

society, as well as the more traditional consideration of effects on natural resources.

In New Zealand the Resource Management Act and the forestry sector's own principles look for a desirable balance between ecological, social and economic considerations. Perhaps the following comment from a recent resource consent applicant submission illustrates the elusive nature of that balance:

"All we ask is that the same consideration that has been accorded to iwi and ... frog be accorded to the ... residents."

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Professional registration*

B. Manley**

Summary

The New Zealand Institute of Forestry (NZIF) implemented a registration process for members on October 1, 1996. This has evolved from the NZIF Consultant Recognition Scheme which was started in 1966 and which grew successfully to the extent that there were 86 Recognised Forestry Consultants at the transition date. An important feature of the Registration Scheme is that all Full Members can apply for Registration. Registered Forestry Consultants are a subset of Registered Members – i.e. those Registered Members who provide consultancy services to the public.

The NZIF Registration Scheme represents an important step forward in the development and promotion of professional standards in New Zealand forestry. It reflects a response by the NZIF to the need for an increased level of quality assurance on the advice and practice being offered within the forestry sector.

Introduction

The issue of professionalism was a theme of the New Zealand School of Forestry 25th Anniversary Conference in 1995. At that conference Sutherland (1996) described the characteristics of professionalism at the level of both the individual and the Institute. He described four broad characteristics required by a professional:

- Competent – by virtue of initial education and training followed by continuing professional development.
- Responsible – take personal responsibility for decisions and actions.

- Ethical standards – imposed by a code of ethics.

- Service – to humanity through responsible application of knowledge and skills.

He suggested that the roles of a professional institute are:

- Gatekeeping – to prescribe, determine and accredit qualifications for membership of the institution.
- Maintaining standards – to enhance the practice of the profession.
- Facilitating information transfer – to obtain and share information and knowledge about the profession and related professions.
- Provision of member services.
- Promoting the profession.

At the same conference, Galbraith (1996) noted the need for an increased level of quality assurance on the advice and practice being offered within the forestry sector. He also referred to "calls for the NZIF to offer higher standards of protection for the public, including those interested in investing in the industry as well as those using forestry services for harvesting and marketing of existing investments".

This paper describes how the NZIF has responded to these calls by the implementation of a professional registration process. The evolution from a consultant recognition scheme is reviewed, and the recently-enacted NZIF Registration Scheme is described and compared with overseas registration models.

NZIF Consultant Recognition Scheme

The NZIF's concern about maintaining the standard of forestry consultants resulted in the initiation in the 1960s of a Consultants Recognition Scheme. Groome (1996) records that "following a four-year period of doubt and debate" the first Forestry Consultants (Viv Fail and John Groome) were recognised in 1966.

He also notes that "the protection of the public's interest was given more importance than the protection or promotion of the practitioner".

Eligible members were, depending on their experience and expertise, recognised either as General Forestry Consultants or Specialist Forestry Consultants. General Forestry Consultants were recognised as having expertise over the broad range of forestry disciplines, whereas Specialist Forestry Consultants were recognised in specified disciplines.

The Recognition Scheme was administered by the NZIF Consultants Committee supported by a Registrar who maintained the register of Recognised Forestry Consultants. An important feature has been that recognition has been available only to individuals and not corporate bodies. Groome (1996) comments that "in the early 1980s a very strong move to have companies 'recognised' was forestalled in favour of individuals only having to bear full responsibility for their advice".

The number of Recognised Forestry Consultants has increased steadily since the inception of the Scheme with a marked increase since 1990 (Fig. 1). This recent increase reflects a number of factors including:

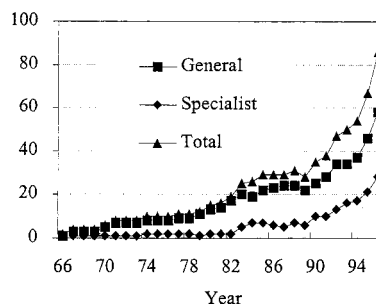


Figure 1. Number of NZIF Recognised Forestry Consultants

* This is a reproduction of a paper published in the Proceedings of the ANZIF Conference, April 21-24, 1997, Canberra.

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Change in Forest Ownership

The corporatisation and subsequent privatisation of the State plantations since 1987, together with the restructuring of many companies, has changed the employment status of many individuals and provided considerable consultancy opportunities in areas such as forest valuation. Related to this has been a trend for many companies to out-source a range of services rather than directly employ staff.

New Land Planting

Since 1992 there has been a substantial increase in the area of new land planted in New Zealand (Fig. 2). A feature of this has been the increasing role of non-corporate investors. For example, the Ministry of Forestry estimates that non-corporate investors carried out 77% of the 81,500 ha of new forest plantings in 1996.

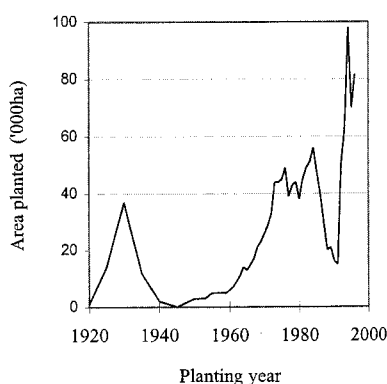


Figure 2. New land planted in production forest in New Zealand.

The increased plantation area and associated activity has provided consulting opportunities. However, the increasingly diverse ownership of forests in New Zealand forests means that many individuals are making an investment in forestry with limited personal knowledge. This has important implications for the NZIF and provides additional motivation for the 'quality assurance' of professionals.

Rejuvenation of the NZIF

The NZIF went through a difficult time in the 1980s with the demise of the New Zealand Forest Service which had dominated New Zealand forestry. There was a period when resignations from the NZIF outstripped new member applications. This trend has been totally reversed in recent years, with an increasing awareness in the sector of the value of the NZIF.

Features of the Consultant Recognition Scheme

To be eligible for inclusion in the Register of Forestry consultants an individual had to:

- be an Honorary Member, Fellow or Full Member of the NZIF;
- have completed a formal course in some branch of forestry or an allied

discipline (General Forestry Consultant), or have adequate qualifications for his/her chosen field (Specialist Forestry Consultant);

- have completed at least five years' field experience (two years in New Zealand for General Forestry Consultants);
- have reached a position of responsibility or to have made important contributions to forestry;
- hold personal liability for advice;
- declare an intention to abide by the NZIF Code of Ethics;
- be or have been a resident of New Zealand;
- charge an economic fee; and
- be available for consultation.

A feature of the scheme was that it was deliberately set up as one of Recognition rather than Registration. This reflected the perception that registration would require statutory backing. There has been extended debate over membership criteria and whether the NZIF should seek to become a chartered organisation which would have permitted statutory registration. To avoid possible confusion a recognition scheme was adopted.

The Road to Registration

In 1993, the Consultants Committee initiated a review of the Consultants Recognition Scheme to consider changing it to a registration process as a means of strengthening it. Circumstances had changed since the scheme was initiated. For example, as the policy of successive Labour and National Governments was towards deregulation, there was little likelihood of the NZIF getting statutory backing for registration. However there was a greater awareness that a registration scheme could be set up under the rules of the NZIF just as the New Zealand Society of Farm Management had done with the creation of a Farm Management Consultants Registration Board in 1992.

There had also been concerns expressed by the Consultants Committee about the interpretation of some of the eligibility criteria for recognition. The requirement that an individual must hold personal liability for advice given had been interpreted by previous Consultants Committees as excluding employees of corporations from being eligible for recognition. The requirement that an individual had to be available for consultation was also the cause of debate. In 1993, the view of the Consultants Committee was that employment status and availability were not measures of professionalism. Consequently, any new process should not use them as eligibility criteria and should focus on qualifications, skill and competency.

The Consultants Committee released a draft discussion paper on 'Conversion of the Consultants Recognition Scheme to a

Registration Scheme' which stated that the objectives of a registration scheme were to:

- provide a means for individual members to be able to be recognised by their peers as both qualified and able to practise the skills of forestry for the public at large;
- provide the public with protection;
- have a distinctive, professional image in the public perception; and
- provide Registered Forestry Consultants with a legally protected title viewed with status by their peers.

Certainly the first three of these objectives had been generally well met by the Recognition Scheme. However, it was felt that converting it to a registration scheme provided the opportunity to strengthen it in terms of title, underlying process, and promotion.

There was general support for the change from Recognised Forestry Consultants but the process was broadened following feedback from a survey of NZIF members in 1994. As part of this survey members were asked (i) whether they supported the establishment of a registration system for consultants; and (ii) whether they wanted a registration system to be available to all full members. There was a strong positive response to both these questions (Table 1). As a consequence, Council resolved to develop a registration system not just for consultants but also for full members.

Table 1. Support for registration (% of respondents, 1994 membership survey)

Opinion	For Consultants	For Full Members
Agree	77	65
Neutral	14	22
Disagree	9	13

The New NZIF Membership/Registration Model

After two years of drafting, debate and revision a new NZIF Membership/Registration Model (Fig. 3) was ratified at the 1996 AGM. The main difference between the new model and the old model is the replacement of Recognised Forest Consultants by a new Registered Member category of which Registered Forestry Consultants are a subset.

Eligibility for Registration

To be eligible for Registration an individual has to:

- be an Honorary, Fellow or Full Member of the NZIF;
- have passed a formal course of a standing recognised by the Registration Board in some branch of forestry or an allied discipline;
- have completed at least five years' field experience (at least two years in New Zealand) and reached a level of

expertise recognised by the Board;

- display an understanding of the basic principles underlying the forestry process involved in the Member's particular area of qualification and expertise, to an extent that allows interpretation and application to different situations that may reasonably be expected to be encountered in the course of the Member's endeavours;
- have undertaken ongoing continuing professional development (CPD) for a minimum period of three years preceding application; and
- declare an intention to abide by the NZIF Code of Ethics.

Registered Members who provide consultancy services to the public must obtain the extension 'Registered Forestry Consultant' to their registration. An additional requirement for this is coverage by suitable professional indemnity insurance.

Registration Process

A Registration Board administers the process. The Board has six members: a Chairperson who is a member of, and appointed by, Council; two members elected by Registered Forestry Consultants; two members elected by other Registered Members, Full Members and Fellows; and one invite member from a sister organisation (currently a member of the NZ Institute of Valuers). The Board is supported by a Registrar and the NZIF Secretariat.

All applicants have their names published in New Zealand Forestry. Any member of the NZIF may object to any application for registration by writing to the Registrar and specifying the grounds of the objection.

Applicants appear before the Registration Board (or a panel of it) and are orally examined on:

- technical issues relating to their area of practice;
- professional forestry practice as illustrated by a range of the applicant's reports covering projects undertaken;
- professional practice values including the NZIF Code of Ethics;
- their commitment to ongoing learning to ensure knowledge and skills are maintained and updated.

The Registration Board subsequently decides whether to grant the application for registration.

Maintaining Registration

There is an ongoing CPD requirement of at least 20 hours per year for all Registered Members. CPD is defined by the NZIF as the "systematic and structured learning that professionals undertake throughout their careers to ensure that they continually maintain and enhance their knowledge and skills and improve the quality of service they offer". This definition is broad and allows members to

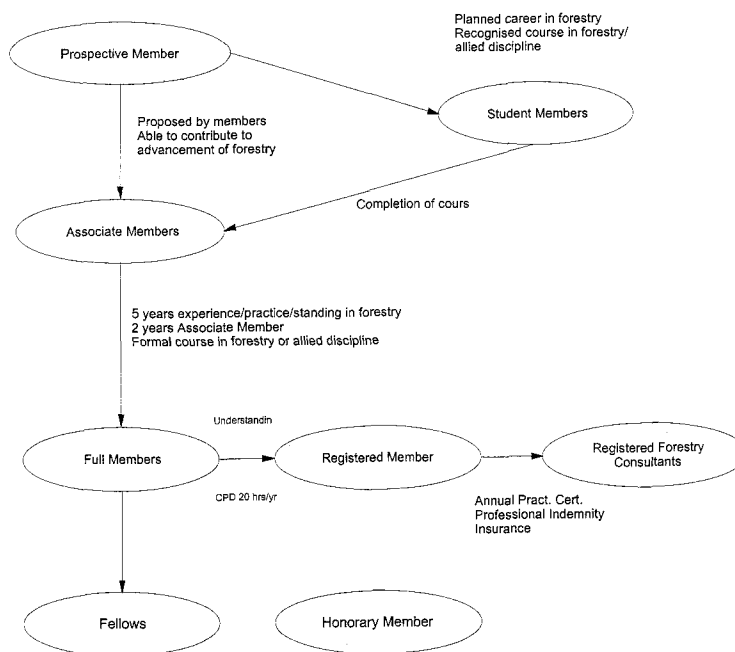


Figure 3 – New NZIF membership registration model.

focus on learning that is relevant to their particular work situation and career stage.

Registered Members, including Registered Forestry Consultants, are required to forward annually to the Registrar a statement of CPD activities undertaken in the preceding 12 months together with a reaffirmation of compliance with the Code of Ethics. Registered Members will be issued with a Compliance Certificate, while Registered Forestry Consultants (who also have to provide proof of professional indemnity insurance) will be issued with an Annual Practising Certificate.

Review Process

Review of registration will take place at two levels. There will be an annual audit, on a random basis, of a sample of the statements of CPD activity furnished by Registered Members. In addition there will be a full review of each Registered Member on a five-yearly basis.

Disciplinary Process

A formal disciplinary process has been established to deal with any complaints received against Registered Members. This includes a panel of investigators to investigate complaints and a separate disciplinary committee to determine whether the member complained against has been guilty of misconduct in a professional respect or has breached the Code of Ethics.

Other Features

Other important features of the Registra-

tion Scheme are:

- registration is available to all Full Members and Fellows, not just consultants;
- there is no differentiation between General and Specialist Forestry Consultants. Rather, the onus is on individuals to abide by the Code of Ethics and "represent his/her competence only in a truthful and dignified manner and not, without disclosing his/her limits, undertake work beyond it";
- a requirement for consultants who are members of the NZIF to become registered or to stop using the designation forestry consultant. This change has caused some debate but has been made because there was a feeling that the Consultants Recognition Scheme was devalued to some extent because some members were calling themselves consultants without going through the formal recognition process;
- legal protection of the title 'Registered Forestry Consultant' is being sought through application for a Trade Mark.

With the philosophy and mechanics of the new scheme developed, the focus is now on promotion of the scheme. As observed by Groome (1996), "formal registration of professional foresters having now been achieved, the next step is to ensure that the public are well informed of their existence".

Overseas Experience

It is interesting to observe where the NZIF Registration Scheme fits on the interna-

tional spectrum of membership/registration models. Some examples:

Australia

The Institute of Foresters of Australia (IFA) has a membership structure that consists of Honorary Members, Fellows, Members, Student Members, and Associates. The following are eligible for admission as Members:

- any person holding a degree in forestry of a University recognised by the Council;
- any person who holds a tertiary qualification in forestry acceptable to Council from an Institution acceptable to Council;
- any person holding an appropriate tertiary qualification acceptable to Council of an Institution acceptable to Council and who is engaged in forest management or forest science.

The Association of Consulting Foresters of Australia Incorporated (ACFA) operates under the Associations Incorporation Act 1991. Eligibility for full membership of the Institute of Foresters of Australia is a prerequisite for membership of the ACFA. To be eligible for full Membership a person must be practising regularly as a Consulting Forester and have had at least five years' practical experience in forestry including the equivalent of 12 months' consulting experience. Members must comply with the Association's Code of Ethics.

Currently the issue of professional registration of foresters in Australia is being reviewed. The IFA is considering a process to register professional foresters while the IFA and ACFA are jointly looking at the accreditation of forestry consultants. Principles for these processes are now under debate.

United Kingdom

The Institute of Chartered Foresters (ICF) was founded in 1925 as the Society of Foresters of Great Britain and incorporated by Royal Charter in 1982. Membership categories include Associate Member, Ordinary Member and Fellow. Only Ordinary Members and Fellows are entitled to use the title 'Chartered Forester'. To advance from Associate to Ordinary member, an individual must have two years' experience and must pass examinations. Part I, which involves three papers, can be waived if an applicant has suitable academic qualifications. Part II involves a practical examination, generally a report on a field case study together with an oral exam.

Chartered Foresters can be recorded as a Member in Consultancy Practice on the ICF Register of Members subject to holding professional indemnity insurance. The Register also shows those members hav-

ing a contractual affiliation with companies engaged in forestry and allied business. All members of the ICF are bound by the Code of Ethics.

One feature of the ICF is that individuals can be Associate Members for a maximum period of ten years – at this stage they must either seek advancement to Ordinary Membership or resign. This is to stop individuals who are not fully qualified retaining benefit from the Charter.

The ICF has mandatory CPD requirements. Individuals are required to undertake a minimum of 100 hours of CPD over any three-year period including up to 25 hours of unstructured learning – for example, reading professional, technical and financial material. The balance of 75 hours is structured CPD including attendance at meetings, seminars and courses, authorship of published and technical work, and membership of ICF Committees, Examination Boards and Panels.

California

The State of California has a Professional Foresters Law which covers the Registration of Professional Foresters. The Law provides "for the regulation of persons who practise the profession of forestry and whose activities have an impact upon the ecology of forested landscapes and the quality of the forest environment...". The law applies to both public and private foresters.

Professional forestry work must be carried out under the supervision of a Registered Professional Forester (RPF). This includes the provision of advice to, or management for, employers, clients or others through consultation.

Registration is administered by the State of California Board of Forestry, a Governor-appointed body within the Department of Forestry. Eligibility criteria include:

- being a good moral character and having a good reputation for honesty and integrity;
- a Bachelor of Science degree or equivalent, with a major in forestry;
- seven years' forestry experience (with the degree counting as four of these years);
- successfully passing a professional examination.

Instead of being registered as a professional forester, an applicant may request to be registered as a certified specialist in one or more fields of forestry.

There is no CPD requirement to continue as a RPF. Nor is there any Code of Ethics to adhere to. However the Professional Foresters Law lists grounds for disciplinary action which include "deceit, misrepresentation, fraud, material misstatement of fact, incompetence, or gross

negligence".

British Columbia

The Association of British Columbia Professional Foresters (ABCPF) operates a statutory registration scheme under the Foresters Act of British Columbia. First passed in 1947 and substantially amended in the early 1970s and again in 1994, this legislation "... recognises and defines the 'practice of forestry', establishes the profession and the association," then says that "to use the title 'Registered Professional Forester' (RPF) and to practise forestry one must be a member of the ABCPF". Thus the legislation provides the ABCPF with both 'right to title' and 'right to practise'.

Only one other province in Canada, Quebec, has both. Three other provinces, Alberta, Ontario and New Brunswick, have only 'right to title' legislation. The remaining five provinces and the federal territories lack any legislation regulating the profession of forestry (E.V. Scofield pers. comm.).

Features of the British Columbia registration scheme are:

- Changes require approval of two-thirds of the ABCPF membership and amendment of the Foresters Act by the Provincial Legislature. This process takes two to three years even with good cooperation.
- Individuals who graduate from an accredited university forestry programme must enrol with the ABCPF and become Foresters-In-Training (FITS). They must gain at least two years' relevant work experience under the supervision of a sponsoring forester before sitting a four-hour registration exam. This consists of two parts: Part I covers the profession (Foresters Act, Code of Ethics, Professionalism) while Part II covers forest policy.
- The university accreditation process is managed on behalf of all the professional forestry associations in Canada by the Canadian Forestry Accreditation Board.
- Individuals who have not gone through an accredited forestry programme can enrol in a Forestry Pupil (FP) programme and complete the necessary courses to satisfy the ABCPF academic requirements. The ABCPF attempts to 'certify' or approve the providers of such education but is not happy with the system and is considering a shift to a 'qualifying exam' approach with the ABCPF setting an exam in most if not all subject areas.
- Currently the ABCPF has a voluntary CPD programme but is developing a mandatory programme (90 credit hours over a rolling three-year period) which it hopes to implement in 1998.

- Individuals are expected to conduct their affairs in compliance with the Foresters Act together with the ABCPF bylaws including the Code of Ethics.

Concluding Remarks

Table 2 summarises some of the key features of the different membership/registration models. The NZIF Registration Scheme fits midway along the spectrum of examples which have been considered in this paper. Given the current New Zealand regulatory environment and the broad membership base of the NZIF, this can be viewed as an appropriate place to be.

The NZIF Registration Scheme has been introduced to enable the professional knowledge and skills, high standards of professional conduct, and commitment to ongoing learning demonstrated by suitable practitioners to be recognised within the industry. It represents an important step forward in the development and promotion of professional standards in New Zealand forestry. However, registration cannot be considered in isolation from other activities of the NZIF. Other initiatives to develop professional standards include:

- the production of Guidelines for Investments in Forest Growing Projects;
- the establishment of a Working Group to make recommendations on the role of the NZIF, with respect to protection of both consumer interests and the standing of the profession, in forestry

Table 2: Key features of different membership/registration models

Feature	Australia		NZ	UK	California	BC
	IFA	ACFA	NZIF	ICF	RPF	ABCPF
<i>Criteria</i>						
Formal qualifications	✓	✓	✓	✓	✓	✓
Experience		✓	✓	✓	✓	✓
Knowledge and understanding/ professional exam.			✓	✓	✓	✓
Mandatory CPD			✓	✓		
Code of Ethics	✓	✓	✓	✓		✓
<i>Legal rights</i>						
Legal Right to Title			?	✓	✓	✓
Legal Right to Practise					✓	✓

investment promotion practices;

- the recent release of an Exposure Draft of Forest Valuation Standards. These have been developed to provide a set of standards and guidelines for the physical and financial description and the valuation of plantation forests.

Together these initiatives are meeting the roles of 'gatekeeping, maintaining standards and promoting the profession' suggested for professional institutes by Sutherland (1996). They can be seen as a positive step by the NZIF to provide an increased level of quality assurance on the advice and practice being offered within the forestry sector.

Acknowledgements

Thanks go to Ron Grose, Mike Koodi-

aroff, Van Scoffield and Guy Watt for providing information on their organisations.

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Managing forest aesthetics in production forests*

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Summary

Intensively managed forest plantations are important to the New Zealand economy. These same plantations are essential components affecting the scenic beauty of the New Zealand landscape, key contributors to the quality of outdoor recreation experiences and to a growing tourism industry. Effective projection and assessment of the visual aesthetic consequences of alternative forestry practices is essential to

efficient and balanced management policies and to facilitate compliance with the Resource Management Act (1991).

Forest growth models, GIS spatial analyses and analytic visualisation techniques were combined to guide the development of data-driven, photo-realistic visualisations of alternative paired management scenarios within a panoramic scene. A perceptual survey, using an intercept interview procedure that allowed respondents simultaneously to view and compare the full sequence of forest conditions projected to occur over a 20-year period, was conducted with 501 respondents.

Results of the paired-comparison/point allocation between the visualised management alternatives indicate that respondents were in substantial agreement on the visual aesthetic quality depicted for

each view. Vertical versus contour planting schemes (simulating the reduction of hard visual elements in the landscape) produced small and inconsistent differences in ratings, while ratings of scenes showing visual buffers were consistently rated higher than the same scenes with no buffers. This response was repeated for residents and non-residents and for respondents indicating a high level of involvement in the forest industry versus those indicating membership in environmental groups. Non-residents indicated the greatest importance for plantation forestry to the visual quality of the landscape and frequently cited this as positively affecting visitors' enjoyment, while local residents rated plantation forestry as contributing little to the visual quality of the landscape.

* This is a reproduction of a paper published in the Proceedings of the ANZIF Conference, April 21-24, 1997, Canberra.

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