GENETIC ENGINEERING

THE NEW ZEALAND EXPERIENCE

THE ANATOMY OF A ROYAL COMMISSION

In April 2000 I was invited to chair the Royal Commission to be held in New Zealand to enquire into Genetic Modification. If before that date I had been asked to define GM, I would have had trouble giving an accurate answer. In case any of you may be in a similar position, I start with a definition of GM in popular terms:

GM is altering the genetic material of cells or organisms in order to make them capable of making new substances or performing new functions.

The first genetically modified organism was produced in a laboratory nearly 30 years ago. GM techniques have been commonplace for at least 20 years. In New Zealand GM has been used freely for more than a decade as a research tool, for medical purposes, and in food ingredients. By way of examples of the kind of research taking place, there is investigation of the insertion of a toxin gene that would control wasps, a pest in New Zealand, by killing them in their nests.

Work is proceeding on possible biocontrol of other pests such as possums and stoats. Other research is related to the primary industries on which the New Zealand economy is dependent, for example it is hoped to deactivate a gene in sheep producing a protein which inhibits muscle development. Other fields of research include animal vaccines and plant studies.

The first GM food product was a tomato with a lengthened shelf life. Fruit is being modified to enhance virus resistance. A number of plants may be modified to increase their resistance to herbicides, enabling better weed control. The best known medical use is insulin for the control of diabetes, but GM techniques are also used extensively for diagnostic purposes. There is much promise, or at the least hope, that GM will provide cure or amelioration of many serious medical conditions, particularly genetic conditions such as cystic fibrosis. Evidence was given that the American Food and Drug Administration had approved 76 genetically engineered medicines, while over 300 new medicines targeting more than 200 diseases were in the pipeline.

What is a Royal Commission?

In New Zealand, a spectrum of techniques is available to a Government wanting advice from other than conventional official sources. In ascending order there are Ministerial Inquiries, usually carried out with a minimum of formality, and not necessarily in public; Commissions of Inquiry, and Royal Commissions. The last two have a statutory foundation, the Commissions of Inquiry Act. The Royal Commission is the heaviest weapon, conventionally chaired by a sitting or retired Judge, and having extensive coercive powers.

The recent history of New Zealand Commissions of Inquiry is a chequered one. The Inquiry into the air crash on Mount Erebus was challenged by legal action which reached the Privy Council. The Inquiry was held to have breached natural justice, and the Commissioner, Peter Mahon, a respected and experienced sitting Judge, felt obliged to resign. The Inquiry into the notorious Arthur Allan Thomas murder case narrowly survived a similar fate, the chair being severely criticised when judicial review proceedings reached the Court of Appeal. The most serious allegation was that the chair was biased. He had a direct way of making his views on credibility known.

For example when a police officer gave evidence about a report he had prepared, which had not impressed the Judge, he asked the witness "What did you file the report under, fairy tales?".
The most recent major Inquiry was the Winebox case, so called because it was set off by the production of a cardboard box containing relevant documentation, dramatically tabled in a Parliamentary debate. The Commissioner's findings about tax evasion, or the absence of it, were subsequently set aside as erroneous in point of law. In this instance the Commissioner was none other than my distinguished predecessor as Chief Justice, Sir Ronald Davison. A recent issue of the Australian Law Journal claimed there were two known factors about Royal Commissions, they never work out as foreseen, and they often cause serious trouble to those who set them up. This background should have been a lesson to me to have nothing to do with such exercises, but as you all know these jobs always sound more attractive when some persuasive Minister or official is selling them to you, than when you actually have to tackle the work.

Why a Royal Commission?

In Hong Kong, I understand, there is no restriction on the use of GM.

There are proposals regarding labelling of food for GM content, and your consultation paper which I have read, summarises the debate on that aspect of the subject succinctly. Why, you may ask, the trouble, delay and expense of a Royal Commission?

In New Zealand, for some time now opposition to GM has been loud and high profile. New Zealand as some may remember took a strong stance against nuclear energy and nuclear weapons, and many see an analogy, believing that New Zealand can be kept GM free, as it has been kept nuclear free, giving that a slightly generous interpretation. To date the use of GM has been strictly controlled, requiring an approval process, both in relation to research and use in New Zealand, and the importation of GM products.

New Zealand has a strong and growing Green political movement. At the last election, held in 1999, the Greens for the first time captured a number of seats, and in a recent opinion poll had 7 % of the vote. If an election were held today the Greens would hold the balance of power. They are not part of the governing coalition, but Government depends on their support in votes on matters of confidence.

They campaigned strongly for a Royal Commission into GM, and Government agreed to establish one.

Getting started

I had been involved in previous Commissions as counsel, but never as a member or Chair, so I had no direct preparation for the role I was to play. A New Zealand Government Department has recently published a booklet which will be a great help to future Inquiries, but so far as I was concerned, there was little to guide me but instinct.

The start was fascinating, and breathtaking in the initial absence of … well, almost everything except access to our budget.

In effect we were provided with funds (our budget was fixed at $6.2 million NZD, or something in excess of $HK20m), the Government's best wishes, and an empty space, which happened to be available because an earlier unrelated Inquiry was about to finish.

We had to engage staff, set up our premises, and organise our systems. After that, we had to think out and establish our processes.

All this meant it was many weeks before we began to come to grips with the actual mysteries of genetic modification. This loss of time came back to bite us later, when we were not quite able to complete our work within the tight time schedule Government had set for us.

Sorting our processes

The Warrant setting up the Commission posed two main questions:

1. the strategic options available to New Zealand to address the issues posed by genetic modification

2. any changes considered desirable in current legislative, regulatory, policy and institutional arrangement for addressing GM.

The Warrant referred to many headings for our investigation, including:

- the purposes for which GM was already being used in New Zealand

- the level of uncertainty about the current and possible future use of GM
- the risks and benefits from the use or avoidance of GM
- New Zealand's relevant international obligations
- Liability concerns
- Intellectual property issues
- The Crown's responsibilities under the Treaty of Waitangi, New Zealand's treaty with its indigenous Maori people
- The main areas of public interest in relation to the use of GM, including human health, environmental matters, the economy, and cultural and ethical concerns.

An important early step was to request recognised experts to prepare papers covering the main topics we would have to consider. The experts then came along to talk to their papers, and we had the opportunity of questioning them. Especially for those Commissioners who had no background in particular issues, this exercise was a valuable starter.

We also held three days of scoping meetings, to which anyone was welcome. Several hundred members of the public attended, and many others participated by means of the interactive website the Commission established.

In the main these meetings attracted members of the public with an existing interest in the GM debate. These were structured meetings where participants were arranged in groups dedicated to subjects of their own selection.

The procedure is known as a card sort process. The participants discussed these issues, and wrote down, on cards, the sub-topics they regarded as significant, which in turn were sorted under more comprehensive headings. Movement between groups was encouraged, and at the end of the day, each table reported to the Commission in open session.

These initial meetings gave us a good feel for the issues likely to arise. They were also valuable in starting a process where those interested in the debate were able to hold rational discussions with one another, rather than shout slogans or hurl abuse from a distance. Not the least achievement of the Commission processes was to help people obtain a better understanding not only of the subject itself, but also of the other person's point of view about it.

In any current New Zealand controversy it is important to ensure that our indigenous people, the Maori, are consulted appropriately.

They form about 15 % of the population. We held an initial scoping meeting with Maori, a hui as such consultations are called in their language, to obtain views as to the processes that would best suit the subject.

Consultation with Maori is a delicate exercise. The Warrant expressly required us to consult and engage with Maori in a manner that provided for their needs. However, Maori continue to be organized around tribal affiliations. There are some Pan-Maori organisations, but none that are authorized to speak for Maori as a whole. Consultation therefore requires knowledge of the appropriate bodies with whom to consult, and careful adherence to protocols.

The Commission spent considerable effort trying to get its Maori consultative process right.

The consultation process

The Warrant directed us to consult with the public in a way that would allow people to express themselves clearly,

including their views on ethical, cultural, environmental and scientific perspectives, and to adopt procedures that would encourage people to express their opinions on these matters.
As already noted, the Warrant also emphasised that we were expected to consult in an appropriate way with the Maori people.
Thus the Warrant revealed that in setting up the Commission, Government had two purposes in mind, separate and distinct. The Commission was to consult with New Zealanders in a way that would enable them to have their say in the GM debate. However, although the Commission was to report on, among other things, the main areas of public interest in genetic modification, the process was not akin to a referendum. The Commission was to make an independent investigation, and report to Government with its own opinion and recommendations on the strategic options open to New Zealand in dealing with GM now and for the future. This distinction was perhaps not always clear to participants, and after the issue of our Report, the criticism by opponents of GM was often in terms that the Commission had not listened to the voices of the people. To the contrary, we listened most attentively, but as stated, our brief was to form our own opinion of what was best for New Zealand in regard to GM, not to count votes for and against.

To return to our processes, in addition to the express requirements of the Warrant, we were also bound by the provisions of the Commissions of Inquiry Act.

Among other things, this provided that persons who satisfied a Commission that they had an interest in the subject matter, apart from that held in common with the public, were entitled to appear and be heard at the Inquiry.

There is no difficulty in applying this provision to more conventional inquiries, such as the instances I gave earlier. In an investigation into an air crash such as the Erebus case, for example, one can readily envisage that the airline, the estates of the pilots, and representatives of deceased passengers would be admitted as "interested persons" under this provision. In a conventional enquiry one might envisage 3 or 4 parties; in exceptional cases there could perhaps be as many as 10, but I do not believe any previous New Zealand Commission had to face the situation where nearly 300 persons and organizations applied on the basis that their particular interest exceeded that held by the public in general. As the Commission was obliged to point out in one of its written decisions on these applications:

"... it was obvious many members of the public were acutely interested in the enquiry and often highly informed... Many people [were] concerned to varying degrees of intensity but, by itself, this [did] not amount to 'an interest apart from that of the general public' "

Many of the applicants clearly qualified, and their applications were granted without a formal hearing. The Commission afforded all the remainder the opportunity of being heard in support of their applications, and allocated several days to dealing with them. In the result, 117 were admitted to "interested person" standing. Almost all these presented a case to the Commission at its public hearings.

The separate consultation streams

Outwardly, no doubt the formal hearings of the presentations by the Interested Persons appeared to be the centre piece of the Commission's consultations.

This was where many of the major participants presented their cases; where the numerous expert witnesses, local and overseas, made their appearances, in person or by audio or video links; where the cross examination took place, and where the most media attention was attracted.

It needs to be emphasised however that this was only one of a number of consultation streams used. I have already referred to the scoping meetings and hui, and the background papers. The other processes were as follows:

- *The public meeting programme*. Although the population of New Zealand is smaller than that of Hong Kong, it is spread out over a land area roughly equivalent in length to England and Scotland. So an adequate consultation with the people of our country involves much travel. The Commission spent several weeks visiting 15 different towns where we held public meetings typically lasting from 2 to 8 p.m. The next morning we would travel to the following venue.

  The meetings commenced with a format similar to that used at the scoping meetings, a round table discussion with the card sort process.

This was followed by the reporting back from each group, and finally an open forum with speakers from the floor. The attendance varied from 15 to 200.

- *The Maori hui programme*. Like the public meetings, the Commission's 10 one day regional hui were spread throughout the country. These hui, mostly held on Saturdays, provided a formal channel in the setting of a marae, a Maori meeting place, for people to present oral or written submissions directly to the Commission. Each regional hui was preceded by Commission staff running workshops in the area, 28 altogether, at which the role and task of the Commission were explained.

  The Maori consultation programme ended with a three day national hui held at the place traditionally regarded by Maori as the country's premier marae.

- *The Youth Forum*. The Commission wished to consult directly with youth, as the outcome of its inquiry would impact particularly on this segment of the population. A one day forum was held open to 100 youth aged between 12 and 25.

To encourage participation, the Commission paid for 20 to travel to Wellington to attend, selection being based on an essay competition.

- *The Public Submission process*. To assist fulfill the mandate to consult with the people of New Zealand in a way enabling them to express their views clearly, the Commission invited written submissions from the public. Following widespread advertising, over 10, 000 submissions were received. These were painstakingly analysed, and the results of the analysis appear in detail in one of the appendices to the Commission's Report.

- *The Public Opinion survey*. Conscious that participation in its processes was a matter of choice, and self selection, the Commission decided to call for a public opinion survey. Independently conducted by professionals, this surveyed over 1000 New Zealanders selected at random, by means of a detailed telephone questionnaire. Again, the results were published in an appendix.

Although, like the public submissions, the survey disclosed an anti-GM sentiment, views obtained on the survey showed a more even spread of public opinion than the submissions indicated.

- *The Commission website*. From an early stage of our consultation, the Commission maintained a website. On it we posted, among other things, the background papers, all our major communications with participants, the briefs of evidence of the witnesses, the verbatim evidence record of our formal hearings, most of the over 10,000 written submissions, and much other information of use and interest.

We used e-mail as our principal mode of communication.
I started my legal life in a different era, in a law office where as was then commonplace, female typists outnumbered every other occupational group. It was therefore a strange experience, in what I expect will be the last office I work in, to be in a setting where all the senior executives were female, and the only person with any notable typing skills was a male!

Before I return to the hearing process, this is an appropriate moment to record that the Commission was given a period of one year to complete its consultation and present its Report. Given the scope of the subject, this may not seem a generous allowance, but the Commission appreciated there were good reasons why the process ought to be completed promptly. Concurrently with the announcement of the Commission, a moratorium on GM was declared until three months after the reporting date, meaning that no new research could be initiated. In the result, projects were on hold, investment suspended, careers left in uncertainty. Thus it was essential the exercise should be completed promptly so that Government could make decisions and people knew where they stood.

In the New Zealand experience not many Commissions finish their assignment within the time allowed. In the event, we were 8 weeks late, some of the extra time being required for the printing the Report, which was available for issue to the public immediately after our formal delivery to the Governor General. We also published the Report in CD Rom form, and it was available, free, on our website.

Would extra time have made a material difference to the outcome? I do not believe so. We could have made some good use of extra time, I would not deny that. For example, we could have mounted a public education programme which would have made the consultation process easier. There were some especially difficult issues, other than the central one, which may still require further study: two examples are liability for damage caused by GM, and indigenous intellectual property rights. In regard to liability, our tentative view was that no change was needed to the existing common law, but that more intensive study by the Law Commission might be helpful. The second subject is partly dependant on the outcome of claims already before a specialist body, the Waitangi Tribunal, which adjudicates on Maori grievances. Certainly there was no way the Commission could advance these matters further in the time allowed, but I am not saying that with more time we could have resolved them more satisfactorily. The Commission was not the appropriate forum to make final recommendations on either issue.

In other respects, I have no doubt that had the Commission deliberated for two years instead of one, it would have received even more information than the wealth it accumulated. It could have traveled overseas, for which we simply did not have the time. But as noted earlier, we heard from numerous international experts, either in person or by audio or video links. We found the video link a particularly effective means of obtaining the evidence of those unable to make the long journey to New Zealand.

Most importantly, I doubt whether, given any amount of additional time, we would have heard any viewpoints other than those which were so conscientiously urged upon us by those who participated in the Commission's extensive range of processes.

I return to *the formal hearings.* Here, the procedures we followed had to be accommodated within the available time. This perhaps is a subject of interest to those working in the judicial system, where the tradition of the common law has been that the parties present their cases at such length, or with such economy, as they choose. With over 100 presentations, and many wishing to cross examine, this was not a luxury the Commission could afford.

Our basic approach was that we would deal with two presentations per day. We would not carry presentations forward from one week to the next, or (with a couple of exceptions) even from one day to the next, as the many busy people who came from various parts of the country expected to be heard on the day and at the time notified. We found it necessary to impose strict time limits on presentations. We allowed a maximum of 80 minutes, leaving it to the parties to allocate this among their witnesses. All witness briefs were in written form which the Commission members read in advance. Witnesses did not read their briefs to the Commission, but spoke to them. Many used slides or transparencies to enhance their presentations.

Cross examination was by leave of the Commission, although in fact we did not ever refuse leave.

On occasions when a number of parties wished to cross examine, we had to place strict limits on the time. Sometimes – not often, I am happy to report – this caused friction. However, it sharpened the cross examiner's attention to sticking to the essentials.

Given more time I am sure we would have heard longer presentations and more extensive cross examination. But again I doubt whether we would have gained much by allocating more time, which inevitably would have led to the Commission requiring a longer period for completion. Especially in the initial stages, participants may have felt dissatisfaction with the control on time. However, except on isolated occasions no one made an issue of it. The fact that the Commission made it obvious it was treating everyone the same may have helped deflect any criticism. When the Report came out, needless to say not everyone was pleased – that would have been impossible, and in any case was not our objective – but there were no complaints about the process. The Green Party, who more than anyone have expressed dissatisfaction with our recommendations, made a point of saying the process was fair.

The evidence was recorded verbatim by a MSR/CAT service (machine shorthand recording with computer aided transcription), and the Commissioners were able to follow and check the evidence on screen. The briefs of evidence, and the corrected transcript were posted on the Commission website.

To round off my account of the hearing process, bearing in mind that some participants made their presentation many weeks before others, the Commission made provision for the calling of rebuttal evidence by leave. We also gave the opportunity for final submissions, both of a general kind, and on specific legal subjects. A number of the participants made final submissions. In total, the formal hearings occupied 13 weeks, spread over the period October 2000 to March 2001. During this time we heard evidence or submissions from some 300 persons.

Writing the Report

After all that, came the really hard part. How did we do it? It would not be appropriate to go into too much detail. But I can say, first, that the Commission regarded the structure of the Report as a critical feature, and from an early stage of its processes spent much time on trying to organise the subject matter into a logical and cohesive whole. As was obvious, there were a number of topics that had to be dealt with as separate subjects, for example economic issues, research, crops, food and medical uses. Sometimes, in a schematic visualisation these topics were regarded as "verticals".

Others, which would be referred to as horizontals, were of a kind that permeated all topics, for example issues relating to the Treaty of Waitangi, environment, health, culture, ethics, liability.

Having determined the topics, we sorted them into what seemed the best order, and proceeded with our writing. The order changed several times but eventually fell into what we thought was the most logical sequence. We scoped each topic in a workshop setting, teasing out the subheadings which would need to be addressed.

As to the actual writing, I do not speak entirely in jest when I say we shut ourselves in a modest room, drank a lot of coffee and emerged when the last draft had been redrafted for the last time. Our thinking sessions were facilitated in a workshop format, and our writing was assisted by the Commission's team of analysts. Eventually we were rewriting, polishing and repolishing drafts, somewhat in the manner with which Judges are familiar in relation to difficult reserved judgments. Finally we reached the proof-reading stage.

This is an opportunity to say that we were fortunate in the ability and dedication of those assisting us.

Producing the Report within the available timeframe made huge demands on both the Commissioners and the staff. However, the responsibility for both the substance of the Report and its verbal expression rested entirely with the Commission.

The outcome

The Commission's major recommendation was that New Zealand ought to keep its options open. We concluded that it would be unwise to turn our backs on the potential advantages offered by GM, but that we should proceed carefully, minimising and managing risks, and continuing to encourage established forms of agricultural production.

We did not accept the demands that New Zealand should become GM free. Overall the Commission was satisfied the existing institutional frameworks were sound, but we recommended they should be strengthened and amended in a number of details. In this respect the broad effect of our recommendations was that the application processes governing GM research should be simplified at the low risk level, with a greater degree of oversight required where a higher degree of risk was involved, particularly at the stage of open release of GM crops.

Our high-level findings included the desirability of a separate specialist body to make recommendations on ethical and cultural issues; the need for a strong overall biotechnology strategy; and establishment of a new office, the Parliamentary Commissioner on Biotechnology, to exercise a public watchdog role over developments in this field.

The Report's reception

Industry, including the representatives of the primary industries which are critical to New Zealand's economy, farming groups, companies engaged in the Life Sciences, gave the report a favourable rating. Understandably, the Greens did not, and are continuing to lobby for a GM free New Zealand. Generally the media have commended the Report. I mention here that the media gave our processes wide and accurate coverage, and did not try to sensationalise the issues.

Government has taken time to study our findings. The real test will come at the end of October when Government will announce its reaction.

Postscript: the NZ Government adopted the thrust of the Report, namely the overall strategy of preserving opportunities and allowing precautionary progress on genetic modification while safeguarding the health and safety of New Zealanders and their environment.

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Thomas Eichelbaum September 2001