

Forestry in New Zealand: A time for change, challenge and conflict

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CHANGE

In preparing remarks for this conference I tried to think of some useful contribution I could make as you deal with unprecedented change and the uncertainty, confusion and challenge such change represents. During my time as chief of the US Forest Service it was also a time of significant change. For example, we reduced staff by 25% while at the same time we significantly increased total output of goods and services. I recognize that that change was quite small compared with what you have been through.

Let me share some thoughts with you about change. Change, of course, is a fact of life and a fact of nature. Sometimes a change in nature is as slow as the growth and death of an old tree or as abrupt as a Mt St Helen's earthquake or the great windstorms of the recent hurricane Bola in New Zealand a few months ago. Managers of organizations in either the public or the private sector recognize that an organization must change, both to meet new outside realities and to meet the aspirations of those who make up the organization.

At the same time organizations and individuals need some sense of continuing purpose, mission and specific task. The major job is to manage change at a rate that will encourage creativity and productivity but not so fast that it will cause chaos. Several years ago in Washington when a new administration came to power a favoured statement was to tell your secretary, when you left, that if the boss calls, get his name.

A fact of life is simply that in a period of change it makes a great deal of difference whether you are in charge of change or the receiver of change. Typically those in charge of change speak boldly about all the benefits of change while in fact being largely protected

from such risks. The receiver of change, if not a part of the decision process, may perceive himself as a pawn in some high stakes poker game. The most difficult thing to handle is uncertainty, simply not knowing what will happen next. People can face bad news and move on, but they may be virtually paralysed by a long period of uncertainty.

Let me quickly then note a few basic principles of change:

1. Recognize the different perceptions of the changer and the receivers of change.
2. Give as much freedom as possible to the receivers of change to help plan and carry it out, even though quite tight guidelines and time frames may have been provided.
3. There is a need to establish hot-lines, special briefings and continuing communication with employees and their families, to provide honest, up-to-date information.
4. Establish a forward focus to get everyone oriented towards the future. Define new missions, purposes, functions and tasks as soon as possible in order to rebuild normality.

FORESTRY IN NZ AND USA

What are my impressions of the similarities and differences between forestry in New Zealand and the United States? Let me briefly review them, starting with the similarities:

1. Both countries have great native indigenous forests that greeted immigrants. The forest was considered inexhaustible and something to be pushed back to make room for farms and homes.
2. These early farmers cut the forests down, burnt and farmed with no real thought of renewal. The idea that trees were a renewal resource was neither understood nor practised.
3. Perceived possible shortages of timber for such purposes as ships' masts led to early efforts to regulate cutting and set aside certain forests for specific purposes.
4. Concern for adequate wood for housing and for protection of farm lands from wind and water erosion led to

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early concerns about conservation.

5. Tree planting was used both as a conservation measure and to provide employment during periods of economic depression.
6. Low wood prices and the relatively long time required to get a return tended to discourage private investments in tree planting. Thus both countries used various tax incentives and grants to encourage private tree planting. Another reason for public support of tree planting was a recognition that values other than economic are provided by trees.
7. Forest land in both countries, except that set aside for special purposes such as national park or wilderness, was seen as providing a variety of goods and services including watershed protection, recreation, wildlife habitat, protection of endangered fauna and flora, grazing for domestic livestock and a sustained yield of wood products. Some of these products are priced in the market place and others are relatively free or, in economic terms, the free goods are 100% subsidized. This mixture of priced and unpriced goods and services under the theory of multiple use has led to struggles between those who think their particular use is being slighted. Politicians and in some cases the courts have been increasingly called on to intervene.
8. Increasing trade of wood in the international market frequently results, at least in the short run, in log prices that are above those that can be economically paid by the domestic manufacturers. This has led many countries, including United States and New Zealand, to introduce protective measures including controls on exports or imports to retain wood for domestic processing.
9. Both countries have run substantial budget deficits and have had problems with balance of payments. This has caused renewed interest and com-

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mitment to economic efficiency and competitiveness as well as looking at sale of assets to reduce the deficit. From my reading here, it appears that New Zealanders share with the US a common concept that people don't want to either raise taxes or reduce services.

10. Both US and NZ have a strong commitment to research. There is renewed concern in both countries that lack of investment in research and new technology is the root cause of trade deficits and productivity problems.

Now before you conclude that New Zealand and the United States are exact parallels let me quickly mention some significant differences:

1. At the time forest destruction, inflation and timber shortages became a concern in the United States there was a very large and highly productive indigenous forest in the west that was largely in public ownership.
2. Watershed protection and concern about future timber supplies were the two dominant forces behind reserving a substantial portion of the western forest as national forests in the US.
3. Concern for watershed protection and finding a suitable use for erosion-prone land that never should have been farmed was the driving force behind the purchase of lands for national forests in the east. A similar concern led to planting large areas of private land.
4. There are no highly productive exotic forests in the United States such as you have here. The highly productive forests in terms of wood production in the US are native forests. Both reforestation and afforestation programmes have been based on native species which of course may include hybrids and genetically improved versions.
5. Most of the best wood-producing forests in the US are in private ownership. For example, 75% of the commercial forest land area and at least 80-85% of the wood production capability is owned privately. 60% of the total commercial forest land base is owned by farmers and other private land owners who own less than 400 hectares each. This compares with about 7% in New Zealand. More than 90% in New Zealand wood production forests are owned by industry if we include the new state owned enterprise. In the US forest industries own only 14-15% of the commercial forest land.
6. New Zealand has a very large per capita wood-producing capability based on plantations. These forests can meet all of the future foreseeable



Two sets of knees. John Holloway (left) talking with Wink Sutton on the Conference field trip. (Photo L. Crozier)

domestic wood needs and provide for a substantial increase in export volume. Although the US exports substantial volumes of wood including round logs, it is, and will remain for the foreseeable future, a net importer of wood.

7. In the US, production and conservation aspects of land are intertwined. For example, the Pacific North-west forests which contained the largest current inventory of timber in the National forest are at the same time highly productive and important for other purposes. These include wildlife habitat, magnificent scenery, populations of endangered species, public recreation as well as being vital for watershed protection. They also probably contain substantial mineral values. I recently said I didn't know why the good Lord placed two world-class molybdenum deposits under highly sensitive National Forest areas. For example, the Misty Fiords National Monument wilderness in Alaska has a specific exclusion which allows for a large molybdenum mine. The other deposit is in Colorado. In addition, the largest potential cobalt deposit is under a wilderness in Idaho.
8. We have no counterpart of the highly productive radiata pine plantations which historically apparently have not been particularly prized for other uses in NZ. The nearest counterpart to that would be pine plantations in the south which are predominantly in private ownership.
9. Although NZ Forest Service and the US Forest Service had similar legal mandates, in actual practice they developed quite differently. For example, the US Forest Service never owned or operated a wood processing

facility and the large tree planting efforts on marginal farm land had been primarily left in private ownership rather than being bought and added to national forest. This has been done through tax incentives or cost-sharing. Thus the current conservation reserve programme provides that a share of the initial establishment costs plus an annual payment for 10 years is made to landowners who plant erosion-prone land.

10. There simply is no way to draw a line between production and fully protected forests, as has been recently done in New Zealand.
A couple of statistics will illustrate the difference. National forests in the US contain only 18% of the commercial forest land area but about one-half of the total US inventory of standing softwood timber. Much of that inventory is in old virgin forests that are also highly important for environmental purposes.
11. Although the US and NZ are both involved in major reductions in subsidies and more reliance on the private sector, New Zealand is phasing out tax incentives for growing trees while the US is embarked on a major tree planting programme as a part of the conservation reserve. This is not because the US likes subsidies but because it is trying to reduce the huge cost of dealing with surplus agricultural commodities, at the same time as reducing erosion and providing trees for the future. The trees will provide many benefits including improved wildlife habitat, watershed protection and recreation as well as a future source of timber.
12. Finally, the US has no forestry counterpart of state owned enterprises, such as the Forestry Corporation.

NEW ZEALAND'S RESTRUCTURING AND MULTIPLE USE

As we review the events of the last several years, we recognize that it has been a time of rising economic stress in much of the western world. Thus there has been significant questioning of past government policies of heavy involvement in business through regulations, subsidies, trade barriers and other forms of protection.

At the same time that we've seen economic concerns there has been a substantial environmental movement that asks troubling questions about how well we are caring for our world. There has been concern about the quality of the air, water, disposal of toxic waste, the use of herbicides, atmospheric deposition and much concern about what many see as destruction of forest, particularly the indigenous forests of many countries. Another concern has been the planting of exotic and sometimes single species forests.

These two forces, economic and environmental, which sometimes are considered opposing ones, seem to have combined in New Zealand.

It became apparent that the success of the exotic plantations have ensured future wood supplies for domestic use and even a surplus for export. Consequently it was feasible to place indigenous forest in a protected status and off limits to timber harvesting.

This split into production and protected areas was obviously aided and abetted by the Treasury which had repeatedly cited the New Zealand Forest Service as a great consumer of dollars. My interviews in Wellington clearly indicated that there were no great philosophical foundations for the idea. Instead, the decisions were clearly pragmatic and political. They were pragmatic in that the split of forestry seemed to make economic and environmental sense, at least at this point in time in New Zealand. The use of exotic forest to produce wood meant that other values would be substantially written off; further, most people judged that they didn't produce many other values anyway. Environmental groups clearly were willing to give up some values in the exotic forests to gain an additional level of protection for the indigenous forest. Placing the indigenous forest off limits to timber harvesting and possibly mining did not appear to have any great immediate economic impact. Mining, of course, was left in a status where it can be allowed, but under what conditions is not clear.

This split made political sense because

there was support from both economic and environmental interests. It promised to save expenditures, at least in the short run, because at the same time support for private tree planting would be eliminated and a cost recovery system instituted for research along with many other functions of government. If you compared the support versus opposition to the idea, it was a politician's dream. The only apparent opposition was from a portion of the timber industry and perhaps the NZ Institute of Forestry. Certainly not enough opposition to worry decision makers.

Now the fact that all forests cannot be classified into these two groups will probably come more to the fore in the future. There are obviously forests that have a combination of production and protection. For example, since hurricane Bola there has been interest in planting of trees to provide watershed protection, wind protection and, of course, to produce some products. It is not clear who would handle the planting and tending of such forests. We could compare the current classification of forests to dividing people into two groups, tall and short. It is fairly easy to determine this for very tall people and for the shortest people, but there is a large population in between. Now this normal distribution of forest types may not apparently occur in New Zealand at this time, probably because the exotic forests are usually clearly production forests with the indigenous forests quite low in economic productivity terms. But I believe that in the future you will find that there is quite a sizeable population of forests between these extremes.

Was this decision wise and is it likely to prevail over time? Only history will really provide the answer. But I would predict that there will be substantial stress and some additional change over time. When the pendulum swings, as it has here, it tends to swing back; when solutions are put in place to solve one set of problems, frequently another set occurs.

I have substantial reservations about the long-term viability of dividing land into the simple categories of production and protected. There are obviously some lands that have such high protection and amenity values that their production output is poor in terms of direct tangible goods and services. Those lands are typically national parks and wilderness areas. There are also some highly productive lands such as those covered in the exotic plantations around Rotorua, where the original amenity values have been foregone, or at least reduced, in order to capture their production capability. The great farming lands of the heartland of the United

States would be another typical example.

I see two struggles ahead in the short run. The Department of Conservation now has about one-third of the land area of New Zealand under a protected status. I think there will be substantial arguments as to uses that are to be allowed on these lands including the level and type of recreational development, whether grazing should be allowed or mining be permitted. For example, the Minister of Energy, Mr Butcher, is on record as stating with respect to mining on Department of Conservation lands: "The Minister of Conservation is a member of a Government committed to economic growth and employment opportunities," and, he said, "I am sure she will appreciate the employment potential of mining operations where these are obtainable within an acceptable cost to conservation values." Mr Butcher is apparently saying the Government must weigh economic, social and environmental consequences of mining and make a decision considering all three. Others have pointed out that the legislation clearly makes the Minister of Conservation an advocate for protection and preservation of those lands. Just how this will play out I don't know. But I do see that at least the Minister of Energy thinks she is going to use multi-purpose theory in making these decisions whereas others consider their use should be purely preservation.

For lands now administered by the state owned Forestry Corporation, I expect there will continue to be public interest in access provisions. I also suspect that the sale of those Forestry Corporation lands will be complicated by Maori land claims. Another complicating factor will probably be the question of whether overseas companies can buy this land if it is made available for sale.

Some of you have asked me if the multi-use theory of land management is wrong, as might be suggested by the New Zealand experience. Absolutely not, although it may not include the full range of multiple use values. What I see here is that Government has decided on a mix of uses that will be provided for certain national lands at this point in time. For lands controlled by the Department of Conservation it will not include timber harvest, at least in the short run. The Maoris, of course, have restricted access to harvesting. Whether these lands will be open to mining or any other types of exploitation is still being decided.

Parliament has also decided that in plantations values other than timber are minor and that efficiency can be achieved through a state owned enterprise. The fact that several hundred

thousand acres of plantations have been successfully managed by private industry lends support to that idea.

Now multiple use is the **optimum** combination of uses to meet the objectives of the owner or the public. It is not everything, everywhere, all the time. Thus the multiple use concept of land management (minus timber harvesting) has been shifted to the Department of Conservation.

OTHER QUESTIONS

Can one-third of New Zealand really be placed in protected status and still meet the future economic need? It may be that New Zealand with its rather small population and large land area can do this and still remain economically viable. However, virtually everyone I've met in New Zealand has stated that New Zealand's future economy will be land resources based. When asked what contribution would this one-third of the land area make to that economic future, most cite its contribution to recreation and tourism, particularly overseas visitors. There is, of course, no question that the great national parks and highly scenic areas will be a great tourist attraction. However a large part of the indigenous forest which is now fully protected is not particularly attractive or of interest to tourists. Most do not venture off well-used trails during visits to New Zealand. I expect in fact that this one-third of the land base is really being held there for future decisions. The Ministry of the Environment, who are charged with looking at future planning of such areas, will apparently be taking a major part in that dialogue. It is not at all clear, of course, how a Ministry with 100 people can determine the future management of lands under the control of other Ministries.

Has this major re-organization of the forestry sector saved money? I believe the only honest answer is I don't believe anyone knows for sure. There has unquestionably been a reduction in expenditures in the forestry sector and some additional income due to cost recovery. Some of the offsetting costs include a very large amount of severance pay and redundancy for those displaced, substantial establishment costs for the new organization and obviously a substantial amount of lost time of people involved in organization who simply did not know what to do next or whether they had a job. The more important question is how these new organizations will function over time, and whether they will be able to save money or perform more effectively. I asked the Treasury people in Wellington whether the new Department of Conservation was operating on less money or more money

since the re-organization. I asked the Department of Conservation representatives the same question. As you probably know, the Director General of the Department of Conservation is on record as saying that his budget after re-organization is about 25% less. The Treasury representatives assured me that the department in fact had a larger budget than the previous agencies that it absorbed. I would say that's a fairly typical kind of reaction that I've seen in the past after re-organization efforts.

I will not address but would like to raise some additional questions:

- The new state owned enterprise, Forestry Corporation, is expected to operate as a commercial enterprise in the same vein as a private organization, but yet it is subject to ministerial direction and control. Is that the worst of all worlds? What are the merits of fully privatizing those highly productive exotic forests?
- Will the Forestry Corporation or private companies operate on some type of sustained yield basis? What prevents liquidation of assets including the forest?
- Is it really feasible to depend on one million hectares of exotic forest for future New Zealand wood uses?
- At some point the world will be completely dependent on sustainable, renewal resources. What are the implications for this for future land use in NZ?

LESSONS FOR FORESTERS

Do recent events in New Zealand represent a repudiation of the tenets of the forestry profession as understood here

and around the world? My answer is no, but it does call for an examination of some traditions and practices. In my view a forester manages forest resources on ecologically based concepts for the benefit of the society. In forestry he is not just a grower and harvester of trees. The mix of uses on land managed by a forester can range from 90% wood production to no wood production. In the United States and around the world foresters are successfully managing everything from forests primarily for wood production to national parks and wilderness areas in a fully protected status.

If the concept of a forester in his or her own mind becomes only growing and harvesting trees or alternatively multiple use means everything, everywhere, all the time, then the profession would have failed to learn from recent events here.

There is no question that foresters need to become more active in providing information to nourish resource policy makers. In the past, foresters have been content to remain in the forest while others much less well informed, and much less knowledgeable of management, made the major decisions for them. A forester obviously needs to be part of the solution and not the problem.

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Let me express my sincere appreciation to the NZIF and to each of you for your hospitality and for your friendship. It's been a very enjoyable week and we've learned a great deal while we've been here.



Bill Studholme (left) with Wink Sutton (Institute President), centre, and Geoff Cameron on the Conference field trip. (Photo L. Crozier)