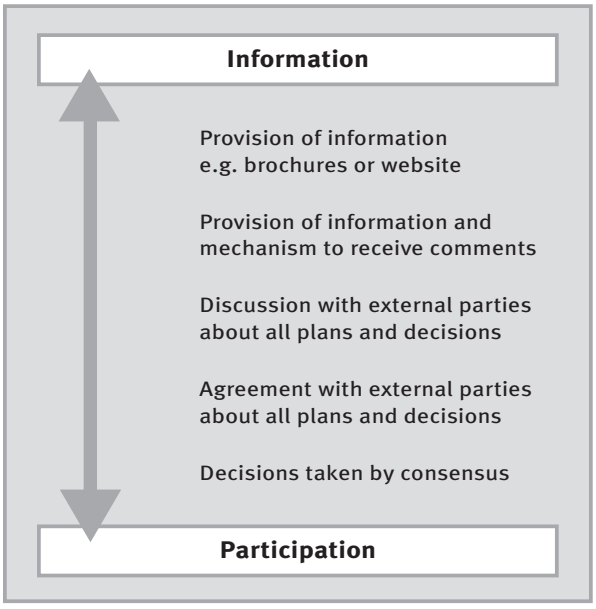
Requiring ways of involving local communities and other stakeholders in forest management planning and decision-making through some form of consultation or participation has a number of benefits:

- it decreases the likelihood that the forest management will be unacceptable to external parties or have a negative impact on them
- it provides a basis for managing the social impacts of forest management
- it provides input into the process of balancing conflicting social, economic and environmental needs
- it increases equity and empowerment, thus contributing to sustainable development.

The range of ways an organisation can undertake consultation and/or encourage participation is summarised in Figure 4.4 and discussed further in Box 5.5. The most simple approach is simply to provide external parties with information on the organisation. This is a very common approach and many forestry companies have leaflets, brochures or (increasingly) websites with information about themselves.

Consultation involves going beyond this and soliciting feedback on information provided and plans being made. This can range from an *ad hoc* willingness to receive comments through to a systematic approach to receiving and dealing with comments received. The greater the focus on responding to comments and incorporating ideas received into management planning and operations, the nearer the process moves to participation. Participation requires a process for actively involving external parties in the forest management process. In practice, this is usually mainly at the planning stage since external parties are less likely to have the skills needed for detailed operational concerns.

Figure 4.4 **Information, consultation and participation**



4.2.4 How is the standard written?

ISO guidance on the structure and drafting of standards is set out in ISO/IEC Directives, Part 3: *Rules for the Structure and Drafting of International Standards*. The guidance is useful, but is also specific to standards that are intended to become part of the ISO family of standards as a result of which much of it does not apply of necessity to the development of other standards. Despite this, there is general agreement that standards are supposed to be precise technical documents which can be unambiguously understood, implemented and audited against.

Precise, accurate and unambiguous As discussed in Section 5, the job of an assessor is to collect evidence to confirm whether or not the standard

Box 4.3 **Issues relevant to a forest management standard**

Since the publication of the Brundtland report (World Commission on Environment and Development, 1987) there has wide acceptance of the importance of sustainable development. While no absolute definition of 'sustainable development' exists, it is accepted that it must deliver intergenerational equity ('*meeting the needs of the present without compromising the ability of future generations to meet their own needs*') expressed by the Brundtland Report and the need to balance economic, environmental and social needs as discussed at the 1992 Earth Summit and in the documents it produced.

As a result, international governmental and standards-type initiatives and debates about 'sustainable forest management' have drawn on these concepts, and added more forest-specific detail which provide a useful framework for the development of forest management standards. Many of the relevant documents (eg Agenda 21, The Forest Principles and the Pan-European and Montreal Processes) are not designed for use directly as forest management standards at the management unit level but have been developed to assist with national level planning and monitoring. However, they do provide a very useful guide to the issues that should be considered in such standards. Other documents such as the ITTO Criteria and Guidelines and the Forest Stewardship Council Principles and Criteria are designed to apply directly to forests at the management unit level.

An analysis of the various relevant initiatives and processes indicates a substantial overlap between initiatives, as well as some differences. Below is a summary of the main issues that are included in one or more of the international debates or agreement on sustainable forest management.

Technical and economic

- Legal compliance
- Control of illegal activities
- Economic viability
- Management plan
- Operating procedures
- Silvicultural guidelines
- Monitoring and review
- Training and supervision
- Tenure and use rights
- Sustained yield

Social

- Health and safety
- Workers' rights to organise and to at least minimum wage
- Capacity building among local workers
- Assessment of social impacts
- Benefits for local communities
- Rights of indigenous people
- Complaints and dispute resolution
- Participation and consultation

Environmental

- Assessment of environmental impacts
- Protection of soil, water, air and forest
- Protection of biodiversity including
  - genetic diversity,
  - species diversity (protection of rare, threatened and endangered species)
  - ecosystem diversity (protected areas and rehabilitation)
- Control of pollution including chemicals and waste
- Control of biological agents including exotic species, biological control agents and GMOs

is being met. Clearly, if the standard is unclear or ambiguous it will be much more difficult for the assessor to carry out their job in a repeatable and objective way. It will also be much more difficult for a forest manager to implement the standard, potentially resulting in confusion and wasted resources.

Flexible Although standards need to be clear, there is also a need to build in some flexibility to deal with intrinsic variation between forests and forest managers. As discussed in the introduction, forests vary in their ecology, climate, geography and size while forest managers differ in their approach to management and the social, cultural and economic environments within which they work. Therefore, forest management standards must allow for the range of ways in which forests can be adequate managed.

This raises the problem of inconsistent interpretation by certification bodies, which needs to be considered and, wherever possible addressed. This can be done to some extent by the provision of guidance notes which is normal practice for ISO standards. However, guidance notes would have to be extremely detailed to deal with the full range of variation found in forests. An alternative approach, based on designing standards for specific forest types, is discussed in the next section.

Key factor It is important to ensure that standards are clearly and precisely written, and that where there is a need to allow flexibility, adequate guidance is provided to certification bodies.

4.2.5 Applicability

As discussed above, forest standards need to be precise and detailed to provide a sound basis for auditing. At the same time, the huge variation in forest size, types and location means that it is not possible to write a single standard with this level of detail which can be applied to all forests. There are a number of ways of dealing with this:

- **The scope of the standard restricted to a single forest type** This allows for a very specific and detailed standard which is usually easy to understand for those implementing the standard, and easy to audit for the certification body. For example, a standard limited to poplar plantations in the UK, or to natural forest management in Indonesia can be extremely detailed since it will be applied to only one type of forest in one cultural context. A scheme based on such a standard is only applicable to that forest type.
- **The scope of the standard covers a limited range of forest types by including guidance on interpretation** These standards are sufficiently detailed to audit against, but still include some requirements which have to be interpreted as appropriate to the specific forest being certified. This is generally the approach taken for national standards in countries with a limited range of forest types, for example the UK Woodland Assurance Scheme standard (UKWAS Steering Group, 2000). In countries with a wider variety of forest types more than one 'national' standard may be needed because the variation is too great for a single standard, for example in Brazil where forest ranges from temperate plantation in the south to tropical rainforest in the north.
- **Design a system to produce a linked set of standards which can be applied to any forest type** There are two ways in which this can be done:
  - The single system approach where a generic international standard is defined at a level which is applicable to any forest type, together with guidelines for the development and approval of more detailed national or regional interpretations. If this approach is being used, it is necessary to assess the adequacy of both the international standard and the process used to make national or regional interpretations.
  - The mutual recognition approach where national or regional standards are developed independently and then a system defined for assessing whether or not the standards are compatible. In this case, the system used to carry out the mutual recognition assessments will be very important, in particular that there are clearly defined requirements which

ensure that all the participating schemes meet an acceptable minimum standard.

Either of these approaches can, in theory provide an effective way of overcoming the conflicting needs for standards which are detailed enough to implement and audit against while at the same time applicable to a wide range of forest types.

Any scheme which aims to create an international certification system should seek to ensure that WTO guidelines are met and that the resulting scheme will not create unnecessary barriers to trade.

Key factor Before assessing a scheme, it is important to be clear about what type and area of forest it applies to, and that an appropriate mechanism is in place to control this.

4.3 Small forest enterprises and standards

A number of analyses have shown that standards can be a significant barrier to small forest enterprises (SFEs) in obtaining certification (Nussbaum et al, 2001, Higman et al, 2002).

The main problems are a result of:

- **Length and language of the standards** Standards are often lengthy documents. Requirements are often phrased in complex technical language. It may not be clear exactly what is being required and some interpretation may be needed before the requirement can be implemented. Some requirements are repeated at different points in the standards, adding to the length. The length and language of the standards create a disincentive to anyone with limited time available. It also excludes people without a formal forestry training and, even more, people with low literacy levels. Owners of SFEs, who are rarely professional foresters, particularly in developing countries, and who combine forest management with other work, are more likely to fall into these categories than professional managers of medium-large enterprises. The length and language of the standard therefore disproportionately affects SFEs
- **Some requirements are not relevant** to all situations but add length and confusion to the standard. This is inevitable since standards are generally developed to apply to a range of situations, but makes the document more difficult for an SFE.
- **Some requirements are inappropriate or not feasible** for a SFE to implement in a small forest area. These may be requirements which relate to the landscape-level values of the forest which cannot be fulfilled individually at a small scale, or requirements for detailed planning and documentation by the SFE which adds considerably to the management burden, but does little to improve forest management when applied at the small scale.

If these issues are not addressed then a scheme may be discriminating against SFEs. To avoid this, it is important that there are mechanisms within the scheme to ensure that any barriers are minimised. For example:

- guidance notes specifically for SFEs on how to interpret the standard
- an appropriately simplified version of the standard (but maintaining the same level of performance) specifically for implementation by SFEs
- some type of group certification scheme which allows SFEs access to a version of the standard designed for their forest type and size.

Key factor Is there a mechanism to ensure that the standard does not act as a barrier to certification for SFEs?

5 CERTIFICATION

Certification is the process of confirming that the standard has been met and, for the purposes of discussion, can be considered as two linked activities (see Figure 5.1):

- the technical process of establishing and confirming that the standard has been met;
- the more complex process of ensuring confidence in the decision which is made.

In practice, these two activities are closely linked, and both form an integral part of the certification process, the main elements of which are likely to be similar for any certification schemes and are described in Box 5.1. However, for the purpose of discussing the requirements of an adequate certification scheme, it is useful to look first at the technical aspects and then to link these to the parts of the process which provide credibility and confidence.

5.1 Establishing that the standard has been met

The effectiveness of the process of establishing whether or not the standard has been met depends on three things:

- The people and organisations responsible for managing and implementing the process.
- The methodology used to carry out the process.
- How a decision is made on compliance with the standard.

Each of these is discussed below.

5.1.1 People and organisations responsible for certification

There are two components to the issue of who carries out certification.

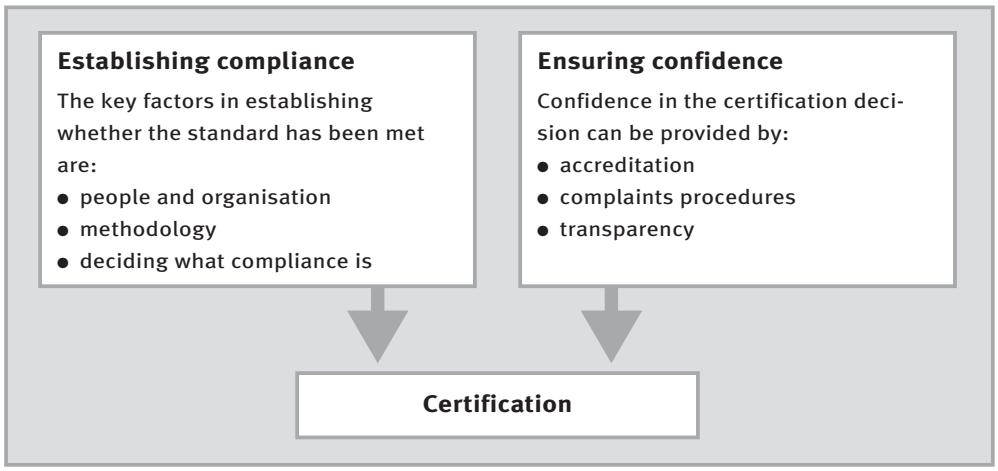
- Firstly, what type of organisation is responsible overall for running the process and making the final decision.
- Secondly, who is involved in collecting the information on which the certification decision is made. Each of these is discussed below.

5.1.1.1 The type of organisation doing the certification

There are three types of assessment against a standard:

- First party assessments are those carried out by an organisation on itself and are often referred to as internal audits.
- Second party assessments are carried out by one organisation on another with which it has a relationship of some sort. A common example is a supplier audit.
- Third party assessments are carried out by an organisation which is completely independent of

Figure 5.1 **The components of certification**



Box 5.1 **The certification process**

Application and proposal Certification is voluntary, so the first stage is that the forest manager or management organisation interested in having a forest assessed applies to a certification body, and the certification body prepares a proposal.

Pre-assessment or scoping It is normal that the certification body makes a brief preliminary visit to the certification applicant with three main objectives:

- to ensure that the applicant understands the requirements of certification
- to plan for the main assessment
- to identify any major gaps between the applicant's current management and the level required by the standard.

Closing gaps The applicant addresses any gaps between current management and that required for certification until they are confident that their management is in compliance with the standard

Main assessment This assessment provides the main opportunity to establish that the standard is (or is not) being met and is discussed in detail in Section 5.1. It is usually carried out by an assessment team whose job it is to collect objective evidence which demonstrates whether or not the standard is being met.

The collection of objective evidence involves a combination of document review, field visits and consultation.

When non-compliances with the standard are found, this normally results in Corrective Action Requests (CARs) which must be addressed by the applicant to bring the forest (or management system if it is a system standard) into full compliance with the standard.

Reporting and certification decision The assessment team do not make a decision about whether or not the forest should be certified. Following the assessment, the team produces a report setting out the findings and making a certification recommendation

The certification decision is made based on the report. This should always be done by a panel or committee which were not directly involved in the assessment to reduce the risk of corruption. The report can be reviewed by specialists (peer reviewers) prior to going to the final decision-making committee to get some independent feedback on the process and the results.

The report must be made available to the accreditation body. Some or all of the report can be made publicly available to allow stakeholders access to information on the certification.

Surveillance A critical part of the certification process is the ongoing surveillance of certified forests. Surveillance visits serve two purposes:

- Ongoing compliance with the standard is checked to ensure that performance does not fall below the required level.
- Where improvements have been required through CARs, progress is monitored.

the organisation being assessed called a certification body.

First and second party audits are very useful for internal or company to company communication. Many organisations have an internal audit programme and indeed, it is a requirement of system standards such as ISO 9000 and 14001.

However, clearly neither first nor second party assessments are independent and so any certification scheme which requires independent verification of compliance with the standard must use third party assessments by independent and professional organisations. Such organisations are known as certification bodies.

There are a number of ISO documents which set out the way in which a certification body must be set up and run. These are summarised in Box 5.2. As with standard development, these rules have been developed based on many years of experience and should provide the foundation for any certification body and certification process.

The quality of the certification body is so critical to both the technical success and the credibility of the whole process that most schemes also require 'certification of the certifiers' through a process called accreditation. This is discussed in Section 6.

Key factor There are three main issues to consider when looking at who is responsible for the certification process. Firstly, does the scheme require certification to be undertaken by an independent, third party certification body or is first or second party assessment accepted. Secondly, is there a requirement for the certification body to meet ISO guidelines. Finally, is there a requirement for accreditation (this is discussed in detail in Section 6).

5.1.1.2 The assessment team

Although the assessment team do not usually make the final certification decision (see Section 5.1.3 below) they are responsible for most of the technical process of collecting information to establish compliance with the standard. Therefore, the competence of the team is fundamental to the effectiveness of the certification process. This importance is reflected by ISO which provides specific guidelines for members of assessment teams (see Box 5.3). These guidelines are very

Box 5.2 **ISO requirements for certification bodies (ISO Guides 62 and 65)**

There are two ISO Guides which set out the requirements for certification bodies operating certification schemes. Guide 62 focuses on requirements for those working with system standards and Guide 65 for those working with product (or performance) standards. Both are relevant to forestry and some of the main requirements are summarised below:

Organisation

General requirements including: non-discrimination towards certification applicants, no impediments or inhibitions to access to certification, services to be made available to all applicants, no undue financial or other conditions (Guide 62 Clause 2.1.1, Guide 65 Clause 4.1)

Detailed requirements including: impartiality, separation of responsibility for certification decision and certification evaluation, freedom from commercial or financial pressure that may influence decisions, ensuring that the activities of related bodies do not affect confidentiality, objectivity and impartiality, not giving advice or providing consultancy services to the applicant as to the methods of dealing with matters which are barriers to the certification requested (Guide 62 Clause 2.1.2, Guide 65 Clause 4.2)

Quality system

Requirement to document and operate an effective quality system appropriate for the type, range and volume of the work performed. The quality management system to include, among other things, the procedures for the recruitment, selection and training of certification body personnel and monitoring of their performances, procedures for handling non-conformities and for assuring the effectiveness of any corrective and preventive actions taken, procedures for implementing the certification/registration process, including conditions for issue, retention and withdrawal of certification documents, surveillance and reassessment procedures, procedures for dealing with appeals, complaints and disputes (Guide 62 Clause 2.1.4, Guide 65 Clause 4.5)

Conditions for certification

Including requirements to: specify conditions for granting, maintaining and extending certification and the conditions under which certification maybe withdrawn or suspended; document and make available on request procedures for certification assessments, surveillance and reassessment, and identifying non-conformities and the need for corrective action (Guide 62 Clause 2.1.5, Guide 65 Clause 4.8.1)

Personnel competence

Including requirements to: define minimum relevant criteria for the competence of certification body personnel; maintain information on the relevant qualifications, training and experience of accreditation body personnel; define minimum relevant criteria for competence of auditors and technical experts; have a procedure for selecting auditors and technical experts on the basis of their competence, training, qualifications and experience; ensure that the skills of the audit team are relevant and appropriate (Guide 62 Clause 2.2, Guide 65 Clause 6)

ISO Guide 62: General requirements for bodies operating assessment and certification/registration of quality systems, and

ISO Guide 65: General requirements for bodies operating product certification systems.

general since they must apply to all types of certification, but include the requirement for further elaboration of sector-specific guidance.

The assessment team has a number of key functions, each of which is discussed further in subsequent sections, and its make-up must ensure that it performs all of these functions adequately:

- **Interpretation of the standard** (Section 5.1.3) There will almost always be some degree of interpretation of the standard for the specific situation of the actual forest management unit being assessed.
- **Collecting objective evidence** (Section 5.1.2) The team must have sufficient expertise to adequately seek out and collect objective evidence, including making decisions about how much is enough
- **Identifying and weighing non-compliances** (Section 5.1.3) The team must be able to identify non-compliances and differentiate between those which are major and those which are minor.

To perform these different functions requires at least two types of personnel:

- **Trained assessors** who understand auditing techniques and the interpretation of the standard. Many certification schemes in other sectors have very specific requirements for training assessors. This usually consists of a combination of theoretical and practical training:
  - theoretical training on an assessor training course
  - practical training through observation of assessments followed by carrying out assessments while monitored by an experienced assessor.

  Experience has shown that this approach is very effective and so should be the basis for forest sector auditors too. One issue may be that since forestry certification is relatively new, there is limited availability of formal training in forestry assessment. However, other training such as ISO 9000 'lead assessor' courses are very useful in providing generic auditing skills.

Box 5.3 **ISO requirements of assessment team personnel**

ISO requirements related to certification body personnel (from Guide 62)

The certification body is required to:

- Define the minimum relevant criteria for the competence of personnel in order to ensure that evaluation and certification are carried out effectively (Clause 2.2.1.1)
- Maintain information on the relevant qualifications, training and experience of certification body personnel (Clause 2.2.1.2)
- Provide clearly documented instructions to certification personnel describing their duties and responsibilities (Clause 2.2.1.3)
- Define minimum relevant criteria for competence of auditors and technical experts (Clause 2.2.2.1)
- Have a procedure for selecting auditors and technical experts on the basis of their competence, training, qualifications and experience (Clause 2.2.3.1)
- Ensure the skills of the audit team are appropriate, including:
  - familiarity with applicable legal regulations, certification procedures and certification requirements
  - having a thorough knowledge of the assessment method and assessment documents
  - having appropriate technical knowledge of the specific activities for which certification is sought
  - having a degree of understanding sufficient to make a reliable assessment
  - being able to communicate effectively
  - being free from any interest that may cause partiality or discrimination.
- Auditors shall meet the requirements of the appropriate international documentation (Clause 2.2.2.2)

- **'Sector specialists'** within the team to ensure that there is adequate technical expertise to:
  - judge the appropriate interpretation of the standard's requirements
  - assess whether the requirements are being met.

This expertise is usually provided either by assessors who are also sector specialists or by a combination of the assessor and one or more specialists. For example, if the standard includes ecological and social issues, then the team should include specialists in these areas.

Key factor There are three important questions to ask about an assessment team. Firstly, is the team leader adequately trained as an assessor? Secondly, do the team have the combined expertise to assess all aspects of the standard? Thirdly, do the team have the capacity to adequately interpret the standard for the forest being assessed?

5.1.2 Assessment methodology

The main purpose of the certification process is to determine whether or not the requirements of the standard are being met. A certification decision must be justified by clear, rigorous and objective evidence that the standard is complied with. There are two factors which will influence whether or not the methodology used to collect this objective evidence is adequate:

- the sources of objective evidence which are used
- the sampling method used to select what is actually examined.

5.1.2.1 Sources of objective evidence

There are four possible sources of objective evidence:

- **Documentation** Documents provide three types of information:
  - Where the standard specifically requires particular documents (e.g. a written management plan) then the objective evidence of compliance comes directly from the document.
  - Where the standard requires particular levels of management to be implemented, documents showing that this is planned (e.g. operating procedures) contribute towards the objective evidence required, but further verification is needed to ensure that they are complied with in practice.
  - Where the standard requires collection and analysis of information (e.g. to confirm that safety measures are working or to monitor biodiversity) documents in the form of records provide information about what has been done.
- **The forest** An essential source of information is the forest itself. Field visits provide information on current activities and operations. In addition, a somewhat unique feature of forest assessments is that forests often show clearly what has happened in them for some time after the event occurs. Thus, if a harvest crew fail to leave a riparian reserve, anyone visiting the site for the next few years will be able to observe this. Field visits to the forest can be used:
  - to collect evidence that documented plans and procedures are (or are not) being followed in practice
  - to check that data which has been collected is accurate[3] by checking a sample of the data
  - to check the actual performance of operators in the field to collect objective evidence on compliance with areas such as health and safety
  - to collect objective evidence that the state of the forest does (or does not) meet the standard.

[3] The certification process should not include the collection of primary monitoring data such as growth and yield, water flows or numbers of birds or animals. This type of data may be required in order to demonstrate compliance with the standard, but must be collected by, or on the behalf of, the forest manager. The job of the assessment team is to check and verify the data, but not to collect it. This is very important since the assessment period is almost always too short to allow any primary data collection. Therefore, if the data does not exist, this should be treated as failure to demonstrate compliance with the standard. The forest manager will be required to collect this data.

- **Management and workers** What people say is also a very important source of evidence, though a complex one since people do not always tell the truth. However:
  - if there is information people must know in order to meet the standard, then checking they know it provides objective evidence
  - if people interviewed do not know something which they should know in order to meet the standard then this is objective evidence of failure to comply
  - if several people on separate occasions all give the same information in response to a question (for example, what to do in the event of an accident) then this cumulative information provides objective evidence.
- **External parties** Finally, objective evidence can be collected from people outside the forest organisation. This type of information has two main uses:
  - firstly, if the standard requires interaction with the community (e.g. consultation or a 'good neighbour' policy) then information on whether this is implemented needs to be collected from the community in question
  - assessments are always done over a short period (days or, at most, weeks) and therefore if there are any issues which are seasonal or short-lived, these may not be identified by the team during an assessment. However, if they are serious, they are likely to be mentioned by local people or organisations consulted.

There is a further reason for consulting, particularly during the assessment of larger forests. However precise the standard is, there is always some scope for interpretation on a forest-by-forest basis. For some forests, the way in which the standard should be interpreted may not be clear and entering into consultation with interested and affected parties allows the certification body to have input into the process of deciding on an appropriate interpretation. This is discussed further in Box 5.5.

5.1.2.2 Use of objective evidence

One of the main differences between assessment of system and performance standards is in the balance of objective evidence collected from each of these four possible sources. The first part of the assessment process is very similar for both types of standard:

- The assessment team must assess what the forest organisation being audited plans to do and how they plan to do it. This is mainly done by checking documents and from interviewing staff. Based on the information collected, the assessment team then need to decide whether what is planned is adequate to meet the requirements of the standard.
- It is then necessary to collect objective evidence to verify that the plans are actually implemented. This is done from a combination of: visits to the forest to see operations and locations, checking of documented records and discussions both internally and with external stakeholders as discussed in Box 5.2.

At this point, the assessment of a system standard is complete, but for performance standards there is still a final step. It is necessary to establish the adequacy of the actions, i.e. is the level of performance required by the standard actually being delivered as a result of the actions being taken. This means collecting sufficient objective evidence on the actual state of the forest, of documents and of people to confirm that the performance levels in the standard are being met.

For example, the requirement of the standard is that all operators work safely.

- *The plan is to provide all operators with safety equipment and attendance at a half-day training course on safe working.*
- *The mechanism for achieving this establishes where equipment will be purchased and who should run the course and the topics it should cover.*

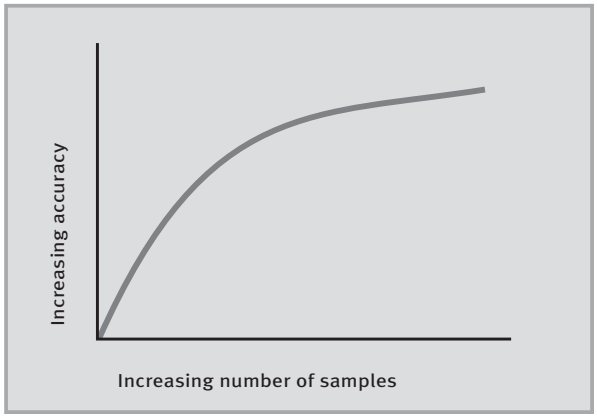
- *Implementation can be checked by establishing that the equipment has been bought and the operators trained (e.g. from training records or signed attendance sheets).*

So far, this seems adequate. However, for a performance standard the assessment team also needs to establish whether, as a result, all operators are now operating safely – the adequacy of the actions. If the equipment is not being used or the training course was not a very good one, and operators were still operating unsafely, then the performance requirement has not been met.

As a result, it is very important for the assessment of performance standards to ensure that sufficient objective evidence is collected to verify that the actual state of the forest together with documentation and people are all in conformance with the standard. This is likely to mean spending more time in the field and carrying out more consultation than would be necessary for a system standard.

When assessing a certification scheme for performance standards it is also useful to consider the special case of small forest enterprises. For such organisations, an excessive focus on documentation can provide a barrier to both implementing the requirements of the standard, and achieving certification. Therefore, it is useful to have guidance on the different expectations for small forest enterprises relative to larger organisations, and to allow for more information to be collected based on the actual state of the forest.

Figure 5.2 **The effect of increasing numbers of samples on the accuracy of the assessment result**



Key factor For all assessments it is important to establish not only that plans are assessed, but also that there is collection of objective evidence that the plans are implemented in practice. In addition, for performance standards, it is essential that objective evidence is collected to establish whether the outcome is adequate to meet the performance requirements of the standard.

5.1.2.3 Sampling

Whatever source objective evidence is collected from, it is impossible except in the smallest forests, for the assessment team to examine everything. Therefore, they have to use sampling, which is standard practice in the world of certification.

Sampling is a valid approach because a randomly selected sample of a population, if sufficiently large, will give a reasonably good picture of the population as a whole. For example, if the 'population' is harvesting sites, then visiting a sufficient number of randomly selected sites will give a good indication of management performance over all sites. There are two issues to consider in sampling: the size or proportion of the sample relative to the total population and the technique used to select the sample.

- **The size of the sample** The greater the number of samples taken, the closer the picture obtained will be to the whole population, but as can be seen in Figure 5.2, above a certain point each additional sample gives progressively less

Figure 5.3 **The effect of increasing numbers of samples on the cost of the assessment**

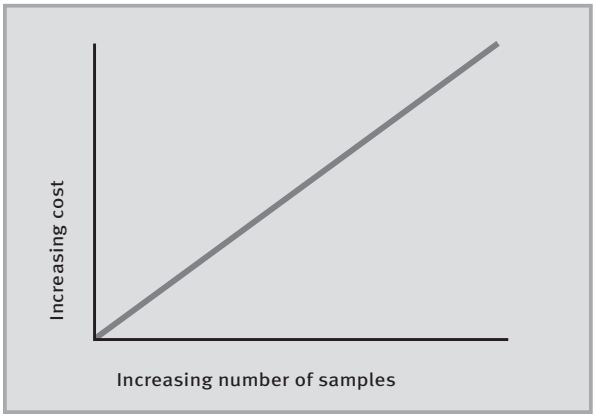
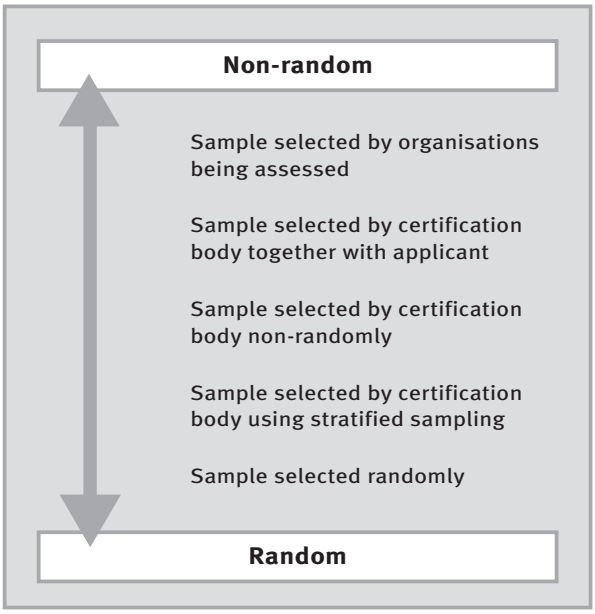


Figure 5.4 **Sample selection strategies**



improvement in the overall accuracy. At the same time, as shown in Figure 5.3, the cost of each additional sample is approximately linear so that excess sampling will result in rapidly decreasing returns on investment.

Therefore, the sample size needs to balance the need for statistical validity with the cost. In general, the greater the variation in the whole population, the greater the number of samples needed to provide a reliable picture, while conversely a population with very limited variation will be adequately described by a smaller number of samples.

- **Selecting samples** Statistical theory is generally based on the assumption that the sample will be selected randomly. Any bias in the selection of the sample will decrease the likelihood that the results are an accurate reflection of the population as a whole (Figure 5.4). In practice, sampling in audits is rarely entirely random, but the importance of random sampling should not be underestimated.

Totally non-random sampling is likely to result in a bias which destroys the statistical validity of the results of an audit. For example, if the organisation being assessed is allowed to select samples, it will almost certainly select the best cases and exclude anything which does not conform with the standard, giving a false impression of compliance. Even if the independent certification body selects the samples, to use a non-random approach is very risky. For example, an assessor might decide to choose field sites non-randomly and select the nearest ones, thus allowing more visits in a day. However, it is likely that these nearby sites are also the ones regularly visited by management and therefore the best managed. If this were the case, then the information obtained by the assessor would be inaccurate. In any case, if only nearby sites are selected, the assessor has no statistical basis for extending the results of the audit to the whole forest.

On the other hand, if totally random sampling is used, it may result in the first two sites chosen to visit both being so difficult to reach that there would be no time left for any other visits, or all the samples randomly falling into only half of the management areas being assessed, or none of the samples falling in an area where there were a number of stakeholder issues to check.

Therefore, it is generally considered acceptable to use some stratified or directed sampling in order to ensure adequate coverage combined with non-random selection. Indeed, in some cases it is good auditing practice to do this in order, for example, to follow up on complaints or information suggesting that a problem exists. However, this approach should always be clearly justified and the statistical implications understood.

Key factor When assessing a certification scheme it is very important to assess:

- the size or proportion of the sample which is used and the justification for that size
- the way in which samples are chosen to ensure statistical validity and avoid introducing unnecessary bias.

5.1.3 Deciding if the standard has been met

The purpose of the certification process is to decide whether or not the standard has been met. There are four main components to this:

- Firstly, as discussed in Section 4, forestry standards are particularly complex and, as a result, even where an appropriate regional or national standard has been developed, there is almost always a need for some degree of interpretation for specific local conditions during an assessment.
- Secondly, it is generally accepted that 'perfect' forest management does not exist and almost always there will be scope for improvement. Therefore, there also needs to be a decision about 'how good is good enough' and a system for identifying and communicating those aspects which do not comply with the standard (non-compliances).
- Thirdly, there needs to be a clear mechanism for making a final decision to issue a certificate.
- Finally, there needs to be a mechanism for the certification body to monitor on-going compliance with the standard after the forest has been certified, to ensure that the standard continues to be met.

Each of these issues is discussed below.

5.1.3.1 Interpretation of the standard

There are three types of interpretation which have to be done:

- **Requirements which are not precise** With the exception of standards produced exclusively for a single forest type, all forest standards include some requirements which have to be interpreted at the level of an individual certification assessment (see Section 4.2.4).

  For example, the standard requires 'appropriate' levels of documentation, the decision on what is 'appropriate' must then be made for each forest depending on size and complexity.

- **Method of meeting the standard** Performance standards tend to specify what has to be achieved, but do not define how this must be done. Therefore, a decision must be made as to whether the particular approach taken by the organisation to meeting a particular requirement is appropriate.

  For example, the standard requires that rare species are protected. Need to decide whether the approach taken for protection of these species is adequate.

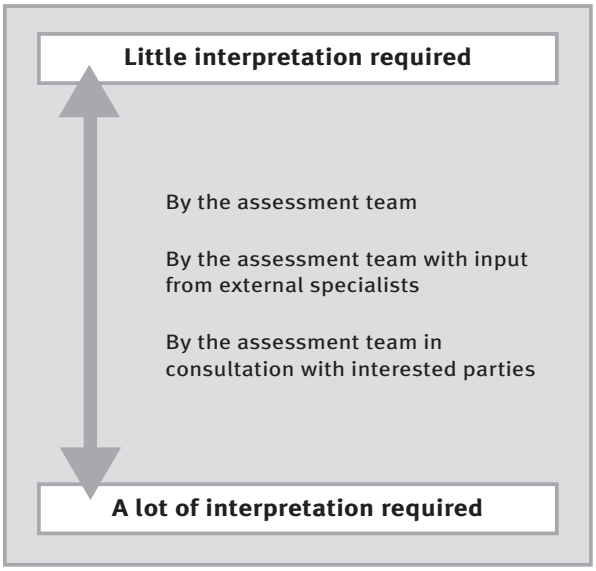
- **Balancing conflicting requirements** Almost all forest organisations will be in a situation of having to balance the various requirements of the standard. A decision must be made on whether the compromises made between different requirements are appropriate.

  For example, is a medium-term increase in chemical use appropriate in order to control exotic species threatening a conservation area? Should local indigenous people be allowed to continue to hunt although this has adverse impacts on wildlife?

As with the original development of standards, there are a number of ways in which this interpretation can be done (see Section 4.1 and Figure 5.5) and, as with the development of standards it is the combination of the people involved and the process followed which will determine the final outcome.

It is possible for the interpretation to be done entirely by the applicant forest manager with the certification body simply confirming that the inter-

Figure 5.5 **Interpretation of the standard at Forest Management Unit (FMU) level**



pretation is reasonable. This is generally the approach taken in auditing the performance elements of system standards such as ISO 14001 where the performance requirements are developed by the organisation.

For performance standards it is more common that the assessment team make the interpretation and then see if the organisation is meeting the interpreted requirements. This can be done by the assessment team alone, providing an 'experts' interpretation'. This is appropriate if the interpretation by experts is likely to be considered adequate. If the assessment team are making most or all of the interpretation, then the membership of the team is very important. This was discussed further in Section 5.1.1.2.

Alternatively it can be done by the assessment team with some input from external parties. This is more appropriate in situations where the correct interpretation of the standard is not clear, or where there is likely to be disagreement about what is appropriate. This approach can range from an *ad hoc* input of comments from external parties through to a fully consultative process. The higher the degree of external influence, the more widely the interpretation is likely to be accepted. However, any consultation will also increase the cost and length of the audit process.

The approach which is most appropriate will depend on how much interpretation is required and how difficult this interpretation is likely to be.

Key factor It is important to establish that the issue of FMU-specific interpretation of the standard is adequately addressed. The degree of interpretation will depend on:

- the precision of the standard relative to the forest type being assessed
- the complexity and size of the forest being assessed
- the previous experience of using the standard and the degree of precedence which exists.

5.1.3.2 Non-compliances and Corrective Action Requests (CARs)

In the real world perfection is seldom achieved and assessment teams almost always find evidence of incomplete compliance with one or more requirements of the standard. The normal way to deal with this is through the issue of 'Corrective Action Requests' (CARs) which set out details of the non-compliance and the requirement for action to be taken.

Experience shows that the seriousness of non-compliance varies widely. Some are very serious and clearly need to be addressed before certification can be considered. However, to insist that every minor non-compliance must be completely addressed prior to the certificate being awarded would add significantly to the time, cost and inconvenience of an audit and so it is accepted practice that certification can proceed even in the absence of 100% compliance provided that the non-compliances are not serious and are addressed within a reasonable (and agreed) timeframe.

To implement this in practice, it is necessary to have a mechanism for differentiating between non-compliances which are serious and those which are not. In certification schemes in general, this is usually controlled through the classification of non-compliances into major and minor. If non-compliances are classified as major, they must be addressed prior to a certificate being awarded, whereas if they are classified as minor then a certificate can be awarded, conditional upon the minor non-compliances being addressed within an agreed time. This should be checked by the certification body as part of their ongoing surveillance.

This raises the issue of the number of CARs that are acceptable. The cumulative effect of many, even minor, CARs can indicate limited compliance with the standard. For example, if a series of minor CARs were raised against a range of the requirements of the standard, should this be equivalent to a major CAR? The way that certification bodies deal with numerous, minor non-compliances is therefore important to maintain the credibility of a certification scheme.

Key factor When assessing a certification scheme, it is very important to check how non-compliances are categorised and used to ensure that it is appropriate. It is also important to see how progress by a certified organisation in addressing minor non-compliances is monitored by the certification body.

5.1.3.3 The decision-making process

The guidelines set out by ISO for certification decision-making provide a very sound basis. They specify that the decision must be based on objective evidence and that the final certification decision should always be made by a person or group which is independent from the assessment itself (ISO Guide 62, Clause 2.1.2). This requirement has been established to minimise the risk of auditors being threatened, bribed or otherwise unduly influenced.

It is also possible to add other requirements into the decision making process such as the requirement for peer review of the final report, or for a special panel to make the final decision. Either of these can help to add another level of independent confirmation that:

- the objective evidence collected is sufficient
- the interpretation of the evidence is reasonable
- the standard has been met.

Peer review is the process of engaging one or more independent specialists to review the certification report and recommendations produced by the assessment team. It is particularly useful when the panel making the final certification decision is unlikely to have adequate expertise or experience of the particular forest type and location under assessment. In this case, the peer reviewers act as 'sector specialists' for the final review panel.

Key factor When assessing a certification scheme it is important to ensure that it has a certification decision-making process which meets ISO guidelines and ensures that the final decision is based on an adequate understanding and analysis of the objective evidence.

5.1.3.4 Surveillance

Certification is not complete at the moment when a certificate is awarded. It is an ongoing process where a number of things need continued monitoring:

- Continued compliance with the standard must be checked to ensure that if performance lapses then the certificate is removed.
- Any comments or complaints from stakeholders related to the certified organisation need to be addressed.
- Any outstanding minor corrective action requests must be monitored to ensure that they are addressed within the agreed timeframe or else the certificate is withdrawn.
- Any changes to the law or the standard (which are usually reviewed at least every five years) are adequately implemented.
- Any repeated CARs raised on the same issue.
- Any changes in the forest organisation or forest area are monitored.

Therefore, it is essential that the certification process includes the requirement for regular monitoring or surveillance visits, and a mechanism for suspending and withdrawing the certificate if a certified organisation ceases to comply with the standard.

Key factor Certification schemes must include the requirement for regular and adequate monitoring of certificate holders and mechanisms to remove certificates if the standard is no longer being met or if Corrective Action Requests (CARs) have not been met.

5.2 Ensuring confidence in the process and decision

Clearly, confidence in the process and the decision will depend on all of the components described in Section 5.1 being adequately implemented. One of the most important ways of ensuring this is through accreditation. In addition to accreditation,

Figure 5.6 **Mechanisms for ensuring confidence in the certification decision**

Accreditation	Complaints procedures and resolution	Transparency
Certification body systematically checked by experts who confirm that certification decisions are adequate	Third parties can get a response if they are concerned about specific issues	Third parties have access to sufficient information to decide for themselves if the certification decision was adequate

both adequate complaints procedures and transparency are ways of building confidence and credibility (Figure 5.6).

5.2.1 Accreditation

Accreditation is the internationally-accepted basis for confirming that certification bodies are credible, independent and operating properly. A convenient way of considering accreditation is that it is the process of 'certifying the certifiers'. It is so fundamental to a credible certification decision that it is considered one of the three essential elements of a certification scheme and is discussed in detail in Section 6.

As that discussion establishes, accreditation can vary significantly in the way it is carried out, and in the perceptions of how effective it is. As a result, there can be significant variation in the degree of confidence it provides.

A striking example of this is provided by an analysis of the accreditation provided for the international quality standard ISO 9000. In common with most ISO standards, accreditation is provided by national accreditation bodies. National accreditation bodies in most countries provide this service, but the perceived credibility varies. As a result, ISO 9000 certificates issued under the accreditation of some national bodies are not accepted by large parts of the market, and certification bodies in the countries served by these national bodies approach foreign accreditation services with a better reputation to provide their accreditation service.

Key factor Credible accreditation is fundamental to credible third party certification. Credible accreditation is discussed in Section 6.

5.2.2 Complaints procedures and resolution

While accreditation is very important, it is recognised that it is still necessary to provide a mechanism to deal with situations where there is objection to a certification decision, either by the organisation being assessed or by a third party.

It is not generally considered sufficient just to document complaints. ISO guidelines specify that certification bodies '*should have policies and procedures for the resolution of complaints, appeals and disputes*' (Guide 6.2, Clause 2.1.2) and provide some guidance as to how these should be developed.

Key factor Certification bodies should have documented procedures which, when implemented, are able to resolve any complaints, appeals and disputes.

5.2.3 Transparency of the certification process

With technical standards such as those for product safety or quality it has been usual to depend on accreditation, together with a complaints mechanism, to provide credibility for certification. However, with the advent of increasingly complicated standards covering social and ecological requirements as well as technical ones, it has been recognised that to provide credibility it may be necessary to allow interested parties direct access to information about the process and the results of a certification assessment. This allows the interested parties to make their own decision about whether or not the result is acceptable. However, this has a number of consequences, most importantly on the need of forest managers to maintain

confidential information, and on the cost of the assessment. Both of these must be balanced against requirements for transparency.

Transparency can be provided by a number of mechanisms:

5.2.3.1 Information on the certification body

Information about the certification body is very important since it allows interested parties to check whether the organisation is genuinely competent and independent. ISO Guide 62 provides guidelines shown in Box 5.4.

Key factor There should be a requirement that the information on certification bodies suggested by ISO is made available to interested parties.

5.2.3.2 Consultation and participation

Consultation and participation are relevant to each element of a certification scheme which sometimes leads to confusion about exactly what is appropriate at each stage. Box 5.5 provides a summary of the role of consultation and participation within the whole scheme. This section examines the role of consultation and participation in the certification process.

Since certification is a technical process, consultation is usually considered more appropriate than participation, since the latter might jeopardise the independence of the process. Consultation, however, can play a number of important roles, each of which has been discussed in previous sections. These are:

- input into the interpretation of the standard for the specific organisation being certified (Section 5.1.3)
- information on the organisation being assessed (Section 5.1.2)
- provision of objective evidence on compliance or non-compliance with requirements relating to interaction with consultees (Section 5.1.2)
- identification of issues that may otherwise not be apparent to the auditors (Section 5.1.2)

Box 5.4 **ISO guidelines for provision of information by certification bodies**

Requirement to provide, update and make available on request the following information:

- a documented statement of its product certification system, including rules for granting, maintaining, extending, suspending and withdrawing certificates
- information about the evaluation procedures and certification process
- a description of the means by which the organisation obtains financial support and general information on the fees charged to applicants and to suppliers of certified products
- a description of the rights and duties of applicants and suppliers of certified products
- information about the procedures for handling disputes, complaints and appeals
- a directory of certified products and their suppliers.

ISO Guide 62, Clause 2.1.7.1

- contribution to the credibility of the final decision (Section 5.1.3).

The effectiveness of consultation can vary substantially. Two important factors in its effectiveness are:

- **The diversity and representativeness of those consulted** There are a wide range of potential consultees for most certification processes including government, industry, local communities, indigenous people, environmental and social NGOs, trade unions and workers. The more representative the sample, the more effective the consultation process is likely to be.
- **Consultation methods** There are a range of ways for consulting including letters, emails, phone calls, private meetings and public meetings. There is no single correct way to carry out consultation since different situations will require different approaches. But it is important that the appropriateness of the approach is considered. For example, consultation by letter is unlikely to be effective in eliciting input from illiterate local communities.

Box 5.5 **Consultation and participation in certification schemes**

The need for, and importance of, participation and consultation has been widely discussed in relation to forest certification (eg Ervin, 1996; World Commission on Forests and Sustainable Development, 1999;. Prabhu and Colfer, 1999; Higman *et al*, 2000). Despite this, in relation to the design and use of certification schemes, there is often a lack of clarity about what it is needed for, and how it should be implemented. This box summarises the main components of certification schemes where consultation and participation are relevant. Further detail can be found in the sections cited.

During the development of the standard (see Section 4.1)	• Provides input of technical information • Provides input into the decision on how to deal with gaps in information • Provides input into the decision on how to balance conflicting requirements • Ensures that the standard has support
As a requirement of the standard to be carried out by the forest organisation (see Section 4.2)	• Provides the basis for interaction with local communities and other stakeholders • Promotes equity and empowerment, thus contributing to sustainable development • Contributes to the management of social impacts • It provides input into the process of balancing conflicting social, economic and environmental needs which the forest managers may need to undertake
As part of the certification process (see Section 5.1)	• Provides input into the interpretation of the standard for the specific organisation being certified • Provides assessment team with information on the organisation being assessed. • Provides objective evidence on compliance or non-compliance with requirements relating to interaction with consultees • Contributes to the credibility of the final decision
As part of the accreditation process (see Section 6)	• Provides the accreditation body with information and objective evidence relating to the compliance certification body • Contributes to the credibility of the accreditation process

In both these cases it is impossible to prescribe exactly what is required, but since it is not an easy process, nor one with well-defined protocols, it is important that the certification body has clearly defined procedures for what should be done and how.

Particular attention should be paid to the issue of small forest enterprises where a requirement for significant amounts of consultation may increase the cost of the assessment disproportionately compared to larger organisations.

Key factor The degree of consultation required as part of the certification process should be clearly defined, based on the need to interpret the standard, collect objective evidence and ensure credibility. Issues of diversity and representativeness of those consulted, the effectiveness of the consultation methodology used, and the particular case of small forest enterprises should all be considered.

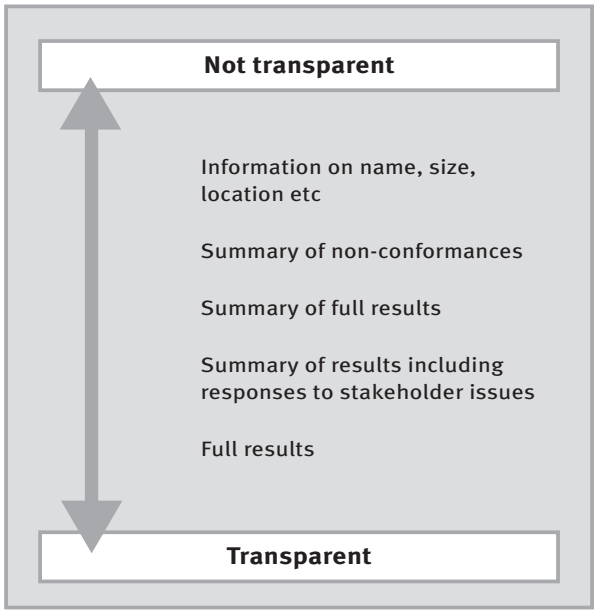
5.2.3.3 Publicly available information

The level of transparency provided depends on the amount and quality of information available publicly about an assessment. The amount of information provided can range from a bare minimum stating the name, size and location of the forest certified through to a report setting out the results of the assessment in full as shown in Figure 5.7.

Provision of only factual information on the forest does not provide any transparency. In this case, all credibility must be provided by the accreditation body. This is the normal way of working for many technical international standards.

Adding a summary of any non-conformances, allows interested parties to assess where key weaknesses lie within the organisation and whether their own concerns have been adequately identified. It does not provide any information on what

Figure 5.7 **Provision of information in public reports**



evidence was collected to confirm compliance with all other requirements.

Providing a summary of results, with or without other information such as a summary of stakeholder comments or information on the local context within which the forest lies provides a significantly higher degree of transparency since it allows interested parties to understand and appraise for themselves the information on which the certification decision was based. The more detailed the results provided, the greater the transparency.

There are three key matters to consider when deciding how much information needs to be available:

- **Confidentiality** Most organisations have some information which they need to keep confidential. This is usually either because it relates to personnel or because it is commercially sensitive. It is not usually considered appropriate to force organisations to make this information public if they wish to be certified, although it will be made available to the assessment team and should be noted in the full report. As a consequence, full results are not usually published.
- **Costs** The more information which has to be included in a public report, the higher the cost of writing and circulating it. In addition, public reports have to be more accurately worded to ensure that they can be fully understood, thereby excluding abbreviations and local or company jargon. Cost will also be a particular issue if the forest is small but large amounts of information must be presented.
- **Accessibility** Although long reports provide a lot of information, this sometimes makes it more difficult to pick out central issues, particularly if the report is in a foreign language. Therefore, sometimes it is easier for some interested parties to be provided with a relatively simple summary.

Particular attention should be given to the issue of small forest enterprises. The need to provide lengthy public written reports can increase the overall cost of the certification disproportionately compared to larger organisations.

Key factor Information on the results of the assessment should be made public. The more information that is provided, the greater the ability for interested parties to determine for themselves whether they agree that the forests meets the requirements of the standard. Increased provision of information can contribute significantly to transparency but this must be balanced against confidentiality and increased cost.

5.3 Certification of Small Forest Enterprises (SFEs)

An analysis of the barriers to certification for small forest enterprises (SFEs) suggested that the complexity and resulting cost of the certification process can act as a significant barrier to certification.

However, it also suggested that there are a number of mechanisms which can reduce this barrier, the most important of which was identified as group certification. If designed and run effectively, this can provide a credible and cost-effective mechanism for allowing SFEs to access certification.

A guide which sets out the requirements for a credible group scheme, together with guidance on setting up and running a group certification scheme was therefore developed (Nussbaum, 2001).

Key factor Is there an effective and credible mechanism for ensuring that the certification process is available to SFEs at a reasonable cost through mechanisms such as group certification schemes?

6 ACCREDITATION

Accreditation is the process that provides assurance that a certification body is competent, that it meets all the requirements of the scheme and that its assessments and decisions are sound. It is, in effect, the 'certification of the certification body', and thus is often confused with certification itself. More formally, the ISO definition of accreditation is a *'procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks'* (ISO/IEC 1996a). Accreditation is generally accepted as an essential requirement for credible certification. If an organisation wants to use certification to communicate their environmental performance, a certificate issued by an accredited certification body is likely to be a more effective basis on which to do this.

Accreditation bodies offer accreditation for specific certification services (the scope of accreditation) that are defined in a legally binding contract between an accreditation body and certification body. Accreditation of certification services for most international standards (for example, ISO 9000, ISO 14001) is carried out by national accreditation bodies. In many countries where accreditation services are offered, one accreditation body is recognised by the government, business and the standardisation community as being the single national accreditation body.

Accreditation services have had to adapt to the demands of international trade. Many certification bodies offer certification services internationally; they need accreditation that is recognised in every country in which they operate. Companies that are buying or supplying from more than one country need to be able to rely on the accreditation services available in those countries. The organisation of accreditation services has adapted in three ways:

- **International standards for accreditation services** ISO has developed an international standard for the assessment and accreditation of certification bodies – ISO/IEC Guide 61 (ISO/IEC 1996b).

- **Mutual recognition between national accreditation bodies** There are international arrangements that provide for mutual recognition between national accreditation bodies; for example, the International Accreditation Forum at global level and European Accreditation at a regional level in Europe. These arrangements allow a certification body to provide services under a single accreditation in more than one country as well as providing assurance that participating national accreditation bodies are operating to the same standards.
- **Accreditation with an international scope offered by international bodies** Accreditation may also be offered by international accreditation bodies. These are usually sector specific international bodies, for example the International Federation of Organic Agriculture Movement's Accreditation Programme for organic agriculture (IFOAM 2001) and the Forest Stewardship Council for forest certification (FSC 2001).

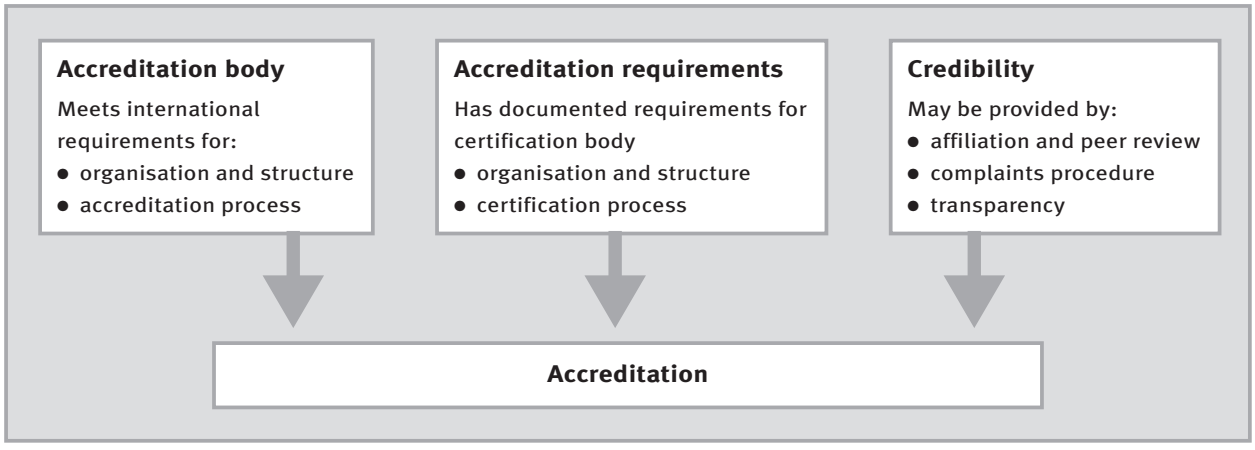
To aid the discussion of the accreditation element of certification schemes, we have divided the accreditation element into three parts (Figure 6.1):

- **Requirements for accreditation bodies** These include guidelines governing the internal organisation of accreditation bodies as well as the accreditation procedure including ongoing monitoring of certification body performance.
- **Rules for certification bodies** The accreditation body must lay down adequate requirements for the internal organisation of certification bodies and also the way in which the certification bodies conduct the certification process. These requirements become critically important when the scope of accreditation includes activities that are especially complex, as is the case with forest management certification.
- **Credibility** Because the purpose of accreditation is to provide credibility to certification, the credibility of the accreditation body itself is vital. An accreditation body can attain credibility by fulfilling the rules for accreditation bodies and ensuring adequate rules for certification bodies (above), but may wish to enhance its credibility further by affiliation to other bodies, having adequate complaints procedure mechanisms and making its activities transparent.

6.1 Requirements for accreditation bodies

Requirements for accreditation bodies fall in to two categories, each of which is discussed below. The first concerns requirements for the internal organisation of the accreditation body. These should follow internationally recognised standards, which are designed to ensure that the accreditation body is competent to conduct accreditation assessments. The second category involves the way in which accreditation is carried out – the accreditation process. These are necessary to

Figure 6.1 **Components of an accreditation system**



ensure that accreditation decisions are consistent and reliable.

6.1.1 Accreditation body organisation

The internationally recognised standard for general requirements of accreditation bodies is ISO/IEC Guide 61 (ISO/IEC 1966b). The requirements related to accreditation body organisation and how it operates are summarised in Box 6.1. These requirements are widely accepted as providing an appropriate basis for operating an accreditation scheme in any sector, including forestry.

Key factor An accreditation body should conform to the organisational requirements set out in ISO/IEC Guide 61.

6.1.2 Accreditation procedures

Just as the certification process has established rules for assessment and decision-making, accreditation should follow a defined procedure. In practice, the steps in the accreditation process are similar to those for certification as set out in Box 6.2.

In common with certification, and as discussed in detail in Section 5, the effectiveness of the accreditation process will depend on the people involved, the methodology followed and the final decision made. An additional issue of some importance to accreditation is the scope of the service. Each of these issues is discussed below.

Key factor Accreditation bodies must have in place a structure for the accreditation process that is adequate to ensure that it makes reliable and competent decisions.

6.1.3 Competence of accreditation body personnel

One of the objectives of an accreditation assessment is to determine whether a certification body is competent to undertake assessments against a particular certification standard. The accreditation assessment team must be able to determine whether the certification body is operating an effective organisational structure and management system and deploying competent assessment teams which will result in certification decisions that are sound and repeatable.

Box 6.1 **ISO/IEC Guide 61 General requirements for assessment and accreditation of certification/ registration bodies**

Below is a summary of the key ISO requirements relevant to accreditation bodies' organisation, from ISO Guide 61

Non-discrimination and accessibility (Clauses 2.1.1.1 and 2.1.1.2):

Accreditation bodies' policies and procedures must be non-discriminatory and their services must be accessible to all applicants whose activities fall within their declared field of operation, regardless of the size of the applicant body or the number of bodies already accredited

Impartiality (Clauses 2.1.2.a, 2.1.2.e, 2.1.2.f):

Accreditation bodies are required to act impartially and have a documented structure that safeguards their impartiality. The structure must enable the participation of all parties significantly concerned in the development of policies and principles regarding the content and functioning of the accreditation system. A person or persons different from those who carried out the assessment must take the accreditation decision.

Conflict of interest (Clauses 2.1.2.l, 2.1.2.m, 2.1.2.o):

Accreditation bodies are required to have policies and procedures that distinguish between accreditation and any other activities in which they are engaged. Accreditation bodies and their staff must be free from any commercial, financial and other pressures that might influence the result of the accreditation process. Activities of related bodies must not affect the confidentiality, objectivity or impartiality of accreditation decisions. In particular, accreditation bodies must not offer or provide directly or indirectly: those services that it accredits others to perform; consulting services to obtain or maintain accreditation; services to design, implement or maintain a certification scheme.

Reference should be made to the original text for the complete set of requirements (ISO/IEC, 1996b).

Box 6.2 **The accreditation process**

Application	The certification body applies to the accreditation body. A contract is signed that specifies the scope of the accreditation applied for and the terms and conditions under which applicant is evaluated and accreditation granted and maintained.
Evaluation	The accreditation body carries out an evaluation of the certification body's organisation, systems, procedures and certification assessments and decisions. The evaluation team collects objective evidence that demonstrates whether the requirements of accreditation are being met. At the end of the evaluation the evaluation team holds a closing meeting with the applicant to present its findings.
Reporting	The accreditation body prepares a report of the evaluation. A copy of the report is given to the applicant, who is invited to comment on it. The report describes any non-conformances identified by the evaluation team and the corrective action requests raised by the team.
Address non-conformances	The applicant certification body may be required to close out corrective action requests before accreditation is granted. Alternatively, accreditation may be granted subject to corrective action requests being closed out within a specified time.
The accreditation decision	The accreditation decision is made on the basis of the report and the outcome of corrective action requests (if appropriate). Accreditation decisions must be taken by a person or persons different from those who carried out the assessment.
Accreditation and surveillance	Following accreditation, the accreditation body maintains surveillance over the certification body to ensure that any corrective action requests raised before accreditation have been closed out, and to ensure continued compliance with the requirements of accreditation and the close of subsequent corrective action requests.

As is evident from the discussion in Sections 4 and 5, forest certification standards and forest certification procedures are complicated. Accreditation assessors and the staff of accreditation bodies that make the accreditation decision need to have sufficient understanding to be able to make reliable and consistent assessments of certification bodies. In order to address the requirements of Clause 2.2 of ISO Guide 61 (ISO 1966b), a body offering accreditation for forest certification would be expected to define the minimum forest management and forest certification competencies of its assessment and accreditation staff, and describe the procedures that it uses to ensure that staff have these competencies, including recruitment, training and continuing professional development.

Auditors from the accreditation body should meet the requirements of ISO Guidelines for Auditing Quality Systems Part 1 (ISO 10011-1, ISO 1990) and Part 2 (ISO 10011-2, ISO 1991) and they should have a thorough technical knowledge of the specific activities for which accreditation is sought and enough understanding to make a reliable assessment (ISO/IEC Guide 61, Clause 2.2).

The minimum competencies for accreditation body personnel will depend on the nature of the standard. Assessments of certification bodies offering forest certification against a system standard may require a different set of minimum competencies compared to accreditation for certification against performance standards. Box 6.3 lists the criteria used by the United Kingdom Accreditation Service (UKAS) for the selection of technical experts for

the assessment of bodies offering certification against the UK Woodland Assurance Standard (UKWAS).

Key factor Accreditation bodies for forest certification must specify minimum competencies for assessment staff, ensure the competencies include relevant forestry and forest certification qualifications, knowledge and experience, and must have adequate recruitment, training and continuous professional development procedures.

6.1.4 Accreditation assessment methodology

Just as for certification assessments, the way in which an accreditation body collects objective evidence during an accreditation assessment can have a significant bearing on the outcome. As noted in Box 6.1, ISO Guide 61 requires accreditation bodies to specify their assessment and accreditation procedures (Clause 2.1.7.1). This should include the means by which the assessment team obtains objective evidence.

Box 6.3 **Criteria for the selection of UKAS technical experts for the assessment of forest certification bodies.**

Only those criteria that address forest management and forest certification knowledge, skills and experience are listed in this box. General criteria are not listed and can be obtained from the original text (UKAS 2001).

1 Knowledge of forest certification systems

The individual should be able to:

- Explain what thirty party verification means and why it has become important in the international forest products market.
- Describe the main components of and the differences between the FSC and PEFC and describe the relationship of the UKWAS to the FSC and PEFC.
- Describe the relationship between certification bodies and accreditation bodies and the role of UKAS in relation to the PEFC.

2 Familiarity with the development of sustainable forest management principles internationally

The individual should be able to:

- Outline the main events and processes from 1990 onwards that have driven the development of sustainable forest management principles.
- Outline the Pan-European Criteria and Indicators

3 Familiarity with the UK policy and regulatory environment within which the UKWAS operates.

The individual should be able to:

- Describe the institutional arrangements for forestry in the United Kingdom
- Describe the main areas of law and regulation that are relevant to forestry
- Outline the UK Forestry Standard and describe the supporting Guidelines and Forest Practice Guides.

4 Familiarity with the application of the UK Forestry Standard

- The individual should have recent experience of forest management in a position that has required judgement as to how to interpret the silvicultural, environmental and social elements of the UK Forestry Standard.

5 Understanding and interpretation of the requirements of the UKWAS certification standard

- The individual can outline the main requirements in each section of the standard, can identify problems of interpretation and can suggest practical solutions, and:
  - can provide evidence of significant involvement in the development of the UKWAS standard, or
  - can provide evidence of significant involvement in redesigning forestry systems to comply with the requirements of the UKWAS standard, or
  - has led a third party assessment of forest management in the UK, or
  - has participated in at least three third party assessments of forest management.

6 Professional standing

The individual should have:

- corporate membership of the Institute of Chartered Foresters and at least 5 years experience in positions that have required judgement as to how to interpret the silvicultural, environmental and social elements of the UK Forestry Standard, or
- a degree or diploma in forestry and at least 10 years experience in positions that have required judgement as to how to interpret the silvicultural, environmental and social elements of the UK Forestry Standard.

The assessment team can collect objective evidence from a variety of sources (Figure 6.2).

Accreditation assessments usually begin with an assessment of the certification body documentation to confirm that all the necessary systems and documents are in place. This, by itself, however, does not tell the accreditation body whether or not the system is actually working in practice and the certification body is carrying out assessments properly.

Therefore, accreditation bodies frequently include assessments of organisations which have been evaluated by the applicant certification body to see whether the process has been carried out properly. In the case of forest certification this would mean the forest manager and the forest. This provides objective evidence of whether the certification body's systems work in practice.

Some accreditation bodies go beyond this and invite external comments on applicant certification bodies. As with the use of consultation during the certification process, this increases the probability that the accreditation body will be aware of any specific issues likely to compromise the accreditation.

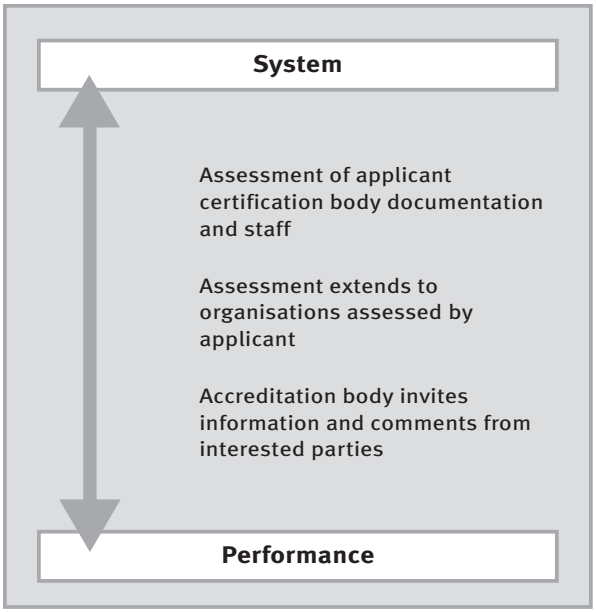
In summary, accreditation of forest certifying bodies should include inspection of the applicant's offices and documentation, will be strengthened by inspection of organisations certified by the applicant and can be strengthened further still by including consultation in the evaluation procedures which can increase confidence in the accreditation body.

Key factor An accreditation body's evaluation procedures must ensure that accreditation decisions are supported by appropriate objective evidence.

6.1.5 Geographical scope of accreditation

One final issue is the geographical scope of the accreditation. As discussed in the introduction, accreditation has often been carried out by national accreditation bodies which provide the accreditation for certification bodies to work in their country.

Figure 6.2 **Sources of objective evidence for accreditation bodies**



However, with the increasing globalisation of trade, there is a corresponding demand for some form of global approach. This applies not only to standards, but also to the accreditation under which the certification is carried out. There are a number of reasons for this:

- Many companies which trade internationally do not want the additional bureaucracy and inconvenience associated with evaluating each national accreditation service to decide whether it is acceptable (necessary because of perceived differences in competence). They prefer to chose one or two national or international services and then demand that all certificates are issued under these accreditations.
- Many certification bodies work internationally and it is a significant increase in cost to seek and obtain accreditation for the same standard in many countries. Since this cost is passed on to the clients, ultimately it makes certification more expensive for the organisation being certified.
- As the number of standards increases, national

accreditation services in many small and developing countries are unable to keep up with the need for accreditation services. As a result, organisations in these countries will be at a disadvantage unless they can seek certification through an accreditation which already exists.

There are three approaches to providing a wide geographical scope to accreditation services:

- National accreditation bodies can recognise each others' accreditation so that a certification body accredited by one body will be recognised as accredited by the others.
- A certification body accredited by a national body is able to work in a wider geographical framework. This must be agreed with the national accreditation body since it must ensure that its procedures are adequate to cover the wider scope.
- The accreditation body can be international. In this case, it must have systems and procedures in place which ensure that its accreditation is appropriate to all countries where the accredited certification body can work.

Key factor The geographical scope of the accreditation should meet the needs of the user for national, regional or international coverage. The accreditation methodology should be specifically designed for the geographical scope provided.

6.2 Requirements for certification bodies

The main task of the accreditation body is to establish that the certification body organisation and certification process are both adequate. To do this properly the accreditation body must have clearly defined requirements for:

- the organisation and structure of the certification body
- the certification process used.

These are both discussed in detail in Section 5. All the requirements and issues discussed there need to be documented by the accreditation body as the basis for accreditation. This can either be in the form of internal documents developed by the accreditation body, or external documents developed by a certification scheme but used by the accreditation body.

Key factor Accreditation bodies must specify the requirements that certification bodies must meet. These should include the generic requirements set out in ISO/IEC Guides 62 and 65 and requirements specific to the certification of forest management.

6.3 Confidence in accreditation

Just as for certification, it is important that accreditation assessments and decisions should have the confidence of interested and affected parties. Where this is not in place, the accreditation can end up having little value and the credibility of the entire certification scheme could suffer as a result. There are a number of ways of achieving confidence in addition to the requirements of competence, independence and honesty that are set out in ISO/IEC Guide 61 (ISO/IEC 1968a). They are affiliation to international bodies, peer review, complaint procedures and transparency.

6.3.1 Affiliation to international bodies and peer review

One way of providing credibility for accreditation bodies is through affiliation to an international organisation which is itself credible. Two such organisations (see Box 6.4) are the European Accreditation organisation (EA, 2001) and the International Accreditation Forum (IAF, 2001). Both organisations offer membership to nationally recognised accreditation bodies. The EA is open only to those from the member countries or the candidate countries of the European Union and EFTA[4] while the IAF is international. The IAF also

[4] European Accreditation offers associate membership to nationally recognised accreditation bodies in the European geographical area who can demonstrate that they operate an accreditation system.

Box 6.4 **International accreditation organisations**

European Accreditation's objectives (EA, 2001)

EA's objectives include: achieving a uniform approach to accreditation throughout Europe; achieving universal acceptance of accredited certificates; building and maintaining confidence among nationally recognised accreditation systems and supporting the harmonised implementation of accreditation standards.

Charter of the International Accreditation Forum (IAF, 2001)

'The International Accreditation Forum, Inc. (IAF) is an international association of organizations that have agreed to work together on a worldwide basis to achieve common trade facilitation objectives. We are a major world forum for developing the principles and practices for the conduct of conformity assessment that will deliver the confidence needed for market acceptance. We act through the accreditation of those bodies that certify or register management system, products, personnel and/or inspection.

We promote the worldwide acceptance, of certificates of conformity issued by inspection, certification and/or registration bodies accredited by an Accreditation Body Member of IAF, and seek to add value for all stakeholders through what we do, and through our programs.

We bring together, on a worldwide basis, partner accreditation bodies and representatives of stakeholder groups that seek to facilitate global trade through the acceptance of accredited certificates of conformity.

We develop and/or recognize appropriate processes and practices for the conduct of conformity assessment worldwide, and ensure their universal application by IAF Accreditation Body Members and their accredited certification, registration and/or inspection bodies.

We consult widely with stakeholders in developing our programs, and we work to deliver the best possible standard of conformity assessment in order to provide our stakeholders with a value added outcome.

We influence world trade through linking, and working, with other key international organizations and industry groups.'

offers membership to regional groupings of Accreditation Bodies whose aims include the maintenance of Regional Multilateral Recognition Agreements recognizing the equivalence of their members' accreditations (IAF, 2001).

The aim of organisations such as EA and IAF is to ensure a consistent level of quality in all members through multilateral agreements and evaluation of applicants is based on peer assessment.

EA and the IAF do not admit international accreditation bodies which prevents organisations such as IFOAM and FSC from benefiting from membership of the international organisations. Within the forestry sector, international accreditation bodies could potentially join the Social and Environmental Accreditation and Labelling (ISEAL) Alliance, an organisation which aims to gain international recognition and legitimacy for their programs; to improve the quality and professionalism of their respective organisations; and to defend the common interests of international accreditation organisations (ISEAL Alliance 2000).

Alternatively, international accreditation bodies can set up a system of regular peer review by either another international accreditation body, or by a credible national accreditation body.

Key factor Credibility of an accreditation body can be improved by membership of a credible international body, or by a system of peer review by a credible organisation

6.3.2 Complaints procedures

It is important to provide a mechanism to deal with situations where there is an objection to an accreditation decision, either by the organisation being assessed or by a third party. ISO/IEC Guide 61 requires accreditation bodies to have policies and procedures for the resolution of complaints, appeals and disputes received from applicant and accredited certification bodies or from other parties about the handling of accreditation or any related matters (Clause 2.1.2.p). These mechanisms must be able to deal with disputes of complaints related to:

- the accreditation decision, either from the certification body or a third party
- the performance of an accredited certification body, particularly any complaints about its certification decisions.

Key factor Accreditation bodies should have documented procedures for resolving complaints, appeals and disputes relating to both their own accreditation decisions and the certification decisions made by accredited certifiers.

6.3.3 Transparency

ISO Guide 61, Clause 2.1.7.1 requires that accreditation bodies make available various types of information on request. This includes information about:

- the authority under which the accreditation body operates
- a documented statement of its accreditation system, including its rules and procedures for granting, maintaining, extending, reducing, suspending and withdrawing accreditation
- information about the assessment and accreditation process
- a description of the means by which the accreditation body obtains financial support
- a description of the rights and duties of applicants and accredited bodies
- information on procedures for handling complaints, appeals and disputes.

These requirements provide a degree of transparency in accreditation and should form the basis for any accreditation system.

Transparency of accreditation can be enhanced in the same ways as for certification. Information can be made publicly available about bodies that are seeking or have been granted accreditation. At a level up from this, adding a summary of non-conformances allows interested and affected parties to see whether there are any key weaknesses. One more level up, providing a summary of results allows interested and affected parties to make their own judgement on the accreditation decision.

The same considerations apply to transparency of accreditation as to certification. They are: confidentiality of information; the cost of making the information available; and the accessibility of the information.

Key factor Transparency in accreditation can make certification schemes more credible. In deciding the appropriate level of transparency, a balance has to be struck between the requirements of external stakeholders on the one hand and additional cost and loss of confidentiality on the other.

7 CLAIMS

Forest product claims provide information that allows discrimination between one product and another or one company and another on the basis of the quality of management in the forests from which the timber originated. For forest owners, a claim that their forests are managed to a defined standard can help them to sell timber to their immediate customers, to win public recognition and support, and in some cases to secure loans and investments and aid funding for management. For forest products manufacturers and retailers of wood products, a claim that their products are made from trees grown in such forests can give them a marketing edge or help in their public relations activities. Provision of a verifiable basis for making environmental claims has been one of the main reasons for the growth in forest certification.

7.1 What is an environmental claim?

ISO considers the overall goal of environmental labels and declarations to be: *'through communication of verifiable, accurate information, that is not misleading, on environmental aspects of products, to encourage demand for and supply of those products that cause less stress on the environment, thereby stimulating the potential for market-driven continual environmental improvement'* (ISO 1999b). Claims related to certified forests fall within the ISO definition of an environmental label or declaration (Box 7.1). These can take different forms. For a business-to-business transaction the purchaser may require only a verifiable statement from the supplier. A company selling to the public may require a label on the product for simple and effective communication to its customers.

ISO recognises a number of different types of environmental claim as described in Box 7.1. A claim about the quality of forest management, or that a product (or part of it) originates in certified forests, does not fall into any of ISO's three categories of environmental claim. This is because although they fulfil most of the criteria for Type I claims, forest certification schemes address only one aspect of the product life cycle – namely production of the raw material (Vallejo & Hauselman, 2000).

Box 7.1 **ISO Definitions of environmental labels and claims**

An environmental label or environmental declaration is a:

'Claim which indicates the environmental aspects of a product or service. NOTE An environmental label or declaration may take the form of a statement, symbol or graphic on a product or package label, in product literature, in technical bulletins, in advertising or in publicity, amongst other things.' ISO 14020 Clause 2.1 (ISO 1998)

Types of environmental claims:

- **Type I – Environmental labelling programme (ISO 14024)** Voluntary, multiple-criteria-based third party programme that awards a licence which authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations (ISO, 1999a).
- **Type II – Self declared environmental claim (ISO 14021)** Environmental claim[1] that is made, without independent third-party certification, by manufacturers, importers, distributors, retailers or anyone else likely to benefit from such a claim (ISO, 1999b).
- **Type III – Environmental declaration (ISO/TR 14025)** Quantified environmental data for a product with pre-set categories of parameters (ISO 2000a). They are based on independently verified[2] systematic data presented as a set of categories of parameter. The information is presented in a format that facilitates comparison between products.

[1] Statement, symbol or graphic that indicates an environmental aspect of a product, a component or packaging (ISO 1999b)

[2] Independent verification for the purpose of Type III environmental labelling need not necessarily involve certification.

Claims need to be credible, otherwise they will not be effective. Claims that are not truthful or that are misleading will not achieve the claimant's objectives in the long run and may have damaging impacts. Environmental claims do not have a particularly good track record in this regard, with several cases of 'greenwash' (unsubstantiated claims of the environmental credentials of a product or company made for commercial advantage). This has led to the production of various guidelines dealing with environmental claims, such as the UK Green Claims Code (DETR, 2000) and ISO guidance.

A great deal of the credibility of a claim will depend upon the preceding aspects of the certification: the standards, certification and accreditation. In addition to these, there are two areas specific to the claim itself that are necessary to maintain credibility. These are the content of the claim and verification of the claim.

7.2 Content of claims

7.2.1 General principles governing claims

As has been noted already, claims can serve many different purposes; but whatever the motivation for making a claim there are a number of principles that have been developed by ISO and that need be considered[5]. ISO's general principles for environmental labels and declarations (ISO 2000b) are set out in Box 7.2.

7.2.2 Specific issues for claims about certified forests and products from certified forests

The principles derived from ISO 14020 in Box 7.2 are relevant to claims about certified forests and products from certified forests. There are however, a number of issues that are of particular importance to forest certification schemes:

Box 7.2 **ISO 14020 Environmental labels and declarations — General principles**

Principle 1 Environmental labels and declarations shall be accurate, verifiable, relevant and not misleading.

Principle 2 Procedures and requirements for environmental labels and declarations shall not be prepared, adopted, or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade.

Principle 3 Environmental labels and declarations shall be based on scientific methodology that is sufficiently thorough and comprehensive to support the claim and that produces results that are accurate and reproducible.

Principle 4 Information concerning the procedure, methodology, and any criteria used to support environmental labels and declarations shall be available and provided upon request to all interested parties.

Principle 5 The development of environmental labels and declarations shall take into consideration all relevant aspects of the life cycle of the product.

Principle 6 Environmental labels and declarations shall not inhibit innovation which maintains or has the potential to improve environmental performance.

Principle 7 Any administrative requirements or information demands related to environmental labels and declarations shall be limited to those necessary to establish conformance with applicable criteria and standards of the labels and declarations.

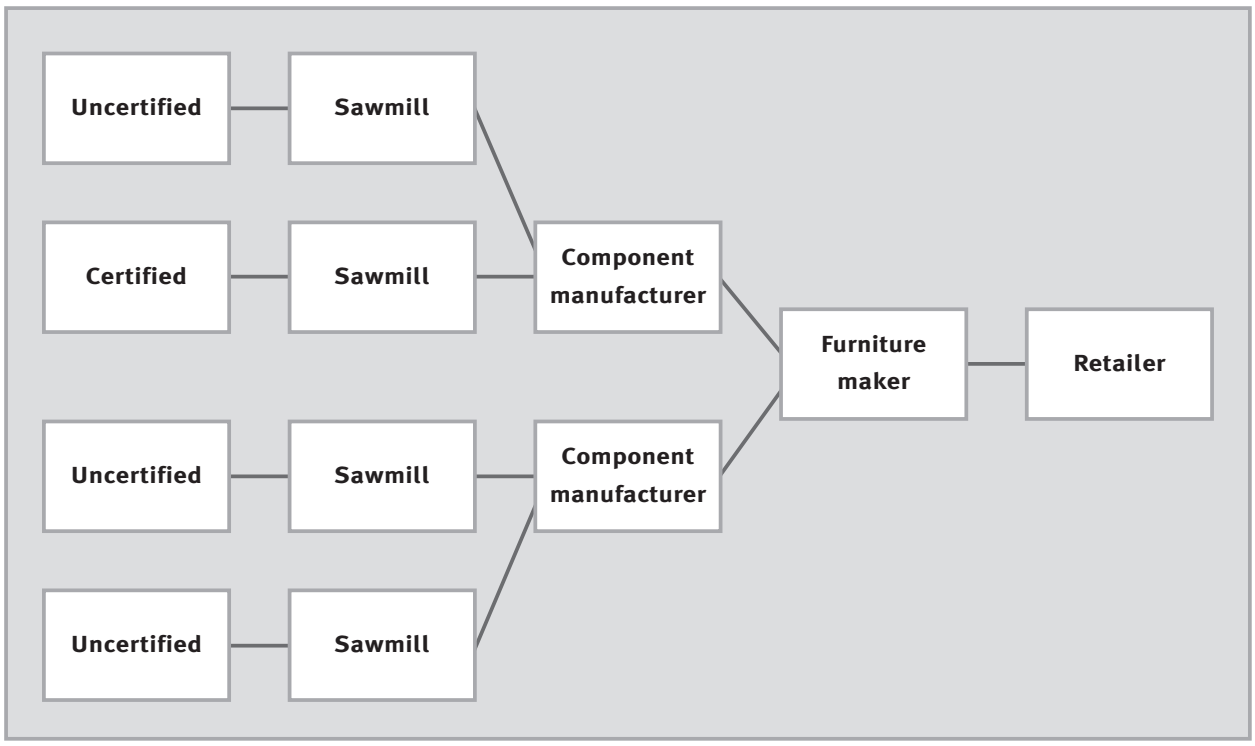
Principle 8 The process of developing environmental labels and declarations should include an open, participatory consultation with interested parties. Reasonable efforts should be made to achieve a consensus throughout the process.

Principle 9 Information on the environmental aspects of products and services relevant to an environmental label or declaration shall be available to purchasers and potential purchasers from the party making the environmental label or declaration.

[5] ISO is not the only organisation to have developed principles or guidelines related to environmental claims. National governments have done this, for example the United Kingdom Green Claims Code (DETR, 2000), and the European Commission is currently considering a proposal for European Union guidelines.

- **Accuracy of claims** In addition to Principle 1 of ISO 14020, ISO 14021 Clause 5.3 states that *'an environmental claim that is vague or non-specific or which broadly implies that a product is environmentally beneficial or environmentally benign shall not be used. Therefore, environmental claims such as "environmentally safe", "environmentally friendly", "earth friendly", "non-polluting", "green", "nature's friend" and "ozone friendly" shall not be used.'* Transposing this guidance for forest certification schemes it seems reasonable to conclude that claims should be limited to the fact of certification against a particular standard or set of rules and that claims such as 'well managed forest' or 'from responsibly managed forests' are ruled out by the guidance. Claims of sustainability are also ruled out as ISO 14021 Clause 5.5 states that *'the concepts involved in sustainability are highly complex and still under study. At this time there are no definitive methods for measuring sustainability or confirming its accomplishment. Therefore, no claim of achieving sustainability shall be made.'* This guidance would appear to rule out a claim that a forest is 'sustainably managed' or that the wood in a product comes 'from sustainable managed forests'.
- **Percentage-based claims** Some product labelling schemes linked to forest certification allow claims to be made about products that are manufactured from wood, less than 100% of which comes from (or has been verified as coming from) certified forests (FSC 2000, PEFC 2001). Principle 1 of ISO 14020 requires that claims are accurate, and although ISO have no specific guidance relating percentage-based claims for certified material, the guidelines for claims about recycled content (ISO 14021) are relevant.
  - *Where a claim of recycled content is made, the percentage of recycled material shall be stated.* (Clause 7.8.2.1).
  - *If a symbol is used for a recycled content claim, it shall be… accompanied by a percentage value stated as 'X %', where X is the recycled content expressed as a whole*

Figure 7.1 **Chain of custody for furniture sold in a retail store**



number calculated in accordance with 7.8.4. The percentage value shall be located either inside [the symbol] or outside and immediately adjacent to [the symbol] (Clause 7.8.3.2).

– *If the percentage recycled content is variable, it may be expressed with statements such as 'at least X %', or 'greater than X %'* (Clause 7.8.3.3).

Applying this guidance to product labels associated with forest certification schemes, it seems reasonable to require such labels to state the percentage of the wood fibre in a product (or batch) that comes from certified forests.

- **Product life cycle** As noted in Section 7.1, current forest certification schemes cover only the production of timber, and make no environmental claims about other parts of the manufacturing and transportation process. This is contrary to Principle 5 of ISO 14020, and therefore requires that the claims made about products containing raw material from certified forests must pertain only to the management of the forests and not to other environmental aspects of the production process.

Key factor Claims that are made about the quality of management in a forest or that wood in a product comes from certified forests should comply with the general principles of ISO 14020 and relevant specific guidance contained in ISO 14021 and ISO 14024.

7.3 Verifying claims

In order to ensure the credibility of the claims made about forest certification it is essential that claims can be verified (ISO 14020, Principle 1). Claims about the quality of management in specific forests are verified during the certification process. However, processors and retailers of wood products require additional systems to be operational in order to be able to label or make declarations about the origin of the raw material. This is because once the timber leaves the forest gate it may go through a range of manufacturing processes before it becomes a final product. Timber, or wood products, may be bulked with other raw material (certified or not), divided into separate loads, may change ownership more than once and may be processed and reprocessed. At each stage in the process, verification is required that any wood being classified as 'certified' really did originate from a certified forest. The nature of the claim may consequently be that all of the timber in the final product derives from a certified forest, or that a proportion of the wood in a product or batch of products comes from certified forests. The chain of supply, or chain of custody, from forest to consumer, requires separate verification in order for producers and retailers to be able to make credible claims.

Figure 7.1 shows a typical supply chain for furniture sold in a retail store. The store buys the furniture from a supplier who assembles the furniture using components made by several manufacturers. The components manufacturers buy timber from several sawmills, one of them using 100% certified timber, the others using 100% non-certified timber.

The furniture maker has been asked by the retailer to label the product with a claim about forest management certification. The furniture maker decides that the most meaningful claim that can be made is that a certain minimum percentage of the wood in the product comes from certified forests. Verification of the claim requires checks at every stage in the supply chain of the raw materials that make up the certified percentage and checks on the manufacturing process. The checks may be made by the company that is making the claim and for some customers this may be sufficient. Other customers will want the added assurance of third party certification.

7.3.1 Certification of chain of custody

The basic components of chain of custody certification are the same as for forest management certification: a standard, accreditation and certification. The ISO guidance on accreditation

and certification referred to earlier in relation to forest management certification is equally relevant to chain of custody certification. The standard sets out the procedures that a company must implement to ensure that a claim is truthful and verifiable. The essence of the content of the standard will be to ensure that wood being classified as 'certified' really did originate from a certified forest at each stage of processing and with each change of ownership. This is achieved through ensuring that certified products remain identified, segregated and that relevant documentation is maintained (Box 7.3).

Key factor Claims about the origins of the wood contained in a product must be supported by effective chain of custody certification. The elements of chain of custody certification are the standard, certification and accreditation. The content of the standard should cover product identification, product segregation and documentation.

Box 7.3 **Outline standard for chain of custody certification**

1 Product identification

- All products derived from certified forests, or manufactured from products derived from such sources must be clearly identified.
- Procedures must be in place to control the marking of certified products.

2 Product segregation

- All products from certified forests, or manufactured from products derived from such sources must be segregated from other products.
- Procedures must be in place to control the segregation of certified products.

3 Documentation

- Records must be maintained relating to certified product, and in particular:
  - purchase records
  - stock records
  - production records
  - sales records
  - transport documentation
  - records of flow of materials through the production process.

8 A FRAMEWORK FOR ASSESSING FOREST CERTIFICATION SCHEMES

As we discussed in Section 1 of this paper, to make a systematic and clear assessment of whether or not a certification scheme is acceptable involves the following stages:

- Decide what objectives an acceptable scheme needs to deliver.
- Establish which elements of a certification scheme will influence whether or not the objective is met.
- Establish the way each of the identified elements will need to be designed in order to deliver the objective.
- Assess candidate certification schemes to see if they are adequately designed.

This section provides a framework for anyone wishing to work through this process.

Deciding on objectives This was discussed in Section 2, and is an essential foundation to further analysis. Each user will have their own objectives and their own priorities and need to be clear about these before beginning the assessment process.

Linking objectives to certification scheme content and design Sections 3–7 looked at certification schemes in detail and discussed the way each element could be designed. As we established in the introduction, certification is a technical and complex process and so we have provided a checklist in four parts to help users go through the process of linking their objectives to certification schemes. This checklist, which is based on the content of Sections 4–7, should help with two stages in the process of comparing forest certification schemes:

- Firstly, identifying which elements of the scheme are particularly important. This can be done by checking the relevant element in the checklist.
- Secondly, deciding how these elements need to be designed to deliver their objectives. We have included the **key factor** from the relevant subsection to help to remind users of the discussion. This then provides a basis for users to note their requirements for the design of each element.

Assessing candidate certification schemes

Once the checklist has been completed, it should serve as a clear basis for:

- assessing candidate schemes in a systematic, objective and repeatable manner
- providing a clear and logical justification for why some schemes are accepted and others not.

We realise that to go through the process set out above will be lengthy and complex, but it is the only one we have been able to identify which provides an objective methodology for assessing forest certification schemes.

Please note: Numbers given in brackets in the following checklist refer to sections in this publication.

8.1.1 **Standards checklist** (sheet 1 of 2)

Component		Key factor	Relevant or not?	Specific design requirements
General	ISO and WTO (4)	In assessing a standard it is important to establish that both the process and the content meet ISO Guidelines. It may also be useful to be aware of WTO requirements.		
Standards development process (4.1)	Who is involved in developing the standard? (4.1.1)	There should be defined requirements for the composition of the standard-setting group which will ensure appropriate input of both best available knowledge and decision-making.		
	How does the standard-setting group work? (4.1.2)	There should be defined requirements for the process used by the standard-setting team to reach decisions which will ensure that the way gaps in information are addressed and conflicting requirements are balanced is appropriate.		
Content of standards (4.2)	Types of standard: system and performance (4.2.1)	The choice of a system or performance standard will depend on what the cert-ification scheme is expected to deliver: a framework for management or a guaranteed minimum level of performance or a combination of both.		
	Performance requirements (4.2.2)	The precise requirements of a performance standard are extremely important in determining what a forest certification system delivers. The broad range of issues which should be covered can be found in a number of international processes, but there is no single internationally-agreed set of criteria with broad support against which standards can be assessed. There are three ways of overcoming this difficulty in order to assess standards: • develop a detailed set of requirements to which the standards used by candidate schemes can be compared • base the assessment on the process used to formulate the standard rather than the standard itself in which case the degree of participation in this process becomes critical • use a combination of defined requirements and assessment of the standard-setting process.		

8.1.1 **Standards checklist** (sheet 2 of 2)

Component		Key factor	Relevant or not?	Specific design requirements
	How is the standard written? (4.2.4)	It is important to ensure that standards are clearly and precisely written, and that where there is a need to allow flexibility, adequate guidance is provided to certification bodies.		
	Applicability (4.2.5)	It is important to be clear before assessing a scheme what type and area of forest it applies to, and that an appropriate mechanism is in place to control this.		
Small Forest Enterprises (SFEs)(4.3)		Is there a mechanism to ensure that the standard does not act as a barrier to certification for SFEs?		

8.1.2 **Certification checklist** (sheet 1 of 3)

Component		Key factor	Relevant or not?	Specific design requirements
Establishing that the standard has been met: People and organisations responsible (5.1.1)	Type of organisation running the process (5.1.1.1)	There are three main issues to consider when looking at who is responsible for the certification process. Firstly, does the scheme require certification to be undertaken by an independent, third party certification body or is first or second party assessment accepted. Secondly, is there a requirement for the certification body to meet ISO guidelines. Finally, is there a requirement for accreditation.		
	Assessment team (5.1.1.2)	There are three important questions to ask about an assessment team. Firstly, is the team leader adequately trained as an assessor? Secondly, do the team have the combined expertise to assess all aspects of the standard? Thirdly, do the team have the capacity to adequately interpret the standard for the forest being assessed?		
Establishing that the standard has been met: Assessment methodology (5.1.2)	Use of objective evidence (5.1.2.2)	For all assessments it is important to establish not only that plans are assessed, but also that there is collection of objective evidence that the plans are implemented in practice. In addition, for performance standards, it is essential that objective evidence is collected to establish whether the outcome is adequate to meet the performance requirements of the standard.		
	Sampling (5.1.2.3)	When assessing a certification scheme it is very important to assess: • the size or proportion of the sample which is used, relative to the total population, and the justification for that size • the way in which samples are chosen to ensure statistical validity and avoid introducing unnecessary bias.		

8.1.2 **Certification checklist** (sheet 2 of 3)

Component		Key factor	Relevant or not?	Specific design requirements
Establishing that the standard has been met: Making the decision (5.1.3)	Interpret-ation of the standard (5.1.3.1)	It is important to establish that the issue of local interpretation of the standard is adequately addressed. The degree of interpretation will depend on: • the precision of the standard relative to the forest types included in the scheme • the complexity and size of the forest being assessed • the previous experience of using the standard and the degree of prece-dence which exists.		
	Non-compliances (5.1.3.2)	When assessing a certification scheme, it is very important to check how non-compliances are categorised and to ensure that it is appropriate. It is also important to see how progress by a certified organisation in addressing minor non-compliances is monitored by the certification body.		
	Decision-making process (5.1.3.3)	When assessing a certification scheme it is important to ensure that it has a certification decision-making process which meets ISO guidelines and ensures that the final decision is based on an adequate under-standing and analysis of the objective evidence.		
	Surveillance (5.1.3.4)	Certification schemes must include the requirement for regular and adequate monitoring of certificate holders and mechanisms to remove certificates if the standard is no longer being met or if Corrective Action Requests (CARs) have not been met.		
Ensuring confi-dence in the process and decision (5.2)	Accreditation (5.2.1)	Credible accreditation is fundamental to credible third-party certification.		
	Complaints proce-dures (5.2.2)	Certification bodies should have documented procedures which, when implemented, are able to resolve any complaints, appeals and disputes.		

8.1.2 **Certification checklist** (sheet 3 of 3)

Component		Key factor	Relevant or not?	Specific design requirements
Transparency (5.2.3)	Information on the certification body (5.2.3.1)	There should be a requirement that the information on certification bodies suggested by ISO is made available to interested parties.		
	Consultation and participation (5.2.3.2)	The degree of consultation required as part of the certification process should be clearly defined, based on the need to interpret the standard, collect objective evidence and boost credibility. Issues of diversity and representativeness of those consulted, the effectiveness of the consultation methodology used, and the particular case of small forest enterprises should be considered.		
	Publicly available information (5.2.3.3)	Provision of information on the results of the assessment can contribute significantly to transparency, but reduces confidentiality for the forest manager and increases cost.		
Certification of small forest enterprises (5.3)		Is there an effective and credible mechanism for ensuring that the certification process is available to SFEs at a reasonable cost through mechanisms such as group certification schemes?		

8.1.3 **Accreditation checklist** (sheet 1 of 1)

Component		Key factor	Relevant or not?	Specific design requirements
Requirements for accreditation bodies (6.1)	Accreditation body organisation (6.1.1)	An accreditation body should conform to the organisational requirements set out in ISO/IEC Guide 61.		
	Accreditation procedures (6.1.2)	Accreditation bodies must have in place a structure for the accreditation process that is adequate to ensure that it makes reliable and competent decisions.		
	Competence of accreditation body personnel (6.1.3)	Accreditation bodies for forest certification must specify minimum competencies for assessment staff, ensure the competencies include relevant forestry and forest certification qualifications, knowledge and experience, and must have adequate recruitment, training and continuous professional development procedures.		
	Accreditation assessment methodology (6.1.4)	An accreditation body's evaluation procedures must ensure that accreditation decisions are supported by sufficient objective evidence.		
	Geographical scope of accreditation (6.1.5)	The geographical scope of the accreditation should meet the needs of the user for national, regional or international coverage. The accreditation methodology should be specifically designed for the geographical scope provided.		
Requirements for certification bodies (6.2)		Accreditation bodies must specify the requirements that certification bodies must meet. These should include the generic requirements set out in ISO/IEC Guides 62 and 65 and requirements specific to certification of forest management.		
Confidence in accreditation (6.3)	Affiliation to international bodies (6.3.1)	A useful indicator of an accreditation body's credibility is affiliation to an international organisation that is open to it.		
	Complaints procedures (6.3.2)	Accreditation bodies should have documented procedures for resolving complaints, appeals and disputes.		
	Transparency (6.3.3)	Transparency in accreditation can make certification schemes more credible. In deciding the appropriate level of transparency, a balance has to be struck between the requirements of external stakeholders on the one hand and additional cost and loss of confidentiality on the other.		

8.1.4 **Claims checklist** (sheet 1 of 1)

Component		Key factor	Relevant or not?	Specific design requirements
Content of claims (7.2)		Claims that are made about the quality of management in a forest or that wood in a product comes from certified forests should comply with the general principles of ISO 14020 and relevant specific guidance contained in ISO 14021 and ISO 14024.		
Verifying claims (7.3)	Certification of chain of custody (7.3.2)	Claims about the origins of the wood contained in a product must be supported by effective chain of custody certification. The elements of chain of custody certification are the standard, certification and accreditation. The content of the standard should cover product identification, product segregation and documentation.		

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