



Ethics Framework

Preface

Section 9 of the HSNO Act requires the Environmental Risk Management Authority to develop a decision-making methodology, which includes an assessment of monetary and non-monetary costs and benefits, and to apply it consistently. This methodology has been approved by the Government and established as an Order-in-Council.

To supplement the Methodology Order additional information is being published in the ERMA New Zealand Policy Series. Protocols are a subset of this series. The general Policy Series is published in conjunction with the Protocols to further describe policy decisions adopted by the Authority.

The Protocols indicate how the Authority proposes to confront some of the more problematic issues it is likely to face in its decision-making. They also outline how the Authority will interpret some of the key concepts found in the Act and the Methodology.

In preparing these Protocols the Authority has been conscious of both its needs, as a decision-maker, and the needs of its stakeholders. As decision-maker, the Authority recognises the value of Protocols as a means of assisting it to produce high quality decisions consistently over time. Similarly, stakeholder groups can benefit from the additional clarification of the way in which the Authority makes decisions.

This Ethics Framework Protocol was released in December 2005. The Protocols will continue to be refined over time as further information or insights into the Authority's decision-making become available.

Approved by:

Neil Walter
Authority Chairperson
3 November 2005

Foreword

This document describes the ethical framework developed and adopted by the Environmental Risk Management Authority (ERMA New Zealand). ERMA New Zealand has developed this framework to enhance its ability to ensure that ethical considerations are taken into account in a transparent and consistent way in carrying out its responsibilities under the HSNO Act.

The framework was adopted by the Authority at its meeting on 3 November 2005.

This ethical framework gathers together a range of relevant ethical concepts into a tool that can be used as an aid to decision making, as a foundation for making structured comments on issues where ethical matters are of concern, and as a guideline for ERMA New Zealand's everyday practice.

The framework is relevant to ERMA New Zealand and all its stakeholders, including applicants, submitters, and other government agencies with shared responsibilities.

Section 1 of the framework describes ethical issues and their relationship to environmental decision making, introduces the Hazardous Substances and New Organisms (HSNO) Act and ERMA New Zealand's role, and describes the rationale for the framework and how it was developed. Section 2 outlines the principles and standards that underpin the application of the framework. Section 3 outlines how the principles and standards will be applied.

Agency staff, and ERMA New Zealand's Ethics Advisory Panel contributed to the development of this framework. Submissions on ERMA New Zealand's May 2005 discussion paper on ethical issues also made a significant contribution in shaping the framework. It will evolve further as ERMA New Zealand and stakeholders gain experience with its application. ERMA New Zealand commits to regular review of the framework. Initially the framework will be reviewed no later than three years after formal adoption.

Approved by:



Neil Walter
Authority Chairperson
3 November 2005

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Introduction

Introducing ethics

Ethical issues are fundamentally about individual, group or societal answers to the questions ‘what do we value as good?’ and ‘what is the right thing to do?’¹. These are questions that are necessarily encountered in making decisions about environmental issues, including decisions about new organisms and hazardous substances. Societies use legislation to define what are, and what are not, acceptable activities. The making of legislation or regulation both reflects ethical values and has ethical consequences. Thus, debates on legislation have a strong ethical component.

Ethical considerations are closely related to cultural and spiritual values. Addressing ethical considerations is a practical way of canvassing cultural and spiritual matters. For example, respecting cultural differences and different world views must take into account spiritual values.

Many environmental decisions have both technical and ethical dimensions. Some decisions require the weighing up of a technically feasible action in terms of its ethical consequences. This leads beyond the question of ‘can this be done?’ to ‘should this be done?’.

A significant issue in environmental decision making involves beliefs about the relationship between humans and nature. There are many different world views. Some people believe that species and ecosystems have an integrity that should not be compromised. Feeling part of an overall system of being, life or nature is an important part of the ethical and spiritual beliefs of many people which often carries with it perceived responsibilities of stewardship. On the other hand, meeting people’s needs, especially to maintain life or address health issues, is considered by some to be a basic imperative for humanity.

There are also many practical problems in environmental decision making and management that raise ethical considerations. These include:

- sparse or poor quality data
- uncertainty or lack of understanding of cause-effect relationships
- long lead times between cause and effect and realisation of harm or benefit (thus involving the balancing of short-term gain against possible long-term loss)
- the need for complex interactions between the social, cultural, ecological, economic and technical aspects to be considered
- how to select reference points for measuring changes in ecosystems
- the need to consider the acceptability or tolerability of particular environmental risks

¹ The terms ‘ethics’ and ‘morality’ are used synonymously in this document.. The language of morality includes nouns such as ‘rights’, ‘responsibilities’ and ‘virtues’ and adjectives such as ‘good’ and ‘bad’ (or ‘evil’), ‘right’ and ‘wrong’, ‘just’ and ‘unjust’.

- the perspectives and needs of multiple decision makers and stakeholders
- complications arising from multiple objectives.

People have widely differing views on the best way to manage hazardous substances and new organisms. These views are often influenced by an individual's cultural or spiritual background, their understanding of the technologies involved, their views about the rights and welfare of animals and ecosystems, and their personal or family needs.

Ethical issues and the Hazardous Substances and New Organisms (HSNO) Act

The HSNO Act was enacted in 1996 to provide a mechanism for regulation of new organisms (including genetically modified organisms) and hazardous substances.

The purpose of the HSNO Act is *'to protect the environment and the health and safety of people by preventing or managing the adverse effects of hazardous substances and new organisms'*. The Environmental Risk Management Authority (ERMA New Zealand) was established to administer the HSNO Act. ERMA New Zealand is the body that approves or declines applications for hazardous substances and new organisms.

Social values, and an acceptance or assumption of ethical or value judgements, are embedded in the language of the HSNO Act as exemplified in expressions such as *'intrinsic value'*, *'relationships of Māori to their culture and traditions'*, *'economic and related benefits'*, the *'maintenance and enhancement of the capacity for people and communities to provide for their own economic, social and cultural well-being'*, and the definition of environment itself.

These expressions are referenced in the purpose and principles of the HSNO Act. Their importance was strengthened in the recent amendment to Section 68(a) adding *'cultural, ethical and spiritual'* to the list of significant effects allowing for Ministerial call-in of applications. The Minister for the Environment has the power to 'call-in' an application (effectively to reserve the decision), where the Minister considers that the application has significant cultural, economic, environmental, ethical, health, international or spiritual effects, or if the decision may have significant effects in an area where the Authority lacks sufficient knowledge or experience.

The information needed to make wise choices under the HSNO Act goes beyond what might be considered 'technical' or 'scientific' information. It is also important to understand the ethical issues and implications of proposals. These are, in essence, the beliefs that people hold about the consequences of decisions about new organisms and hazardous substances, the factors that should be taken into account in implementing the HSNO Act, and the way that decisions are made.

ERMA New Zealand's approach to making decisions on applications for new organisms and hazardous substances is defined by the HSNO Act and the ERMA

Methodology². HSNO decision processes rely on a weighing up of adverse effects and beneficial effects (risk/benefit analysis) and include a determination of whether both individual risks (adverse effects) and cumulative risks are acceptable or unacceptable.

HSNO processes reflect ethical considerations in a number of ways. These include public participation processes and factors that the Authority considers in determining how risk averse it will be in particular decisions about new organisms and hazardous substances.

Maori cultural and spiritual values

Consideration of Māori cultural and spiritual values and matters relating to the Treaty of Waitangi, is already an integral part of ERMA New Zealand processes and decision making.

Part 4A of the HSNO Act establishes a committee called Ngā Kaihautū Tikanga Taiao (Ngā Kaihautū). Its role is to provide the Authority with ‘*advice and assistance*’ from a Māori perspective on ‘*matters relating to policy, process, and applications*’.

Nga Kaihautu has developed a protocol “*Incorporating Māori Perspectives in Part V Decision Making*” which provides a guide to assist HSNO decision making processes to take account of Māori cultural and spiritual values, and Treaty considerations.

While the Ethics Framework includes consideration of issues relevant to Māori it does not intend to imply a separation of Māori and non-Māori ethical considerations. Rather, it complements these protocols while recognising the unique status of Maori as Tangata Whenua.

Nga Kaihautu may engage with the Ethics Advisory Panel to consider any ethical matters of common interest or concern.

Rationale for an ethical framework

Ethical problems do not necessarily have a single ‘right’ answer. However, where ethical insights and reasoning are included in the decision-making process it is more likely that better informed and more acceptable decisions will result.

A review of existing approaches to addressing ethical issues showed that in a range of relevant jurisdictions (including international, national and regional level) ethical concepts have been brought together in the form of ‘declarations’ or ‘statements’ or ‘groups of principles’. Such assemblages may be considered as structures or frameworks. This ethical framework is in practice the gathering together of a range of

² The ERMA Methodology is established as an Order-in-Council as required under Section 9 of the HSNO Act. It describes the formal decision-making process that ERMA follows in making decisions on applications for new organisms and hazardous substances.

relevant ethical concepts into a 'tool', for example, as an aid to decision making, or as a foundation for making structured comments on issues where ethical matters are of concern. ERMA New Zealand decided that this ethical framework will enhance its ability to ensure that ethical considerations are taken into account in carrying out its responsibilities under the HSNO Act. This framework imposes discipline on all aspects of the HSNO application process, and makes the consideration of ethical issues more transparent and more consistent. Its application over time will allow ERMA New Zealand to demonstrate to applicants, submitters and the public where and how ethical principles are taken into account.

In developing this framework, ERMA New Zealand has drawn on the critical concepts identified from a range of sources and of previous experience. Most of the existing material relating to ethics concentrates on identifying the underpinning principles. This framework is broadly consistent with emerging international thinking on ethics in environmental management and decision making. It is also consistent with international thinking and practice which recognises ethical considerations as a dimension of physical, biological, cultural and community considerations rather than as distinct from these considerations.

This framework suggests an approach that allows ethical issues to be integrated into all aspects of HSNO decision making and related activities.

It is important to be realistic about what this framework can and cannot do. Having an ethical framework does not eliminate the need for careful consideration and judgement. The framework will not necessarily make complex decisions easier, but it should enable good decisions to be made with confidence, increase transparency and help justify decisions.

It is common for there to be tension between different ethical principles. In these circumstances a choice may need to be made between two 'goods' or 'rights'. The ethical framework will be helpful in identifying these circumstances and may assist in resolving them. Nevertheless, decision makers still need to apply judgement when choices must be made.

This framework adds to and enhances already existing approaches for recognising ERMA New Zealand's statutory responsibilities under the HSNO Act.

Development of the framework

In July 2005 ERMA New Zealand, produced and circulated a discussion paper³. ERMA New Zealand's Ethics Advisory Panel played a major role in developing the discussion paper.

ERMA New Zealand received thirty-two submissions on the discussion paper. These encompassed a wide range of views and were received from diverse sources. There

³ This discussion paper plus the background supporting material is available at <http://www.ermanz.govt.nz/resources/publications/pdfs/EthicalIssuesDP0505.pdf>
<http://www.ermanz.govt.nz/resources/publications/pdfs/EthicalIssuesDP0505BG.pdf>

was strong support for a framework that would help to enhance current ERMA New Zealand processes.

Submissions included comments about the importance of developing a framework and the structure of the framework, and more general expressions of concern about genetic engineering, the potential for a framework to inhibit innovation and the perceived limitations in addressing cultural and spiritual aspects. ERMA New Zealand believes the submissions indicate a deeply held interest in ethical issues in New Zealand society. In developing this final version of the framework ERMA New Zealand took all of these views into account, and the quality of the framework was enhanced by the ideas and suggestions in submissions.

As already noted, ERMA New Zealand has adopted this framework to make consideration of ethical dimensions consistent, explicit and visible. It will be a useful tool through which ethical, spiritual and cultural beliefs can be recognised and brought into HSNO processes. ERMA New Zealand's expectation is that the framework will enhance the HSNO process for applicants and submitters by providing clarity and consistency around what applicants are expected to provide and by giving submitters a context for their submissions. ERMA New Zealand believes that rather than increasing the complexity of the application process, use of the framework could contribute to mitigating impacts, and the costs associated with HSNO processes.

Other sources of guidance

Other ERMA New Zealand documents are also relevant to the consideration of ethical matters. These include:

- The Methodology
- The Protocols, for example, *Incorporating Māori Perspectives in Part V Decision Making*
- The Technical Guides, for example *Decision making: A Technical Guide to Identifying, Assessing and Evaluating Risks, Costs and Benefits*
- User Guides to making an application and the Application Forms themselves.

These documents may be found at <http://www.ermanz.govt.nz/resources/index.asp>.

Principles and Standards

The contents of the framework

This framework acknowledges that individuals and communities hold a range of ethical views. The framework is not simply a recipe, a checklist or a set of decision criteria. Instead, it is a structure that aims to increase confidence that ethical considerations are identified and respected, and that all relevant information is made available and considered. In particular, it is a tool for assisting all participants in the ERMA New Zealand decision process to:

- ask the ‘right’ questions in order to identify areas where there are ethical matters to be considered, and
- use the answers to these questions to explore whether and how ethical considerations need to be addressed both in preparation of applications and in decision making.

In addition to the introductory material in Section 1, this framework has three components:

- ethical principles
- procedural standards
- operational processes.

The ethical principles are the foundation of the ethical framework. They help to identify the critical ethical questions that need to be addressed in ERMA New Zealand processes. The principles are described in more detail in Appendix 1. The procedural standards describe the ethical dimensions of the processes that are used to make decisions.

Operational processes for applying the principles and standards are described in Section 3, and will ensure that these matters are built into all HSNO and ERMA New Zealand activities.

Ethical principles

The ethical principles used in this framework are of two types: general and specific. The inclusion of general and specific principles is not intended to suggest a hierarchy. The specific principles are manifestations of the general principles. Each specific principle involves respect for the general principle and failure to respect a specific principle implies a failure to respect the general principle.

As noted previously, these principles reflect current international thinking in terms of ethical principles relevant to environmental management and are found (albeit expressed differently) in a wide range of cultural contexts.

The general principles are:

- respect for the environment
- respect for people (including past, present and future generations)

Each of the general principles is embodied in the terms of reference of ERMA New Zealand. The principles are interrelated and the framework is not intended to encourage their employment in isolation from each other in the evaluation of applications.

The specific principles are:

- concern for animal welfare
- concern for autonomy
- concern for co-operation
- concern for cultural identity/pluralism
- concern for human rights
- concern for human dignity
- concern for justice and equality
- concern for sustainability
- concern for well-being/non-harm

The principles are described in Table 1. As illustrated, they are not a discrete classification, and some concepts could be incorporated under others. The intention of the structure is to ensure that all matters are incorporated in the framework, even if in some cases there may be a slight overlap.

Table 1: The general and specific ethical principles

General principles	Specific principles	Sample expressions of specific principles
Respect for the Environment	<p>Concern for animal welfare Decisions should be made and activities should be carried out with respect for animals and with concern to minimise any suffering of animals.</p>	<p>The “3Rs” principle advocated by ANZCCART⁴ – replacement, reduction, refinement. Aiming to practice the “Five Freedoms”.</p> <p><i>Freedom from hunger and thirst</i> <i>Freedom from discomfort</i> <i>Freedom from pain, injury and disease</i> <i>Freedom to express normal behaviour</i> <i>Freedom from fear and distress</i></p>

⁴ Australian and New Zealand Council for the Care of Animals in Research and Teaching.

	<p>Concern for sustainability Decisions should be made and activities should take account of managing resources in the present taking into account the needs of future generations.</p>	Precautionary approach should be taken.
	<p>Concern for well-being/non-harm In addition to the basic concepts of well-being and non-harm with respect to flora, fauna and ecosystems, decision making and activities may require active intervention to ensure maintenance and enhancement of biodiversity and species integrity.</p>	<p>Precautionary approach adopted. Biodiversity strategy implemented. Intrinsic values of ecosystems and species taken into account.</p>
<p>Respect for people (including past, present and future generations)</p>	<p>Concern for autonomy Respect for persons requires acknowledgement of autonomy and the protection of those with diminished autonomy.</p>	Respect for privacy, confidentiality, and informed consent.
	<p>Concern for co-operation Any decision or activity should respect the human relationships between individuals and communities, ensuring equity and encouraging co-operation.</p>	All stakeholders have standing.
	<p>Concern for cultural identity/pluralism Decisions and activities should respect the world view of all peoples or communities including their spiritual beliefs, traditions, cultural identity and forms of knowledge.</p>	Endeavour to ensure that minority groups participate fully.
	<p>Concern for human rights Decisions and activities should be made or carried out with full respect for human rights and fundamental freedoms.</p>	Protection of vulnerable groups e.g. children and the aged.
	<p>Concern for human dignity Decisions and activities should be made or carried out with full respect for the inherent dignity of the human person.</p>	Sharing of benefits.
	<p>Concern for justice and equality Decisions and activities should be made or carried out with full respect for the universal principle of justice.</p>	<p>Non-discriminating/non-stigmatising decisions made or activities carried out. Ensure equitable decisions are made.</p>

	<p>Concern for well-being/non-harm Persons should be treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being.</p>	
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Procedural Standards

The procedural standards relate to the ethical dimensions of all ERMA New Zealand processes. Their application helps to provide mechanisms and criteria for ensuring that the general and specific principles are upheld.

These procedural standards (which are defined in more detail in Appendix 1) are:

- Honesty and integrity
- Transparency and openness
- Sound methodology
- Community and expert consultation
- Fair decision making process.

These standards are relevant to all stakeholders, including applicants and submitters.

Applying the principles⁵

There is a variety of ways and opportunities for ERMA New Zealand to reflect ethical considerations in its work, including decision making and other activities. The following sections describe the practical ways in which the ethical principles and procedural standards can be reflected in ERMA New Zealand's activities, and also in the activities of HSNO stakeholders.

Advice and information

ERMA New Zealand receives information and advice from a range of sources in the course of decision making and other activities. ERMA New Zealand will ensure that its approach to seeking and receiving advice and information reflects the ethical principles and procedural standards.

In 2004 the Authority established the Ethics Advisory Panel. The Panel has been involved in the development of this framework and will provide advice on ethical issues arising in the course of ERMA New Zealand activities.

As discussed in the third paragraph under Ethical issues and the HSNO Act section, consideration of Māori issues and concerns, both in terms of Māori cultural and spiritual values and matters relating to the Treaty of Waitangi, is an integral part of ERMA New Zealand processes and decision making. The Protocol "*Incorporating Māori Perspectives in Part V Decision Making*" reflects an example of activities being undertaken by Ngā Kaihautū consistent with the principles and standards presented in this framework.

Application of the principles and procedural standards to HSNO decision making

This section describes the practical ways in which the principles appear in the HSNO application and decision making process, and how ethical issues will be considered.

As outlined above, the critical need in decision making is to ensure that the Authority has access to comprehensive information about the ethical dimensions of an application. For the Authority to have all the information in front of it, the right questions have to be asked of the applicants at the right times (refer first paragraph under Development of the framework section). In addition, achieving comprehensive coverage of ethical analysis will be enhanced if applicants and interested stakeholders have a good understanding of these issues from the outset. Key features of the operational processes for ERMA New Zealand, applicants and submitters are outlined in Table 2.

⁵ This section describes the operational processes for applying the principles and standards.

ERMA New Zealand will take practical steps to develop guidance for stakeholders regarding the application of the principles and standards. ERMA New Zealand will also develop internal procedures to ensure that they are reflected in operational processes for decision making.

Table 2: Key features of operational processes for ERMA New Zealand, applicants and submitters

Stage	Operational processes	
	ERMA New Zealand Agency or Authority	Other parties Applicant or submitter
Pre-application stage	<ul style="list-style-type: none"> ▪ Provision of guidance by Authority to applicants which includes clear and helpful reference points on potential ethical considerations, and how to identify these in relation to a specific proposal. ▪ When alerts about ethical considerations are raised at the pre-application stage the Agency staff may contact the Ethics Advisory Panel for an opinion as to whether or not further information is required⁶. Informal interaction with the applicant at this stage may resolve a number of issues, or serve to highlight that ethical considerations will be a factor in the decision and/or the presentation of material. 	<p>Applicants</p> <ul style="list-style-type: none"> ▪ Adhere to guidelines provided by ERMA New Zealand. ▪ Identify the ethical considerations relevant to the application. ▪ Initiate early discussions with stakeholders who may have significant ethical concerns or questions.
Application	<ul style="list-style-type: none"> ▪ Inclusion of appropriate questions in application forms. 	<p>Applicants</p> <ul style="list-style-type: none"> ▪ Ensure that applications contain an appropriate level of detail on ethical considerations, supported by well evidenced information on how ethical concerns have been anticipated and mitigated.

⁶ Since the Panel is a committee of the Authority, Agency contact with the Panel will be through the Authority.

Submissions	<ul style="list-style-type: none"> ▪ Clear guidance to submitters including helpful reference points on how to identify and present ethical perspectives. 	Submitters <ul style="list-style-type: none"> ▪ Identify ethical issues in a constructive way, supported by clear information on the basis of these ethical issues, and any steps that might help to mitigate them.
Assessment	<ul style="list-style-type: none"> ▪ Agency staff well versed in relevant ethical concepts and principles and use these appropriately in making judgements about the need for further information. ▪ Ethical considerations comprehensively recognised in the process of identifying and assessing risks, costs and benefits. ▪ Transparent and consistent approaches applied in assessing and weighing up ethical considerations. ▪ Corporate manual items and technical guides for Agency staff prepared and used. 	Submitters and applicants <ul style="list-style-type: none"> ▪ Have confidence in the assessment process and participate constructively in interactions with Agency staff
Evaluation and decision	<ul style="list-style-type: none"> ▪ The Authority fully aware of the complete range of ethical considerations associated with an application. ▪ The Authority uses a transparent and consistent approach in weighing up all information including ethical considerations. 	
Communication of decision	<ul style="list-style-type: none"> ▪ Decisions communicated in a way that makes clear how ethical considerations have been dealt with. References in decisions to ethical issues framed in a way that builds stakeholder confidence that ethical considerations are given serious and appropriate recognition. 	Applicants and submitters <ul style="list-style-type: none"> ▪ Have a clear understanding of the basis on which decisions have been reached.

ERMA New Zealand is committed to observing the procedural standard of transparency and openness. However there may be occasions where complete transparency and openness of information relating to applications is not achievable. For example, the HSNO Act allows for some commercially sensitive information to be dealt with on a confidential basis. ERMA New Zealand is committed to providing sufficient information in its decisions to allow all stakeholders to understand how the decision was reached even when some of the information about an application is withheld for reasons of commercial sensitivity or other factors.

Wider application of the principles

This framework is relevant to all of ERMA New Zealand's activities, and is reflected in the practices and culture of the organisation.

The Authority will demonstrate its commitment to the framework by undertaking the following activities as appropriate and relevant:

- recognising ethical issues in the ERMA New Zealand Statement of Intent
- ensuring that ethical considerations are recognised in ERMA New Zealand's core values
- alerting new staff and new Authority and Ngā Kaihautū members to the ethical considerations inherent in ERMA New Zealand decision making through induction material and processes
- reinforcing ethical practices in training processes, including training that focuses on this ethical framework
- ensuring that ethical considerations are included in all relevant sections of the Agency's operating procedures, and
- including ethical considerations in project planning templates in ways that place ethical thinking in the forefront of the minds of the Agency staff.

As mentioned earlier, ERMA New Zealand is committed to the application of the framework through the on-going revision of application forms and guidance. In practical terms, application and decision making processes will be reviewed against this framework and adjusted where necessary. Other on-going practical steps include the dissemination of information about this framework through newsletters, the ERMA New Zealand website, and through both internal and external communication, education and training.

Monitoring and Review

The three aspects to monitoring and review are:

- monitoring of implementation of the framework in terms of specific actions
- monitoring the effects and results of applying the principles and standards
- monitoring the overall utility and usability of the framework

ERMA New Zealand will monitor the implementation of the framework through regular review of Evaluation and Review Reports and Decisions Documents, and review of guidance material.

The annual 'Monitoring of the Effectiveness of the Act' report is the appropriate venue for monitoring the effects of this framework. This requires ongoing identification, evaluation and review of key indicators.

ERMA New Zealand will monitor utility and usability of the framework through feedback from staff and external stakeholders.

ERMA New Zealand recognises the need to be alert to areas where implementation of the framework needs reinforcement or further guidance.

ERMA New Zealand commits to regular review of this framework. Initially the framework will be reviewed no later than three years after its formal adoption.

Appendix 1 – Ethical principles and procedural standards

Sources for descriptions: United Kingdom Nuffield Council, UNESCO Declaration, National Health and Medical Research Council (NHMRC) (Australia), Canadian TriCouncil Policy Statement on Ethical Conduct for Research Involving Humans, United States of America National Institutes of Health: Belmont Report.

General Principles

Given the HSNO Act's all encompassing definition of 'environment', there could be a view that there should be only one general principle, 'respect for the environment'. However, for pragmatic reasons it is more useful to separate that principle into two; 'respect for people' and 'respect for the environment'. This is consistent with the statement of the purpose of the Act.

Respect for the environment

Respect for the environment is often linked to sustainable development/management. Other significant aspects of respect for the environment include respect for species, and ecosystem integrity and biodiversity.

Activities should not be unnecessarily detrimental to the environment, any animal or plant populations, or any natural, historical or cultural site. Decisions and activities should have due regard for impact on all forms of life and their interconnection and the special responsibility of human beings for the protection of biodiversity and the biosphere within which human beings exist, as well as natural, historical or cultural sites.

The environment is a resource for humans (from food to aesthetic enjoyment), as well as other forms of life, and it is the right of humans, as well as a necessity, to use it. However, that use must be sustainable in that it protects, and maintains or enhances the resource.

Ecosystems may be viewed as a collection of interdependent components. Decisions need to consider the integrity of ecosystems, by taking account of the relationship between the components and to the whole. The form (type) and function (what it does) of the ecosystem under consideration must also be factored in. Over time ecosystems change and evolve both through internal interactions and in response to external stimuli. Consideration of the integrity of ecosystems therefore requires consideration of these dynamics.

The concept of 'intrinsic value' is the value ascribed to something over and above the benefit gained by putting it to some use. In this sense, the value is inherent. Intrinsic, or non-use value has relevance both for ecosystems and ecosystem components, and is an essential component of respect for the environment. Many natural and historic places also have intrinsic value.

Respect for the well-being of the environment means that it must not be unnecessarily harmed and actions which improve it should be favoured. Sentient beings, by virtue of their capacity to suffer, demand additional consideration. Organisms, communities and ecosystems should be seen as valuable in themselves, in addition to whatever benefits (or harms) they may represent. It is also important to respect the adaptive qualities of natural organisms and consider limiting human intervention in some circumstances.

Respect for people

Respect for people incorporates a range of ethical convictions including that individuals should be treated as autonomous agents, individuals are members of groups, and those (individuals and groups) with diminished autonomy are entitled to protection.

All individual human beings are presumed to be free and responsible persons. The central concern is respect for the individual as well as individual decision making. These ideas are related to a range of ethical concerns, including recognition of, and respect for, the inherent value of persons, recognition of the value of self-determination to the well-being, happiness and moral development of individuals, and respect, within our liberal democracy, for individual freedom, including freedom of choice.

There is also a cultural aspect to respect for people. Individuals are also members of groups of one sort or another and realise their values, in part, through their interactions with other members of those groups. Respect for people, then, includes respect for the groups with which members identify.

Respect for people must also include respect for those whose capacities for self-determination and the exercise of personal choice are compromised or absent.

Specific Principles

Concern for animal welfare

Research, testing and teaching organisations and their personnel are required by the New Zealand Animal Welfare Act 1999 to minimise any suffering of animals in their care and undergoing manipulations. Minimisation of suffering is inclusive of the notions of reducing the use of animals where possible, refining experiments to ensure least harm or damage, and replacing animal models by other models where possible.

Another issue is that of species integrity being compromised. Xenotransplantation, the direct insertion of animal tissues into humans, is an example of where species integrity is compromised⁷. Another example relates to the interference with species boundaries in the production of more nutritious foods, medicines and other products.

Concern for autonomy

Respect for people requires acknowledgement of autonomy and the protection of those with diminished autonomy.

⁷ For further information refer to the Bioethics Council document (see Bibliography).

An autonomous person is an individual capable of deliberation about personal goals and of acting under the direction of such deliberation. To respect autonomy is to give weight to autonomous persons' considered opinions and choices while refraining from obstructing their actions unless they are clearly detrimental to others. To show lack of respect for an autonomous agent is to repudiate that person's considered judgments, to deny an individual the freedom to act on those considered judgments, or to withhold information necessary to make a considered judgment when there are no compelling reasons to do so.

Concern for autonomy is therefore incompatible with paternalism.

Concern for co-operation (defined as including solidarity)

Any decision or activity should respect the human relationships between individuals and communities, ensuring equity and encouraging co-operation.

Concern for cultural identity/pluralism

Decisions and activities should respect the world view of all peoples or communities including their spiritual beliefs, traditions, cultural identity and forms of knowledge.

Concern for human rights

Decisions and activities should be made or carried out with full respect for human rights and fundamental freedoms.

Concern for human dignity

Decisions and activities should be made or carried out with full respect for the inherent dignity of the human person.

Concern for justice and equality

Decisions and activities should be made or carried out with full respect for the universal principle of justice.

For people, justice relates to the concepts of 'fairness in distribution' and 'what is deserved.' An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed without good reason. Another way of conceiving the principle of justice is that equals ought to be treated equally. This requires consideration of who is equal and who is unequal in relevant respects, and introduces a requirement to determine which considerations justify departure from equal distribution. Distinctions based on experience, age, deprivation, competence, merit and position may sometimes constitute criteria justifying differential treatment for certain purposes.

In terms of respect for the environment, judgements may need to be made as to whether one species is more valuable than another, or whether one ecosystem type should be given a higher weighting than another.

Concern for sustainability

Sustainability is linked to the concept of managing resources in a way that takes account of the needs of future generations. At a practical level, indicators of sustainability may include biodiversity measures (such as loss of species) complemented by considerations related to the long term viability of ecosystems and their constituent parts.

Concern for well-being/non-harm

Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. This concept covers acts of kindness or charity that go beyond strict obligation. Two complementary rules address this principle: (1) do not harm and (2) maximise possible benefits and minimise possible harms.

In the context of the environment, well-being/non-harm may go beyond the concept of absence of harm and require active intervention to ensure maintenance and enhancement of biodiversity, and species integrity. This principle also requires consideration of the intrinsic value of ecosystems.

Procedural Standards

The Procedural Standards have been adapted from the UNESCO document ‘The Universal Declaration on Bioethics and Human Rights’, where they comprise Articles 14 through 18.

Honesty and Integrity

Any decision or practice within the scope of HSNO decision making will:

- (i) be conducted with independence and intellectual honesty
- (ii) respect the need for integrity in scientific and other research
- (iii) avoid conflict of interest and duty or if this is not possible, manage it appropriately, and
- (iv) pay due regard to the need to share knowledge about such decisions and practices with the persons affected, the scientific community, relevant bodies and civil society.

Transparency and Openness

Any decision or practice within the scope of HSNO decision making will:

- (i) be made transparently and openly
- (ii) be determined with particular regard to the circumstances known to the persons concerned
- (iii) be subject to respect for privacy and confidentiality
- (iv) be available for appropriate scrutiny by the persons concerned and by civil society, and
- (v) be susceptible to informed debate, including in the media.

Sound Methodology

Any decision or practice within the scope of HSNO decision making will:

- (i) employ the best available information (including scientific and traditional knowledge)
- (ii) pay due regard to any different information on the subject reasonably available to the decision maker
- (iii) be considered rigorously and in a principled manner
- (iv) observe, when appropriate, proper procedures of risk assessment, and
- (v) be considered individually, allowing for the possibility of exceptions to general rules and practices.

Community and Expert Consultation

Any decision or practice within the scope of HSNO decision making will take into account the need to reconsider regularly the state of such knowledge and different opinions about it and the need to engage in a regular dialogue with:

- (i) persons affected by any such decision or practice
- (ii) members of relevant disciplines
- (iii) appropriate bodies, and
- (iv) civil society.

Fair Decision Making Process

Any decision or practice within the scope of HSNO decision making will, where differences arise, be resolved following full and free discussion in which the complexity of human and ecological systems and inter-relationships between them is acknowledged, and in accordance with fair procedures⁸.

⁸ Within the scope of the legal requirements.

Glossary

Authority (the Environmental Risk Management Authority) – the body that makes the decisions regarding applications for the approval of hazardous substances and new organisms in New Zealand.

Agency – the staff of ERMA New Zealand.

Bioethics – the ethics of medical and biological research.

Environmental ethics – the ethics of medical, biological and environmental intervention.

ERMA New Zealand – both the Agency and the Authority of the Environmental Risk Management Authority.

Ethics – for our purposes, ‘ethics’ and ‘morality’ are synonymous; in other contexts, ethics denotes moral philosophy.

Intrinsic value–the value ascribed to something over and above the benefit gained by putting it to some use (see ERMA New Zealand Protocol *Interpretations and Explanations of Key Concepts*).

Methodology – established as an Order-in-Council as required under Section 9 of the HSNO Act. It describes the formal decision making process that ERMA New Zealand follows in making decisions on applications for new organisms and hazardous substances.

Ngā Kaihautū Tikanga Taiao – the Authority’s advisory committee on Māori issues.

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