



SHORT COMMUNICATION

Service to science: history of the New Zealand Association of Scientists

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ABSTRACT

In 1941, the New Zealand Association of Scientific Workers was formed to secure the application of science for the welfare of society and to promote the interests of scientists. It changed its name to New Zealand Association of Scientists (NZAS) in 1954 to reflect its non-political nature. Its publication, *New Zealand Science Review*, has become a prominent forum for exchange of views on science and science policy. NZAS initiated important data-gathering projects, firstly directories, then surveys of scientists, used in making representations to government about salaries and working conditions, secrecy and policy changes. In recent years, NZAS has organised annual conferences on science policy and other issues. While affiliated to the Royal Society of New Zealand, and cooperating with it over several projects, it operates independently.

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Introduction

This history project developed from an informal proposal which was approved by the council of New Zealand Association of Scientists (NZAS) in 2012. As I have had a long involvement with NZAS and over 50 years' experience as a professional science editor and writer, 20 of them with the Department of Scientific and Industrial Research (DSIR), I was considered well placed to research and write the association's history. I was given full access to the association's archives, although most of the annual reports and summaries of submissions had been published in *New Zealand Science Review*. The first three papers have been published (Gregory 2013a, 2013b, 2014). This short communication concentrates on the modus operandi of the association as distinct from its accomplishments.

The first 50 years

The New Zealand Association of Scientific Workers was formed in 1941 (Figure 1), its objects being to secure the wider application of science for the benefit of society and to improve the working conditions of scientists. It was open to all scientists irrespective of

SCIENTIFIC WORKERS ASSOCIATION APPROVED

The recently formed New Zealand Association of Scientific Workers was placed on a permanent footing at a meeting held in the City Library Hall this week. Dr. W. R. B. Oliver presided over a large attendance and outlined the aims and objects of the new association, which had been formed "to secure the wider application of science and the scientific method for the welfare of society and to promote the interests of scientific workers." Scientists, by getting together and pooling their resources, could help the war effort and also post-war reconstruction, he said, which was an answer to the objection that the present was not an opportune time for forming the association.

Dr. C. O. Hutton and Dr. W. B. Sutch were among other speakers who pointed out that the association would consist of scientists working on behalf of science and therefore would not overlap the functions of the Royal Society. The proposed association would make the work of scientists more effective and bring about greater co-operation.

Figure 1. Announcement of formation of New Zealand Association of Scientific Workers. *Evening Post* 18 December 1941, vol. CXXXII, issue 147, p. 14.

professional standing, and initially also had technician and other non-scientist associate members (Gregory 2013a).

Like many other countries' national associations, it affiliated with the World Federation of Scientific Workers, which was established in 1946. However, this soon became perceived as a politically motivated organisation, so the New Zealand association disaffiliated in 1953. It survived the anti-communist paranoia of the early 1950s by repeatedly affirming that it was apolitical and not a trade union, but it also changed its name (by postal vote of members) to New Zealand Association of Scientists in 1954 (Gregory 2013a) and helped its technician members to set up their own separate organisation (Gregory 2013b).

During the next decade (1960s), NZAS fought long and hard to obtain parity in salaries and conditions with university and government colleagues overseas (Gregory 2013b). By the early 1970s it had achieved much greater recognition both of scientists and their role in

economic development. Another major achievement had been to provide helpful input to a Royal Commission on the State Services towards the formation of a unified policy body for science, the National Research Advisory Council (NZAS 1965).

From the mid 1970s, there was growing concern around the western world about some scientific developments, notably genetic engineering, nuclear power, destruction of ecosystems and environmental pollution. In New Zealand, scientists from different disciplines held differing views about these issues, so government departments imposed restrictions on public dissent (Gandar 1976).

As well as making submissions to government on several of these issues, such as lead in petrol, the association took up the issue of freedom of scientific information. It organised countywide meetings about secrecy and whistleblowing, and provided considerable input to the Danks Committee reviewing the Official Secrets Act and to the resulting Official Information Act 1982 (Gregory 2014). This issue resurfaced when Crown research institutes (CRIs) were formed in the early 1990s. It continues to be a concern, and in 2015, to air the issue, NZAS organised the conference ‘Going Public: Scientists Speaking Out on Difficult Issues’ (Gaston 2015).

During the 1980s, NZAS increasingly felt bound to make policy submissions. A pointer to the changes in government science that were to come was the requirement that ‘performance indicators’ be established in the DSIR in an attempt to justify research programmes by measurable outputs (DSIR 1983). Extensive submissions by NZAS to the 1986 Beattie Committee (Ministerial Working Party on Science and Technology) and the 1987 Science and Technology Advisory Committee were ineffective because the reports of both committees were overturned by the government in the reorganisations of the late 1980s (Tizard 1989). NZAS has been embroiled in the controversies that ensued ever since.

In 1989 the NZAS council conducted a full, facilitated review of its future (unpublished minutes 15 April 1989). This resulted in a primary focus on science policy issues, which would entail organising annual conferences and addressing *New Zealand Science Review* to a wider, influential audience. NZAS would also resume canvassing political parties pre-election for their science policy statements and would issue its own policy statement concurrently.

New Zealand Science Review

New Zealand Science Review, NZAS’s flagship publication, has always absorbed a major part of the association’s income, and at times has barely survived financially. In the early 1980s it adopted an ‘economy’, typed format.

Subsequently, council took a chance—on moving to a smart-looking, properly typeset format—and the cost almost finished it. It survived by reducing the number of issues per year to two or three, and delaying publication. The advent of desktop publishing in 1989 saved the situation by enabling a considerable reduction in costs. However, the journal still had to be restricted to two issues per year until income increased, and was supplemented by a more frequent newsletter, *Scinet*, between 1988 and 1994. The high-quality format of *New Zealand Science Review* continued, and it was able to evolve to quarterly production at the turn of the 21st century.

From the outset, controversial editorials were written, often anonymously at first. Stimulating editorials were considered to attract readership, but they alienated some

scientists. Moreover, in the early 1990s, scientists in the newly formed Crown research institutes were reluctant to submit papers to a journal associated with outspoken commentary. So NZAS discontinued this editorial policy because, in line with its internal review of 1989, it wished to provide an impartial platform for debate.

New Zealand Science Review has evolved into a prominent forum for the exchange of views on a broad range of scientific disciplines and science policy. In addition, special issues have been produced from time to time, such as: International Year of Light, and tribute issues for Karl Popper and others.

Data-gathering projects

Scientists' surveys and the *Directories of New Zealand science* have been major activities of the association.

Five editions of *Directories* appeared between 1945 and 1975, but, after the sixth edition had to be aborted, further ones were not undertaken (Gregory 2014). However, a full database of scientists and technologists in New Zealand was compiled, finally, by the association in 2009 (Sommer 2009).

The reorganisation of science in the late 1980s prompted NZAS to survey its members in 1991 on how contestable funding was working. It showed that, although there was support for accountability and transparency, and for an element of competitive funding, the system was perceived to be unsuitable and not working effectively (Penny 1991). A wider-based survey in 1994 showed that 'a sizeable number' of scientists were unhappy with their situation as a result of the disruption caused by the reorganisation and problems with the changed management structures. Scientists were concerned about the effect of the changes on the provision of science, and on international regard (Berridge et al. 1995).

Further surveys showed that scientists were concerned even more about interruption of their work and bureaucratic accountability in 2007/2008 than in 1996 (Sommer 2009).

The findings of these surveys have formed the bases of approaches to government on ways to improve the way the system operates in New Zealand. While initially forthright in its criticisms of the untested changes being foisted on New Zealand science, NZAS came to recognise the value of some initiatives by the government, such as establishing the Marsden Fund for basic research and creating the position of Chief Science Advisor to the Prime Minister. It moved towards bringing parties together to work on resolving some of the problems that emerged. A notable move was production of the 2005 discussion document 'There is a better way' (NZAS 2005). This questioned the effectiveness of the principle of separating policy/purchaser/provider components and included recommendations to review the conflicting incentives fostered by the funding arrangements and increase resources to excellence-based research.

Conferences

An initiative by then president Wren Green for the association to organise a section of the 49th ANZAAS Conference in Auckland in 1979—on 'Social responsibility in science'—attracted a wide audience, and new members, and produced a book, 'Focus on social responsibility in science' (Green 1979a).

NZAS began a regular series of conferences in 1990, on topics such as ‘Changing expectations for science’ (1993), and ‘Biomedical research in RS&T: 2010’ (1995) and, more recently, ‘Re-setting science and innovation for the next 20 years’ (2010) and ‘Science and society’ (2014).

Membership and representativeness

Membership of NZAS has seldom been higher than in 1951, at the time the association published its second edition of *Directory of New Zealand Science*; at 450, it was equivalent to 31% of the scientific population recorded there. It reached 473 in 1980 after the ANZAAS conference (Green 1979b), but the science community had become much larger by then. At the time of the government’s science reorganisation in the late 1980s, membership had dropped to just below 300 and was cause for serious concern. Numbers revived during the 1990s, but have always remained low.

However, NZAS considered that its representativeness arose from the broad spread of expertise among its members rather than numbers, which were anyway not known until it began its *Directories*. The association usually liaised with other scientific organisations and gauged the thoughts of the wider scientific community through its surveys.

Relations with the Royal Society of New Zealand

The inaugural meeting of NZAS had declared that ‘the association would consist of scientists working on behalf of science and therefore would not overlap the functions of the Royal Society’ (Figure 1). At that time, the Royal Society of New Zealand (RSNZ) was constituted as a ‘Body for the Promotion of Science’; its patron was the governor-general, and it was run by a board of appointed distinguished Fellows (RSNZ Act 1933). Although several members of NZAS have also been Fellows of RSNZ, and its first four patrons (Dr W. R. B. Oliver, Sir Ernest Marsden, Sir Robert Falla and Sir Charles Fleming) also served terms as president of RSNZ, the organisations were perceived to pursue separate objectives, with NZAS being independent of government and its focus being more on the working conditions of scientists and technicians.

In 1963, when NZAS convened a meeting of representatives of scientific organisations to discuss the National Research Advisory Council Bill, the then president of the Royal Society, Dr Charles Fleming, declined the invitation. He considered that it alone was adequately constituted to act as the mouthpiece of New Zealand science (McEwen 2005). Dr Fleming was, however, concerned about the Royal Society’s role and representativeness, and was instrumental in obtaining new legislation for it in 1965. This enabled scientific societies to officially affiliate with the Royal Society, which several societies did (RSNZ Act 1965). However, NZAS retained its independent voice. Dr Fleming appreciated this and, in 1979, when approached to become patron of NZAS; he accepted the position, using it to ‘champion causes close to his heart’, such as prevention of ‘selective logging’ of native forest (McEwen 2005).

At the start of the changes to New Zealand’s science organisations in the late 1980s, the Royal Society and NZAS explored more formal links. The legal constitution of the Royal Society precluded NZAS from becoming a ‘member body’ at that time. However, the Royal Society thought that NZAS and *New Zealand Science Review* were extremely important,

and was also keen to see the *Directories of Science* revived. It was considered by both parties that NZAS should retain its independent voice, and continue to ‘speak without consensus, a role not possible for the Royal Society’ (unpublished minute 19 September 1993). With that proviso, NZAS applied for affiliation and was accepted.

Despite some commonality of objectives, NZAS continues to operate independently, and the two organisations have collaborated in many ways, for example over national surveys of scientists, awards, schools’ science fairs, and establishment of the association’s website.

Current situation

NZAS is celebrating its 75th anniversary in 2016. Despite periodic vicissitudes, it has made significant contributions to the political climate in which science is practised in New Zealand. It has campaigned vigorously for recognition of New Zealand scientists and their research, and kept major scientific issues before the public. It continues to take initiatives on science policy and scientific issues and to negotiate with government on behalf of scientists.

Disclosure statement

No potential conflict of interest was reported by the author.

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