Forest policy and management changes from a field forester's perspective

Alan Lush
Forester

Peer reviewed contribution

Keywords: Western Australia, forest policy, management, organizational structure

ABSTRACT: In the view of this forester, practicing in Western Australia's native forests for over 30 years, forest policies were effective, understood and reasonably resourced three decades ago but are muddled and inadequately resourced today. As a consequence forests are threatened by poor management.

With policy taken to be a *"course of action adopted, especially in State affairs"* and *"sagacity or sagacious procedure, especially in politics"*, and knowing sagacity to be *"having or showing insight and practical wisdom"* one has a wonderful definition of policy:

A course of action based on wise and practical insight, especially in affairs of State

Wisdom and practical insight come from personal experience and the transfer of knowledge from others. The background of forest policy makers has changed to the extent that their pool of first hand experience has significantly reduced as have the opportunities to receive direct feedback from field practitioners and neighbours. Wise and practical insight has become endangered.

Social changes and community expectations have caused centralization of decision making and forest management is again spread across several agencies. The management culture has shifted from one that was essentially rural to one that is more urban. Expectations are higher with less tolerance for error and relationships have become more adversarial with reduced goodwill.

The management ethos of the primary agency has shifted from manager to regulator. This has increased management complexity and brought about a greater dependence on formal procedures. Reduced income has increased reliance on Government funding that is now inadequate to meet management needs.

1 INTRODUCTION

This paper attempts to identify, from a practicing forester's perspective, how management of forests has changed over the thirty year period 1970-2000. The author (appendix 1) graduated with a Bachelor of Science (Forestry) degree and commenced employment in 1971 with the Forests Department. It managed State Forests and Timber Reserves in the south west of WA and had employment and formal qualification processes that were typical, as was the "apprenticeship" of regularly transferring staff between tasks and locations during early years – the employer had a good look at new staff and they gained a realistic view of forestry. Most importantly, senior staff

came to know the strengths and weaknesses of individuals, relationships between employees across all levels developed and degrees of trust based on first hand experiences were established.

As a forester living and working in rural areas one had to implement policy on a daily basis, interpret what it meant or imagine what it might be if one didn't exist. Policy had to be explained to fellow employees, neighbours and contractors and justified and defended. Although policy was written in Annual Reports and Working Plans it was not always readily translated into operational documents so field staff relied heavily on effective communication with more senior management.

The need to implement, interpret, explain and defend policy continues today in a different organizational climate with different community expectations. Have circumstances changed significantly and if so, what does it mean for forest management?

2 ORGANIZATIONAL ARRANGEMENTS

In 1970 three separate organizations had responsibility for managing forested lands according to their land tenure, purpose and vesting and although contiguous with one another in many places, were discrete for management purposes. The Forests Department was relatively well resourced, actively managing forests with emphasis on timber supply, forest regeneration and fire protection, and had a strong and highly qualified field presence. National Parks Authority was poorly resourced with emphasis on recreation and tourism and had a small field presence, and the Western Australian Wildlife Authority also suffered from lack of resources, placed emphasis on wildlife research and law enforcement and had a small field presence. Cooperation in the field between organizations was limited, and tended to be on a neighbourly basis with little or no formal agreement.

In 1985 these agencies were amalgamated into one, the Department of Conservation and Land Management (CALM), with direct responsibility for managing Crown Lands throughout the State. Further change occurred in 2000 with the formation of the Conservation Commission and the Forest Products Commission (FPC), and the separation of direct management of native forest harvest operations from CALM. Management of native forest operations in southwest forests changed significantly, with FPC responsible for harvest and associated activities and CALM overseeing.

2.1 *Forests Department (FD)*

Most forested areas in the State's south west were managed by the Forests Department. It was well staffed due to a statutory requirement to employ formally trained foresters and well funded since it retained ninety percent of royalties from harvest operations to be spent on forest management through the Reforestation Fund. It also received grants, loan funds and Government allocation from the Consolidated Revenue Fund and in 1970 annual expenditure exceeded $5.7m (FD Annual Report, 1969/70).

The Department's policy group consisted of six officers comprising a Conservator of Forests, Deputy Conservator of Forests and four Chiefs of Division. Principal Officers numbered fifteen with the addition of a Utilization Officer, superintendents and other heads of support staff (FD Annual Report, 1969/70). All six members of the policy group held formal qualifications in forestry and had significant experience in operational positions in rural areas, most exceeding ten years. The Conservator of Forests reported directly to the Minister.

All administrative centre (Divisional Office) managers and field based superintendents were tertiary qualified foresters.

2.2 *National Parks Board (NPB)*

National Parks in the State's south west were scattered, relatively small and poorly resourced when compared with the Forests Department. About twenty percent of budget came from Park revenue,

mostly Yanchep National Park, and the remainder from State Government. Annual expenditure was less than $400,000 (NPB Annual Report, 1969/70).

In 1970, Parks were vested in the National Parks Board that formulated policy. It was comprised of seven people with varying backgrounds and qualification but little or no first hand operational experience in Parks. At this level there did not appear to be any formal qualification in forest management disciplines that suited Park purposes. The National Parks Authority assumed the functions of the Board in 1976 and expertise for policy formulation, relevant to forest management increased substantially, as did resources. Ex-officio members included the Conservator of Forests, Director of Fisheries and Wildlife, Director of the Department of Tourism and the Surveyor General.

Parks were attended by National Park Rangers in residence, mostly field trained but without formal tertiary qualification. Field based staff and expertise increased after 1976 (NPA Annual Report, 1979/80).

2.3   *Western Australian Wild Life Authority (WLA)*

The Wild Life Authority had responsibility for 394 reserves throughout the State (WLA Annual Report, 1971/72), mostly in areas other than the south west. Its primary foci were fauna research, and law enforcement through Reserve wardens.

The Authority formulated policy for reserve and fauna management. It consisted of twelve people comprising five ex-officio members, including the Director of Fisheries and Fauna and the Conservator of Forests, and seven appointed members, including a botanist and two zoologists. Relevant expertise was available but policies without adequate resources were extremely handicapped. It was obvious that resources for field operations were severely limited, as the following quotation illustrates:

> The operations side of the management of reserves controlled by the WA Wild Life Authority continues to be the primary responsibility of a small group at the Wildlife Research Centre. Since this group consists at present of only four people the amount of work which can be carried out on the large number of reserves is minimal. Only one reserve, Two Peoples Bay Wildlife Sanctuary, has a resident on it (WLA Annual Report, 1974/75).

This sentiment is echoed in another annual report (1971/72) and indicates priority be given to research to identify sound fauna management requirements ahead of preparation of management plans. Implementation of such plans appeared to be wishful thinking.

2.4   *Conservation and Land Management*

Forested areas, including national parks, conservation parks, regional parks, nature reserves, State forests and timber reserves, are vested in the Conservation Commission and managed on its behalf by CALM. Today the total estate managed by CALM exceeds 24m ha (CALM Annual Report 2002/03), of which south west forests are 2.48m ha (Conservation Commission of Western Australia, 2004), and its operating budget exceeds $156m (CALM Annual Report 2002/03).

CALM has a Corporate Executive of eight with thirty other senior staff, and reports to the Conservation Commission of nine commissioners. Operational policy is formulated by the corporate executive, with involvement of the Commission as required. Of the eight corporate executive officers, three have tertiary qualification in forestry with at least five years operational experience, two have tertiary qualification in natural resource management with one of these having some (<5yrs) operational experience, and three have other qualification not directly related to land management (pers comm, Director Regional Services, CALM).

Forest harvest, with associated activities of road construction and regeneration, is managed by FPC and overseen by CALM. This gives CALM a regulatory role rather than direct management in these areas of activity.

Field administration in south west forest areas is managed from district and regional centres that are led by staff with tertiary qualifications that range from doctorate to certificate in various fields.

2.5 *Changes and Conclusions*

Since this paper addresses forest management in the south west of WA observations and conclusions will focus on the Forests Department (1970) and CALM (today).

2.5.1 *1970*

Management of south west forest areas was focused and well resourced. The Conservator of Forests reported directly to his Minister and through Chiefs of Division to the field. The line of command was direct. The organization had an impressive history (50 years) of securing a conservation estate, using and regenerating its forests in a sustainable way and of protecting its assets. It produced management plans that were clearly directed to forested areas in south west WA and had a wealth of knowledge and experience at all levels. It also had a direct working relationship with its timber industry clients and most neighbours who were especially helpful during times of emergency.

Recruitment of technically trained field staff was heavily weighted from rural areas and training was in-house in country centres to a Certificate level. Routine transfer of all staff in early years gave a broad base of experience and enabled individual strengths and weaknesses to be identified.

Decisions making processes relied mostly on in-house expertise and were heavily influenced by experienced field staff. The Department generated significant revenue from its activities and ninety percent of it was returned for forest management through the Reforestation Fund.

A summary of forest management in 1970 is contained in Figure 1.

2.5.2 *2000*

CALM manages a large estate across Western Australia. It responds to both the Minister and the Conservation Commission, and implements traditional forest activities through the Forest Products Commission. The line of command is indirect for forest activities of road construction, harvest and regeneration.

Forest management actively encourages public consultation and community involvement and management plans are reviewed by the Environmental Protection Authority (EPA). Staff numbers have been rationalization to fewer administrative centres as a result of declining effective budget and current moves by Government to establish "clusters" (CALM, Department of Agriculture, FESA and Police) to amalgamate support services will further reduce independence and flexibility.

Recruitment of field staff is heavily weighted from urban areas and in 2003/04, 400-500 applicants (tertiary graduates in land management disciplines, usually to diploma or degree level) were reduced to 20 to attend selection schools from which a short list of potential appointees was compiled (pers comm Director Regional Services, CALM). Positions are mostly filled by appointment rather than transfer.

Decision making processes include an external policy group, involve the EPA and is heavily influenced by media and special interest groups that are often critical.

A summary of forest management now is contained in Figure 2.

2.5.3 *Conclusions*

Organizational arrangements for forest management are more fragmented and diluted by competing demands and reducing resources. Without funding being formally linked to revenue and tied, as occurred with the Reforestation Fund, financial resources are likely to decline as public interest in forest management declines.

Recruitment to rural areas is disadvantaged, in a similar way to the medical and teaching professions, and is becoming progressively more urban. Management is subjected to higher and less tolerant community expectations and more prone to disruption. As a consequence procedures and protocols have become more rigid and are less innovative.

Compared with 1970, forest management today appears to be threatened by increasing organizational complexity and reduced staff flexibility. It is encumbered by reduced freedom to act on the ground. Forest management needs to be simplified into a single, integrated agency that is empowered to develop and implement management policies that support land use decisions of Government. It also needs to have secure and ongoing funding directly linked to at least those functions that are core to the health and well being of forest ecosystems.

1970 - Organisational Structure
Forests Department
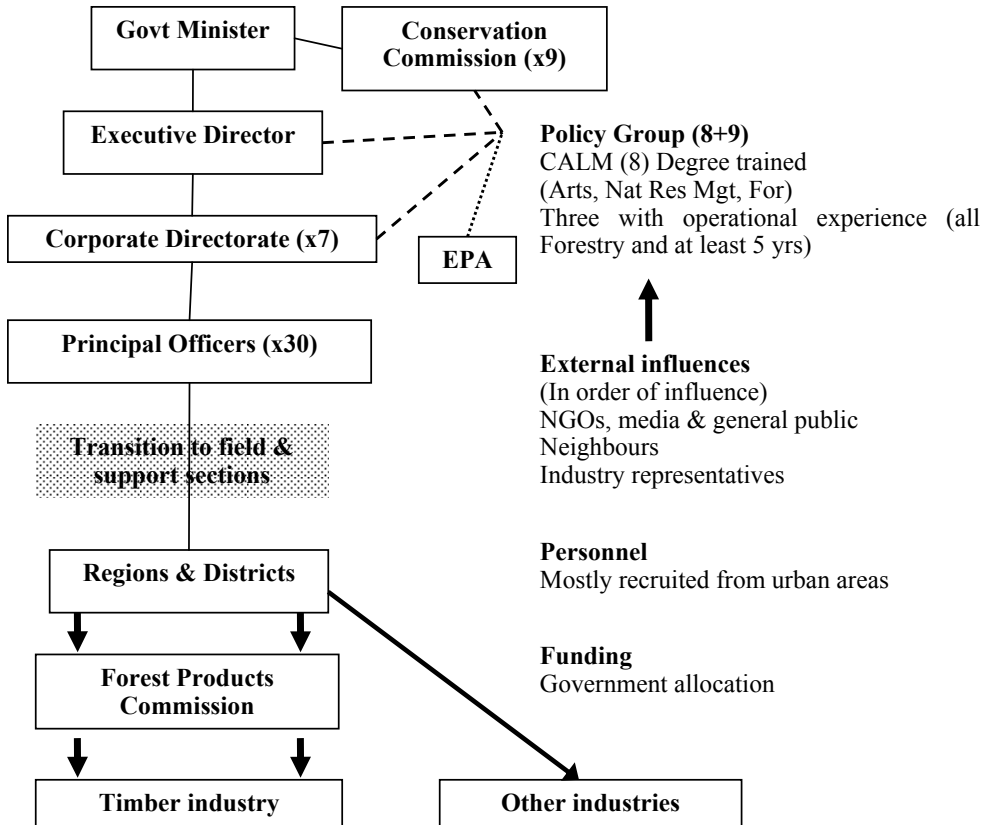**(Managing Most SW Forest Areas)**

```
┌─────────────────────────┐
│      Govt Minister      │
└─────────────────────────┘
            │
┌─────────────────────────┐          Policy Group (x6)
│  Conservator of Forests │ - - - -  All Degree qualified in forestry
└─────────────────────────┘          All with significant field experience
            │                         (>10yrs)
┌─────────────────────────┐
│      Deputy C of F      │          External influences
│   Four Heads of Division│ - - -    (In order of influence)
└─────────────────────────┘          Industry representatives
            │                         Neighbours
┌─────────────────────────┐          NGOs, general public & media
│   15 Principal Officers │
└─────────────────────────┘
            │                         Personnel
┌─────────────────────────┐          Mostly recruited from rural areas
│   Transition to field & │
│     support sections    │
└─────────────────────────┘          Funding
            │                         Significant self funding (tied)
┌─────────────────────────┐
│    Regions & Districts  │
└─────────────────────────┘
      │     │     │
┌─────────────────────────┐
│      All Industries     │
└─────────────────────────┘
```

SUMMARY

Direct line of command	Small policy group	Extensive field experience
Significant self sufficiency	Rural culture	Limited external influence

Figure 1. 1970 - Organisational structure of the Forests Department.

2000 - Organisational Structure
Department of Conservation & Land Management
(Managing Crown Land in Western Australia)

Govt Minister

Conservation Commission (x9)

Executive Director

Policy Group (8+9)
CALM (8) Degree trained
(Arts, Nat Res Mgt, For)
Three with operational experience (all Forestry and at least 5 yrs)

Corporate Directorate (x7)

EPA

Principal Officers (x30)

External influences
(In order of influence)
NGOs, media & general public
Neighbours
Industry representatives

Transition to field & support sections

Personnel
Mostly recruited from urban areas

Regions & Districts

Funding
Government allocation

Forest Products Commission

Timber industry

Other industries

SUMMARY

Fragmented line of command (to Timber Industry)
Limited field experience at policy level
Significant urban culture

Two large policy groups (and EPA)
Dependence on Government funding
Substantial external influence

Figure 2. 2000 - Organisational structure of the Department of Conservation & Land Management
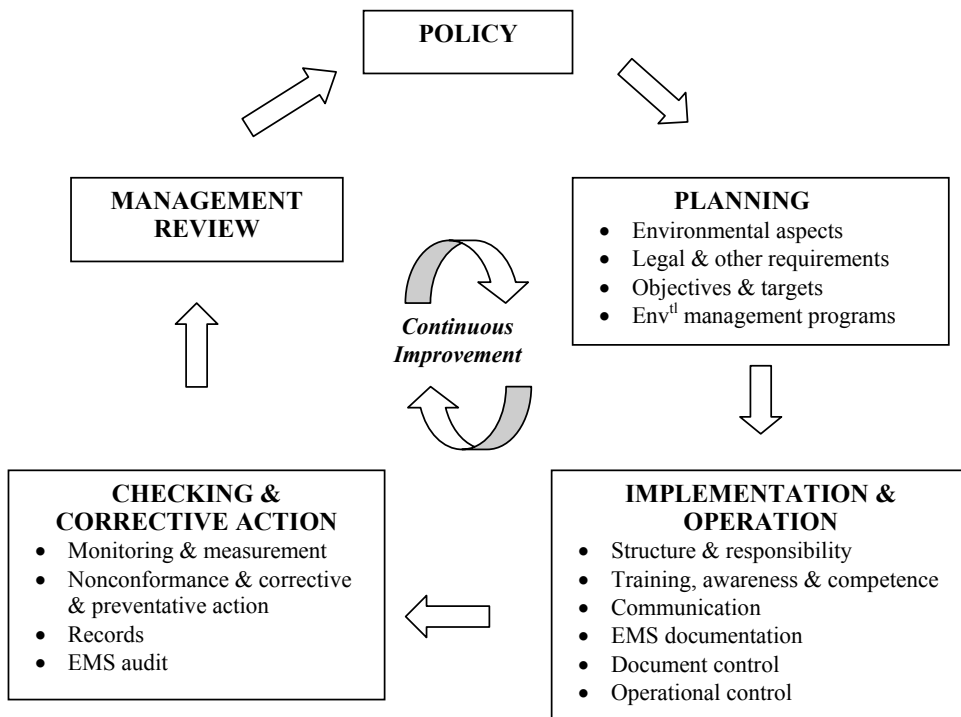
POLICY

MANAGEMENT REVIEW

PLANNING
- Environmental aspects
- Legal & other requirements
- Objectives & targets
- Env^{tl} management programs

Continuous Improvement

CHECKING & CORRECTIVE ACTION
- Monitoring & measurement
- Nonconformance & corrective & preventative action
- Records
- EMS audit

IMPLEMENTATION & OPERATION
- Structure & responsibility
- Training, awareness & competence
- Communication
- EMS documentation
- Document control
- Operational control

Figure 3. EMS CYCLE (Environmental Management System, International Standards Organization - ISO 14001)

3   POLICY FORMULATION AND IMPLEMENTATION

3.1   *What is policy?*

Policy is taken to be a "*course of action adopted, especially in State affairs*" and *"sagacity or sagacious procedure, especially in politics"*, and sagacity to be *"having or showing insight and practical wisdom" (Fowler and Fowler, 1969).* From this I have adopted the following definition of policy:

> *A course of action based on wise and practical insight, especially in affairs of State*

   Policy is the first element to be addressed in formal management standards, such as International Standard ISO 14001 for environmental management systems (Figure 3) and National Standard AS 4801 for occupational health and safety. These standards require that policies clearly declare a commitment, that they serve as a framework for organizational objectives and targets and that they can be audited. Above all they must be widely understood to be effective.
   It follows that good policies will be understood by field practitioners and be achievable through realistic objectives and adequate resources. Idealistic policies, couched in rhetoric and poorly funded will fail and worse, lead to poor interpretation and likely conflict with other policies.

3.2   *How is good policy formulated?*

Land management agencies have their purpose spelt out in one or more statutes. They achieve this purpose through policies that are the foundation for what they do. Policy tends to be the realm of the most senior staff with guidance either directly from a Minister of Government or through another body such as a Board, Authority or Commission. How do they achieve policies that are effective?

With Government espousing openness and accountability it is also beholden of management to consult widely and to interact with community. In practice, without adopting consultative and interactive processes, policies are likely to fail to meet Government demands.

Wisdom and practical insight become essential to adequately implement policy. The most effective policies are those that are unambiguous and practical and tend to evolve from a combination of formal and informal processes - formal processes that are top-down AND bottom-up, and informal processes that enable communication across levels. The development of trust and understanding is crucial.

Top-down bottom-up processes are iterative by nature and marry the ideals of policy with practicalities of implementation. Informal processes provide opportunities for work face operators to give policy makers direct feedback and to enable both parties to develop understanding and trust (or distrust).

In summary, good forest policy:
- Reflects what governments want (with community awareness);
- Incorporates wisdom gained from experience (including operational feedback);
- Is reasonably practicable.

3.3   *How is policy implemented?*

Policy is implemented through the setting of objectives and targets, the documentation of operational procedures and provision of adequate resources. In 1970 policy was implemented in a more semi-formal way than now. Operational procedures were generally developed in a "trial and error" way and freely amended to improve field practice. Innovation was encouraged.

Today's expectations are higher and various formally accredited performance standards, such as ISO 14001, spell out how to implement policy. They outline processes that are systematic and thorough, generally starting with policy followed by planning, implementation, checking and review (figure 3). They demand formal audit and today, operational procedures tend to be more prescriptive with rigorous protocols for change. As a consequence innovation is stifled.

3.4   *Policy formulation and implementation*

Decision making is a function of experience and available information and, to a lesser extent, interpersonal relationships that exist between decision makers. Personalities play an important role in the latter and a noticeable cultural difference prevails between urban and rural people. This becomes important when the collective background of policy makers and those that influence them is considered.

Subtle influences affect how matters are dealt with and in a general sense rural people live and cope with more day to day uncertainty that do their urban contemporaries. Seasonal vagaries that impact on rural enterprise, along with delays due to remoteness, are commonplace and make rural people more adaptive. "Helping out" is a core value and many community emergencies are dealt with through voluntary effort. As a result of these influences, rural people place emphasis on goodwill and are more forgiving when expectations are not fully met.

3.5   *Changes and conclusions*

3.5.1   *1970*
The pool of first hand experience and knowledge within the Forests Department's policy group was substantial. It focused on traditional forest activities and member's collective background gave the group a strong knowledge of operational forestry and its issues, a unique empathy with employees across all levels, and good understanding of individual strengths and weaknesses.

Opportunities for line managers to discuss issues with policy staff were frequent, both formally and informally. Regular presence of policy staff at functions such as safety presentations in rural areas enabled feedback from all levels. Such feedback always needed to be taken in the context that it was given (after a few beers?) but nevertheless alerted senior staff to matters requiring closer scrutiny. A "family" culture seemed to prevail that was founded on rural values.

Although policy was developed at the top it tended to evolve with input from below. Whilst it reflected what Government required it was stable (changed slowly) and pragmatic. Operational practices provided opportunity for innovation, wherever improvements were needed the trial and error process prevailed and written procedures were readily amended. A rural culture prevailed.

3.5.2   *2000*
The pool of first hand experience and knowledge within CALM's policy group is diverse and significantly reduced regarding forestry. In particular, the prevailing influence from CALM's policy group and the Conservation Commission is urban which, when considered along with an active and persistently critical media and public, leaves little scope and less tolerance for error.

Opportunities for line managers to discuss issues with policy staff are few and either formal or semi-formal. Feedback from other groups tends to be through workplace union organizations (pers comm Director, Regional Services, CALM). Communications utilize current technologies that are extremely efficient, to the extent that terms like "information overload" and "email avalanche" are often used. An expectation of immediacy is developing.

CALM has a substantial asset of land management knowledge and expertise with an extensive and technically capable base of support. It is applied across the State and although present, is not always readily available.

Operational procedures are increasingly specific with less latitude for innovation. Relationships built on mutual trust and goodwill with both contractor and neighbour have reduced and an urban culture prevails.

3.5.3   *Conclusions*
Policy makers have changed from a single group of six with extensive field experience (FD) to two groups totaling 17 with limited field experience (CALM and Conservation Commission). Policy formulation is increasingly "top down" with a greater urban influence and frequent public criticism. As a result, policies trend toward ideals rather than being pragmatic, and are applied in a more mechanical rather than adaptive way. Wisdom and practical insight have reduced since 1970.

Although a greater array of knowledge and expertise is available, its application is diluted and driven more by functional leaders than by operational managers. Compromise and balance suffer.

State wide responsibilities for senior management have reduced opportunities for interaction with work-face operators and increased use of electronic communications has reduced face to face interaction. Mutual understanding and trust, along with empathy for one another's circumstances, have reduced. Feedback from all levels through informal forums has also reduced.

Since the organizations prevailing culture has shifted from rural to urban there is a trend towards resolving issues in an adversarial way rather that through consensus based on goodwill.

Forest policies are at risk of becoming ineffective due to poorer focus at the outset, and less pragmatism and goodwill during implementation.

4 FINAL COMMENT

As a new recruit thirty years ago the question of policy and its implementation never arose, it was just carried out. The Forests Department was responsible for most of the State's south west forests, was operationally active and had strong working relationships with private enterprise. Together the Forests Department and timber industry worked in a way that was pragmatic and very effective. Goodwill prevailed across all levels and co-operation was taken to be a virtue. Forests provided for all users, were regenerated and protected. A sense of ownership existed and it was personal.

Thirty years later the Forest Products Commission harvests logs from some of these same forests on behalf of CALM for CALM customers through contractors. The business of harvest and regeneration is carried out by FPC, as an agent to the managing authority, and it provides assistance for forest protection. Everybody has a say, competing users are seen as adversaries, the sense of ownership has disappeared and it is no longer personal.

Notwithstanding the many changes over three decades, wonderful forests exist today and are cherished to the extent that most have or will become conservation reserves in one form or another. As living entities they will grow old and eventually die and it is my fervent hope that further management changes take place to enable them all to be productive, to continue to regenerate and to continue to thrive.

APPENDIX 1

Author: Alan R. Lush
Bachelor of Science (Forestry), Australian National University, Canberra, 1971.
Employment:
1971-2002 - Forests Department, Department of Conservation and Land Management and Forest Products Commission.
2002-present – Consultant, *Simply Systematic* (operational management systems).
Operational experience
The following table is general in nature and is not chronologically ordered. It is intended to demonstrate a career based in rural forest areas, and focused operationally at local, regional and departmental levels.

Time (yrs)	Description	Location

4 4 6	Operational management
	    Jarrahdale District
	    Manjimup District
	Functional management
	    Road construction, harvest supervision and regeneration
		Northern jarrah forests
		Southern karri & jarrah forests
		
		Southern karri & jarrah forests

6	Operational planning - harvest	Southern karri & jarrah forests
6	Senior administration (Regional level)	Southern karri & jarrah forests

1 2 3	Project management and implementation
	    Plantation inventory
	    Soil mapping and softwood plantation design
	    Environmental management system (ISO 14001)
		Softwood plantations
		Coastal plantations N^{th} of Perth
		 Departmental (Forests Products Commission)

32		

REFERENCES

Forests Department of Western Australia 1970. *Annual Report, 1969/70*. Perth, Western Australia: Forests Department of Western Australia.

National Parks Board of Western Australia 1970. *Annual Report, 1969/70*. Perth, Western Australia: National Parks Board of Western Australia. 1979/80.

National Parks Board of Western Australia 1980. *Annual Report, 1979/80*. Perth, Western Australia: National Parks Board of Western Australia.

Wild Life Authority (Department of Fisheries and Fauna) of Western Australia 1972. *Annual Report, 1971/72*. Perth, Western Australia: Wild Life Authority (Department of Fisheries and Fauna) of Western Australia.

Wild Life Authority (Department of Fisheries and Fauna) of Western Australia 1975. *Annual Report, 1974/75*. Perth, Western Australia: Wild Life Authority (Department of Fisheries and Fauna) of Western Australia.

Department of Conservation and Land Management, Western Australia 2003. *Annual Report, 2002/03*. Perth, Western Australia: Department of Conservation and Land Management.

Conservation Commission of Western Australia 2004. *Forest Management Plan 2004-2013*. Perth, Western Australia: Conservation Commission of Western Australia.

Fowler,F.G. and Fowler, H.W. (eds), 1969. The Pocket Oxford Dictionary. Oxford: Oxford University Press (5th edition, revised by McIntosh, E.).

Government of Western Australia 1984. Occupational Safety and Health Act (1984). Perth, Western Australia: State Law Publisher.