



Development and Effectiveness of the Queensland Model

By Evlyn Fortier & Marc Saner

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For further information, please contact:

Marc Saner
Institute On Governance
122 Clarence Street
Ottawa, Ontario
Canada K1N 5P6
tel: +1 (613) 562-0090
fax: +1 (613) 562-0097
info@iog.ca
www.iog.ca

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Development and Effectiveness of the Queensland Model – Draft 1.0

1.0 Introduction

The Queensland Code was developed over a relatively brief period of time. In May 1999, the Premier of Queensland, Peter Beattie, announced a 10 year, \$270 million programme to promote the development of the biotechnology industry in Queensland. As part of this programme, the Government declared, in November 1999, that a code of practice for biotechnology should be developed. The draft code was presented for the first time at a conference in Boston, *Bio2000*, in March 2000. The code was supposed to be finalized by July 2000, so there was very limited time for public consultation. The actual final version of the code came into effect on September 1, 2001.

This rapid development and implementation occurred in a particular context. Premier Peter Beattie announced his intentions to build Queensland into “Australia’s smart state” at one of the world’s biggest meetings of the biotech industry in Seattle in May 1999 (Bio ’99). He stated that he “identified with the movers and shakers in biotechnology” and said, “Like you, I am obsessed with the immense potential biotechnology has to improve our quality of life and to create a future for our children.”¹ Premier Beattie, who was also the Minister for Trade, was a promoter of biotechnology as an important factor in the economy of the State of Queensland. Furthermore, he wanted to position Queensland on the international stage as a future biotechnology hub in the Asia-Pacific region.

However, Premier Beattie’s promotion of biotechnology in Queensland came at a time when European markets for biotechnological agriculture products were closing down and the public in general was becoming increasingly nervous about biotechnology. One reaction to the public concern and market decline was the establishment of the Office of the Gene Technology Regulator (GTR) in the Commonwealth of Australia in 2001. The development of the Code by the Queensland Government coincided with the development of this national regulatory framework for Australia. The Code was developed to protect the investment the Queensland Government was making in biotechnology, and to assuage public concerns.

The Queensland Code was approved by the State Cabinet on June 12, 2001 and became effective on September 1 of that year.

In Canada, there has been a certain amount of interest in the Queensland Code since its implementation. In June of 2003, at a Stewardship Framework Workshop in Strathmere,

¹ Hindmarsh, Richard and Kees Hulsman, “Ethical Practice for Biotechnology,” *Australasian Science*, June 21, 2000.



Ontario, an interdepartmental group of stakeholders from the Canadian Government expressed some willingness to consider a similar code for Canada. This prompted Health Canada, which leads the development of a stewardship framework for biotechnology, to commission research on the possibility of developing a code of practice for biotechnology in Canada based on the Queensland model.

The Institute On Governance conducted this initial research in the fall of 2003. We interviewed a group of people from a cross-section of stakeholders to canvass their views on a code and on the Queensland Code as a model for a Canadian code. During our interviews, we were frequently asked about the Queensland model. Many of our interviewees wanted to know two things:

- How was the Code developed in Queensland? (i.e., “How did they do it there?”)
- Is it working? Is it effective? What impact has it had?

These interviewees expressed reservations about endorsing the Queensland Code as a model because they thought Canadians should know more about its development and efficacy before accepting it.

The Institute On Governance has conducted a second stage of research to investigate these aspects of the Queensland Code. We have looked at literature about the Code to examine formal reactions to it. But the bulk of our research involved telephone interviews with a number of contacts in Queensland. This allowed us to gain insights into the Code by gathering the views of those most immediately involved in its development and most affected by it.

The following report presents the results of our research. In the first section we discuss the methodology of our interviews. In the second part, we present an analysis of the statements of the interviewees in Queensland. This is followed by a conclusion and points to consider and an appendix listing the documents we reviewed.

2.0 Methodology

The list of potential interviewees was compiled by using the Institute On Governance's biotechnology data base initially. Through our contacts in the Government of Australia, we were referred to qualified potential interviewees in Queensland. We sent e-mails to these contacts, explaining the nature of our research. One person replied with a detailed e-mail response and four people agreed to be interviewed by telephone. The interviewees came from the following organizations in Queensland:

- Science Regulation
Department of State Development and Innovation
- Pacific Seeds
- Research Ethics
Griffith University
- Queensland Institute of Medical Research
- BioProspect Ltd.

The interviewees were asked to discuss the Queensland Code with regards to a number of questions. These questions can be listed under two headings:

Development Process:

- What were the main motivations for the code?
- How was it started? By whom?
- Who took the lead? Who was consulted?
- How was it implemented?
- Were there any lessons learned from this process?

Effectiveness:

- What effect has it had on biotechnology in Queensland?
- Is it well respected and judged successful?
- Does it attract investment?
- Does it impede research?
- Does it pose ethical concerns?

The interviewees presented responses to as many of these questions as they felt qualified to answer. An overview and analysis of their responses is presented in the next section.



3.0 Analysis of Statements by Interviewees

The interviewees were asked about the development of the Code and its effects. For the most part, the interviewees were more interested in discussing the present state of the code and its effectiveness than they were in talking about its development. In the following, the responses by the interviewees to questions about the Code are analyzed into two main sections: Development and Effectiveness. The Effectiveness section is sub-divided into two sections: Positive Statements and Negative Statements. This division reflects the division in views of the interviewees regarding the overall effectiveness of the Queensland Code.

3.1 Development

The following responses to the questions employ the actual statements made by the interviewees:

What were the reasons for the Code?

- One of the reasons behind the Code, according to one interviewee, is that there are three states in Australia that are in competition with each other and implementing a code put Queensland ahead in the development of biotechnology.
- Another reason for developing the Code was for the government to justify the money it was spending on biotechnology and to appease the anti-GM lobby groups.
- One interviewee pointed out that the Code was developed because Premier Beatty wanted Queensland to be a centre for biotechnology. The Premier promoted biotechnology and the Code. The fact that the Premier was instrumental in the development of the Code was an enormously powerful signal for its acceptance.

How was it done?

- The Code was launched by a new government department that was created just for the purpose – the Department of Innovation and Information Economy (DIIE).
- The interviewee from BioProspect Ltd. said that the Queensland Code came out of their collaboration with the Government. BioProspect Ltd. was the first company in Queensland to do bioprospecting in a meaningful way. The company sat down with the Government to design a policy for bioprospecting in Queensland. This became the forerunner of the Queensland Code.
- BioProspect had a lot of input on how the Code should work out in the field. BioProspect worked with DIIE and “workshopped” the Code through the system of development and implementation.

Who was consulted?

- The interviewee from BioProspect said that there were a lot of public forums during the development of the Code in order to talk to NGOs and create a dialogue with anti-biotech groups. There was also a lot of consulting done with aboriginal groups.
- When the Government got to the draft stage of the code, they held day-long seminars.
- The statements by the interviewee from Bioprospect were in direct contrast to three interviewees who said that the government did not consult with stakeholders before they developed the draft code but did consult with them afterwards. One of these interviewees stated that stakeholders were only consulted about the questionnaire to be used for annual reporting.
- One interviewee said the government did not do enough consultation before it developed a draft code. Much more consultation was done in Canada for the development of the Tri-Council Policy Statement, according to an interviewee. This person had visited Canada and had been impressed by Canada's ethical framework for biotechnology.
- Of these latter interviewees, one said that he could not comment on the development of the Code because he was not in on the development side of things – he only knew the code as a present user.

How much did it cost?

- Although we asked about the cost of developing and implementing the Code, the interviewees did not supply an answer to this question.

What problems were encountered?

- The Code requires that companies and research institutions submit an annual report. One interviewee said that the first year his organization had to submit a report, there were no guidelines for this. So he had to design his own guidelines. He submitted them along with his report and now they have been used as the template for subsequent reports. He implied that the government was not prepared for this aspect of the Code.

What were the lessons learned?

- One of the major lessons learned from the development of the Code is that development has to be supported from the very top. The government has to articulate where it is going with biotechnology. One interviewee claimed that the only reason Queensland has a code now is because Premier Beatty was very proactive about biotechnology in Queensland and made the Code a priority in the course of promoting biotechnology. This interviewee stated that a code will never succeed unless it is generated and supported from the very top.



3.2 Effectiveness

3.2.1 Positive statements

What are the benefits of the Code for the Queensland Government?

- The Code has been beneficial for the government in a number of ways. Compliance with the Code includes an annual reporting requirement where companies indicate measures taken to ensure compliance. This data is matched with complaints received from the public. Compliance has been very impressive and has also had the added benefit of allowing the government to determine and measure the size and scope of the biotechnology industry in Queensland. The compliance requirement of the Code provides some valuable anecdotal evidence as to the growth of the industry, which the government uses to verify data received from other sources. The government estimates that it has achieved 95% subscription to the Code. The outliers are usually recently incorporated startup firms.
- Successful implementation of the Code has required development of sound personal relationships with industry and researchers on the part of the government. This has been a benefit to the government because it has developed a network of expert contacts who have been happy to assist with efforts in other areas. This network of expert contacts has been a benefit to industry and researchers because they have had a clearer path to government advice/assistance in some cases.
- The Code has also been a benefit to government because it has been valuable in steering government policy processes on issues relating to stem cell research, genetic privacy, gene patenting, GM crops, gene therapy and biodiscovery.
- It has been extremely successful as a positioning statement. There has been interest in the Code from places as far afield as South Africa, the United Nations and New Zealand. Also, the Government of the State of Victoria and the national government of Australia are developing their own codes, based on the Queensland model.
- Implementing the Code has painted the Government of Queensland in a good light. It makes the Government look like a caring government. It is a sign of a thinking government.

What have been the benefits for industry and research?

- The interviewee from BioProspect Ltd. felt that the consulting done with aboriginal groups was beneficial for industry. The formula that came out of the consultation involved awarding a 10% royalty from commercial bioprospecting to aboriginal groups in a benefit-sharing agreement. This meant that the commercial groups did not get bogged down with aboriginal claims as long as the companies abided by the policy.

- BioProspect is a small company and feels that the Code is very good for small companies. BioProspect could guarantee the large U.S. company that it dealt with that it had a license and policy in place. The interviewee from BioProspect claims that the Code gives large U.S. firms (customers) confidence. Because their company was a signatory to the Code, they could assure their U.S. customer that they could collect in the field (conduct bioprospecting) with no problems.
- Industry sees the Queensland Code as better than the codes of other States, e.g. the code of Western Australia. There is more flexibility with the Queensland Code.

What have been the benefits for the environment?

- Before the policy came out, there was a lot of piracy of biospecies in Queensland without license and approval. Without a policy it would have continued to happen. Regulation in Queensland had not got to the point of development to protect against biopiracy. There was a need to protect the environment and also commercial enterprises. Since the implementation of the Code, industry has complied with the rules because they approve of the attitude of the Queensland Government. This has resulted in protection against biopiracy.
- There was an item in the Code about biodiversity that became a regulation later on when it was seen as necessary. Thus, biodiversity was first protected by the Code and the realization of the need for regulation came about because of the Code.

What have been the social and ethical benefits?

- Three of the interviewees indicated that overall it was worthwhile designing and implementing the Code. Society is demanding greater accountability from public and private institutions, especially where government funding is concerned. The Queensland Code is a means to provide this accountability.
- The interviewee from BioProspect said that the Code was an effective communication and educational tool. Environmental groups now see that the current biotechnology policy protects everybody. This interviewee claims that the Code dismantled the perceptions of the “Greenies.”
- The interviewee from Pacific Seed said the Code is somewhat useful. It could be justified for issues other than those covered by the science-based federal legislation (the Gene Technology Regulation Act) such as market, social and ethical issues.
- One interviewee said that the Code is a useful articulation of principles.
- As a public relations exercise, the Code is working very well. The general public doesn’t really know about the Code in Queensland, but the Minister can stand up and say that the government is doing the right things regarding biotechnology because there is the Code.
- The Code is also a good prompt to get different areas talking to each other. It enforces reflection once a year (on biotechnology practice).

- The Code provides an overarching umbrella that everyone is under from each research community.
- Companies and institutions that do not receive government funding do sign on to the Code because it demonstrates their willingness to be ethical and comply. It involves an enhancement of their reputation.
- Since the implementation of the Code, several institutions have created a position for an ethicist on staff. They did not think it was necessary to have a full-time ethicist before, but a year after the Code was implemented, they had created such a position.

3.2.2 Negative Statements

What impact has the Code had?

- Two interviewees claimed that the Code has not had any effect at all on the practice of biotechnology in Queensland. There were already regulations in place in Australia, such as the Gene Technology Regulator (GTR). For each type of GMO in Australia, there has to be accreditation by the Regulator, the work has to be registered and there has to be the right facilities in place. Since there are already federal rules on a national basis, the Queensland Code does not contribute anything. By complying with federal legislation, an organization complies with the Queensland Code. Also, complying with the Queensland Code means that the organization is just complying with the federal legislation. So the Code adds nothing.
- For the research community, there were already existing codes so the Code has had no impact. For industry, complying with the Code is meaningless (“just another layer”) because they already have to comply with strict regulations.

Is it well respected and judged successful?

- The Queensland Code was merely for public relations (two interviewees said it was “just a PR job”). The Queensland government was keen on developing biotechnology in Queensland and the Code was part of a political agenda. It was just part of the promotion of biotechnology in Queensland. It was used to justify government spending on biotechnology and to appease the anti-GM lobby.
- An interviewee said the using the word “Ethics” in the title of the Code was there to get the anti-GM lobby groups on-side. This interviewee thought it was very clever to use the word “Ethics” in the title of the Code. However, implementing the Code hasn’t placated the anti-GM lobby groups according to one interviewee, who also said, “But nothing will.”

Is it judged cost-effective?

- For the government, the Code does carry with it a substantial resource burden. Managing subscription, assessing annual reports, investigating and reporting on alleged breaches, all absorb man hours. Similarly, providing the broader community with information on the Code and how it works has involved many public speaking engagements across the State, which can be costly in terms of labour and travel expenses.
- The annual reporting requirement has received criticism as an administrative burden for industry and research groups.
- Some groups see the Code as being a matter of over-control. It just adds an unnecessary layer of reporting to the burdens of biotechnology institutions.

Does the Code pose ethical concerns?

- The Code is not mandatory for companies that do not receive government funding. One interviewee says that if someone is going to break the rules, then that person will do it despite the Code. There are no extra penalties involved in the Code.
- For groups and organizations that receive government funding, there is a “stick” for compliance with the Code. But what about groups from outside Queensland?
- The only requirement placed on organizations is to submit an annual report. There is no teeth in the Code and it requires no extra compliance outside the existing legislation.
- One interviewee stated that 99% of what goes on in biotechnology practice is innocuous or spot on anyway. Of the 1% that is not, how much of it could have been addressed by the Code? If things have slipped through, we won’t know for years.
- The Code has done nothing for the governance of biotechnology and has not had much impact on the governance structure.
- One of the problems with the Code is that, although there are a lot of activities that fall in the gaps in legislation, the Code does nothing to correct this. The Code could have filled in the gaps. It could have provided a framework. But the Code really isn’t a good governance structure and it does not address the problem of filling the gaps in legislation.

Four of the interviewees were from non-government organizations, two from industry and two from research institutions. These interviewees presented the views of actual users of the Code, thereby giving a feeling for how the Code is perceived as to its daily effectiveness and impact on people in the field. The following table presents a summary of their views:

Table – Analysis of Statements of Industry Reps and Research Reps

	Positive Statements	Negative Statements
Industry Reps	<ul style="list-style-type: none"> • Code establishes good relations between Government and industry • The Code is flexible • It is useful for other issues (market, social, ethical) • It provides a good communication and education device with anti-GM groups • The Code means they don't have to deal with aboriginal claims • There is increased confidence on the part of offshore customers • The code was effective against biopiracy 	<ul style="list-style-type: none"> • The Government didn't consult with stakeholders to develop the Code • The Code has had no effect • The GTR was already in place • The Code has doubled the amount of reporting they have to do • The Code was/is only a PR exercise • The Code is not mandatory for some organizations • It has no teeth • The Code hasn't placated the anti-GM groups
Research Reps	<ul style="list-style-type: none"> • The Code is a good prompt to get areas talking to each other • The Code provides an over-arching umbrella that one is underneath from each research community • The Code covered biodiversity, which became regulated later • It paints the Government in a good light as caring and thinking • It satisfies a need – society is demanding greater accountability especially where government funding is involved • After the Code came into effect, organizations created ethicist positions on staff 	<ul style="list-style-type: none"> • There was not enough consultation with stakeholders • The Code hasn't done enough for the governance of biotechnology • The Code could have filled in the gaps but it doesn't • It is only a PR exercise • The Code has no impact on practice • The only requirement is an annual report • It is not necessary because most research practice is innocuous and the Code would not address research that is not innocuous • The Code just puts another layer of documentation burden on researchers

4.0 Conclusion and Points to Consider

4.1 Conclusion

The general consensus of the interviewees was that the Queensland Code was a worthwhile document and that it was a commendable exercise on the part of the Government. The views ranged from very positive to mildly critical, but the criticisms seemed to be that the Code was merely ineffectual and just added another layer of reporting rather than that the Code was actually harmful.

The development of the Code was viewed as being primarily for the benefit of the promotion of biotechnology in Queensland. Since much of the development included industry involvement, the Code has had the support of industry from its inception. Research institutes appear to feel that they were not consulted enough in the development and implementation of the Code. The development of the Code was done for political purposes and is generally viewed as being very good for the public image of the Government. However, in the same vein it has also been dismissed as merely a public relations exercise and its development was not motivated by substantial ethical concerns.

Perhaps one of the most important statements by an interviewee about the development of the Code was that it would never have come into existence if it had not been part of the mandate of the Premier. The fact that he wanted to promote biotechnology in Queensland and supported the Code as part of his promotion was the only reason the Code ever became a reality. This interviewee claimed that the development has to be supported from the very top. If it is not, then it would be very, very difficult to develop and implement a code.

The Code is considered beneficial because it has enabled the government to monitor the activities surrounding biotechnology in Queensland, it increases confidence on the part of the public and it is acceptable to industry.

At least one industry representative believes that the Code has had no impact on biotechnology in Queensland. The only requirement of the Code for them is that signatories file a report every year. So the Code is ignored until they have to fill out the report. The signatories have to comply with the Gene Technology Regulation Act of 2001 anyway, and the Code adds nothing beyond compliance with the GTR. The research institutes also have ethics codes they already comply with and find the Queensland Code just more paper work.

4.2 Points to Consider

The most important point made by the interviewees was that the development of the Code requires support from the very top. It was emphasized that the Code only came into being because the Premier wanted it and promoted it. Without support from the top, according to one interviewee, the Code would probably not exist. The lesson for a Canadian code is that it would also need support and promotion from the very top in order to succeed.

In the course of development of the Code, the interviewees all commented on consultation. One interviewee claimed that there was a lot of consultation in various forms, and that after there was a draft document, there were workshops and forums. However, the other three interviewees claimed that there was not much consultation, there was not enough consultation, and there should have been more consultation. It seems they all thought consultation was important even though they disagreed how much there had been in the Queensland case. Therefore, it is important that the development of a Canadian code happen in an atmosphere in which there is transparent and open consultation of stakeholders from as broad a spectrum of areas as possible.

The interviewees also made points about the content of the Queensland code with reference to how Canada should proceed. One interviewee said that Canada should not just translocate the Queensland Code but should design its own. Other interviewees said that the goal of a code should be to inform research practice and not just be a public political document, which is one of the criticisms of the Queensland Code. The interviewees thought that the Queensland Code should be more disciplinary and have more teeth, so they thought that a Canadian Code should be very careful to avoid vagueness and “warm, fuzzy language.”

Overall, the interviewees thought that the Queensland Code had been worthwhile for their government to do, even if its effectiveness is not beyond doubt and they feel that it does not involve enough rigour for the practice of biotechnology in Queensland. The lesson from this is that it is worthwhile for other States and countries also to develop similar codes.

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