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**A fair play for the environment:
The management of the impacts of sport
on the environment**

A dissertation presented in partial fulfilment of the
requirements
for the degree
of Masters of Resource and Environmental Planning
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ABSTRACT

New Zealand's sporting organisations have not been placed under significant pressure in the past to effectively manage any negative environmental impacts that they may cause. However, the stakeholders of these organisations are beginning to exert pressure on them to change. In particular, the International Olympic Committee is placing an increased emphasis within its movement on environmental management. This research begins by analysing what sport's stakeholders may want in terms of change in the environmental management of sports.

This dissertation focuses on the environmental management tool called environmental management systems (EMS). EMS focuses on the organisation's management system in an attempt to make it more effective at detecting, monitoring and improving the organisation's environmental impacts. However EMS is a tool that has been developed within the commercial sector, where as sport is a voluntary, non-profit sector. The primary aim of this dissertation is to analysis the suitability of EMS for the New Zealand sporting sector.

All forty-one of New Zealand's sports national governing bodies affiliated to the Olympic movement are surveyed. In addition, four of the sports national governing bodies are interviewed in order to gain a deeper understanding of the motivation behind the decision making process.

Thirty-two responses were received from the national governing bodies. These responses, combined with the interviews, show that there is a low level of knowledge about environmental concepts. There is also a fairly negative attitude towards environmental management. The survey asked whether any of the organisations had considered implementing an assortment of concepts associated with EMS. Only one of the concepts (identifying their environmental responsibility) was likely to be incorporated into a majority of sporting organisations. However the interviews indicate that many see change as inevitable. It is argued however, that the sports organisations are better to be proactive in implementing an environmental management scheme. The thesis concludes with suggestions as to how New Zealand sports can implement a cost effective and appropriate EMS into their organisations.

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Chapter One

Introduction: Sport - its impacts and its influences

This chapter outlines the topic and objectives for the thesis and provides the basis for the following chapters to build on. The chapter starts by outlining the impacts that sport has on the environment and then outlines the structure of sports organisations and the influences that may impact on sporting organisations. These influences are organised into stakeholders that have the potential to effect the management of sporting organisations.

1.1 Introduction

This thesis will aim to connect together three elements that on the surface have little apparent connection. The first element is the environment, with its ecological, economic and social elements. Issues relating to the funding and organisational components of organised sport will then be considered. Finally, environmental management systems (EMS) will be explored. This tool is used by commercial organisations to incorporate the environmental effects of operations and production into business management.

The state of the environment concerns most people. There is often disagreement on its current state, how the environment is changing, and what should be done to maintain satisfactory environmental standards. But there is considerable agreement that something needs to be done in order to remedy, moderate or eliminate negative effects of human activities on the environment. What were once fringe concepts such as 'sustainable development' and 'environmental auditing' are becoming mainstream concepts underpinning environmental management.

Sport and business have always been linked, and these links are becoming stronger as more sporting codes become openly professional (Cashmore, 1996). One major visible effect of this link is sponsorship. Sponsorship is a two way process that provides the sport with much needed funds, while in return the company is provided with advertising opportunities and enhancement of its image (Cashmore, 1996; Copeland et al, 1996). The ability to do this stems from the dual role that the public provides. The public is both spectators for sport and the consumers of the sponsor's products and services. Sponsorship also provides a pathway between the two worlds of business and sport, along which techniques and theories can be swapped. Other vital links between sport and the environment are illustrated in Figure One.

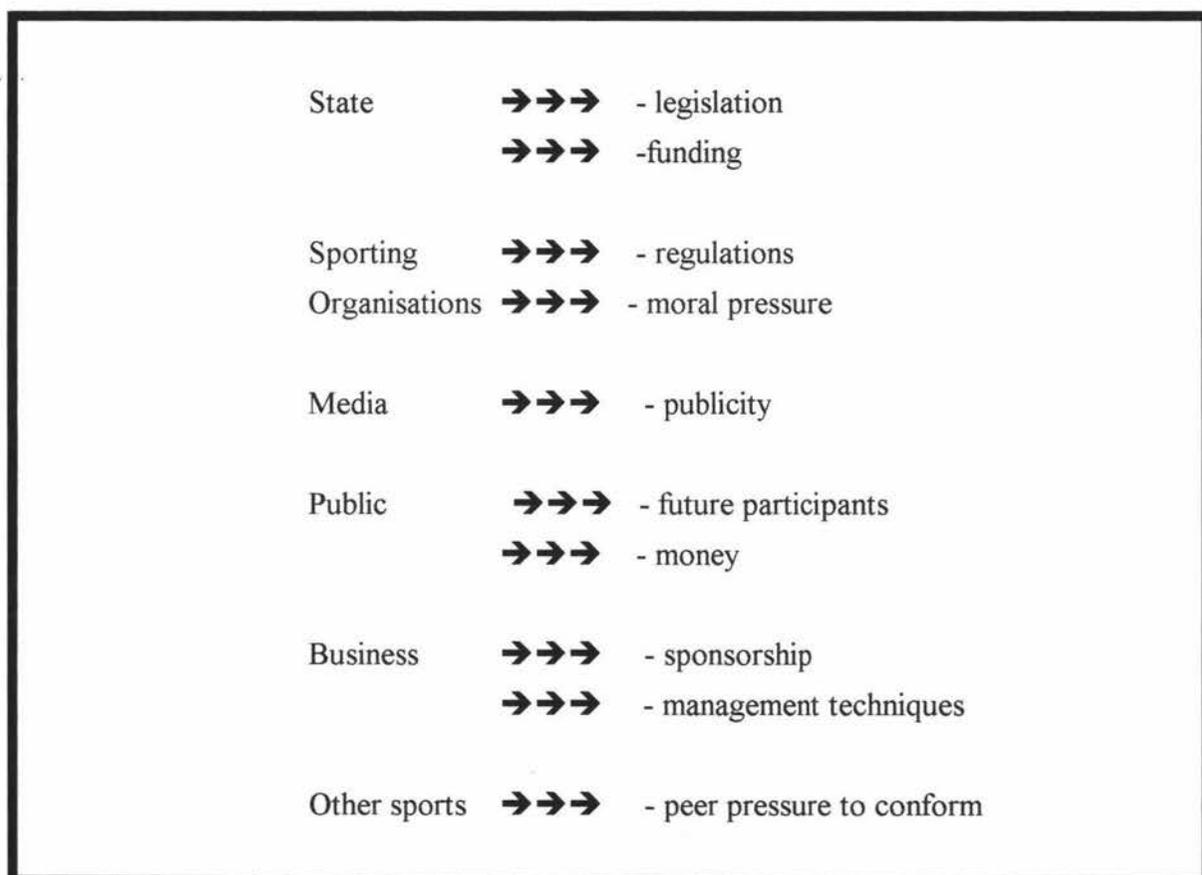


Figure One: Links between sporting organisations and the environment.

The links in Figure One are all examples of potential stakeholder pressure. The list on the left of the figure comprises examples of stakeholders (see 1.7) The list on the right gives

examples of the tools that the stakeholders can use to bring about change. These links include the media with its role as public informer, and the state who provides some funding for sport through funding bodies, grants or facilities and special tax status (as non-profit organisations). The state sets a legislative framework within which sports organisations operate. However, as an elected body, it can ill afford to have a funding deal turn sour if a sport develops a bad public image. The International Olympic Committee (IOC) has recently increased its focus on the environment (IOC, 1997). This is one of the major catalysts for this research. It has implemented two world conferences on sport and the environment, changed its charter to reflect an increased focus on the environment, and written a manual for sport and the environment (IOC, 1997).

As one of life's non-necessities, and as a participant in the competitive leisure market, sport can not afford the negative publicity that can arise from the exposure of an environmental incident or a bad environmental history. News stories such as the effect of water pollution on the swim leg of an international triathlon, or the negative social impacts of big competitions such as Olympic or Commonwealth games are enough to remove the 'feel good' element of a sponsorship. There are also suggestions that an element of bad management could put off any sponsors wary of a bad investment (Copeland et al, 1996). Finally, if the sporting organisation is in any way negligent, the organisation can be exposed to legal ramifications arising from the damage to the environment or the danger to the health and safety of participants (Williams, 1991).

Thus sporting organisations are beginning to ask themselves 'what are the effects of sport on the environment', and 'what is the magnitude of sporting impacts'? Consequently sporting organisations need a methodology which helps to determine these effects and impacts. One option is to implement an environmental management system. This management tool would enable individual sports to maintain their autonomy while self evaluating their organisations. However, EMS is primarily a business tool and there are issues arising from transferring the tool from a purely commercial or industrial setting, to a relatively small non-profit orientated sports organisation.

EMS is one of the more prominent methods being used to assist organisations in managing their environmental effects. Along with environmental auditing, it forms what Welford (1995) calls the traditional approach to corporate environmental management. An EMS should establish the structures and norms that an organisation needs to improve their environmental performance. In effect, it is a platform from which an environmental

improvement programme can be launched, and teamed up with other environmental management tools, it can enable an organisation be to totally environmental focused. EMS is not the complete answer though. On its own, it will not change an organisation's culture to a more environmentally conscious one. Nor will it guarantee that an organisation is an environmentally sound organisation, or even that it is improving. Instead the existence of an EMS simply states that the system (and knowledge) is in place to enable environmental improvement.

1.2 The impacts of sports on the environment

In this thesis, the environment is defined as being the surroundings within which an organisation operates. It includes air, water, land, natural resources, flora, fauna, humans and their interrelation. The environment extends from within an organisation to the global system (Sayre, 1996). This definition covers both the natural environment and the social one (such as a community of people). Tibor and Feldman (1996) restrict this definition by limiting the environment, in practice, to that area over which an organisation's activities have a significant environmental impact, and over which the organisation can then exercise reasonable control or influence. For the purpose of EMS this would appear to be a useful limitation.

An environmental impact is defined as being any adverse or beneficial change to the environment that is at least partially a result of an organisation's actions (Sadgrove, 1997; Sayre, 1996; Tibor and Feldman, 1996). Thus, any activity that is performed in a natural setting, or modifies a natural setting has an impact. In addition, any modification of a natural product has an impact. A list of potential environmental impacts arising out of the activities of sports is listed in Table One. Of equal importance is the social environment which comprises of humans and their interactions within the areas in which they live. Thus, the negative environmental impact of an activity can include effects on the social setting, such as when local residents are annoyed by excessive noise or lights from a stadium. While there is a tendency to think of these environmental impacts as negative occurrences, they can also be positive. For instance, a positive environmental impact occurs when a triathlon club clears the litter from a beach in preparation for a televised event.

	short term	long term
direct	noise pollution light pollution energy use water use compression of soil litter damage to flora and fauna	soil deterioration impact on local ecosystem modification of landscape
indirect	rubbish increase increase in administration materials used	extra roads and parking development around stadiums and event centres energy consumption in office use of non-renewable materials in equipment pollution caused by firms manufacturing sports equipment

Table One : Example of negative sporting impacts on the environment.

Olav Myrholt (1997) emphasises the natural link between sport and the environment (a constant theme of IOC publications in the area). Importantly, he points out that as well as being a “victim” of a damaged environment, sport can also be a “perpetrator” of damage because of its negative impacts on the natural and social environments. At the most basic level all sports are performed in some sort of environment (which can be a built one such as a stadium, or natural one such as a beach). The manufacturers of sporting goods can impact on the environment in the production process, such as releasing pollutants or the use of resources. Spectators can impact on the environment, for instance by littering (which Sadgrove [1997] defines as a type of pollution), by noise or by using vehicles to attend an event. For example the 1995 Swiss Alpine Marathon caused 3,513 people to travel a total of 2,560,000 kilometres to compete in or view the race (Swiss Olympic Association, 1997). While this presumably lead to revenue for the organisers, an analysis of the energy consumed

by the travel shows that it was in excess of the annual energy requirements of 264 Swiss households (Swiss Olympic Association, 1997).

1.3 The nature of environmental problems and sustainable development

The environment has a unique set of temporal and geographic scales which allows problems to cross geographical, political and generational boundaries. Environmental issues for an organisation can range from local ones (such as pollution of a stream) to global ones (global warming). In addition, the interrelatedness of the environmental system with the economic and social systems means that an impact from one single organisation can have effects on the environmental surroundings of individuals, local companies, trans-national organisations and nations (KPMG, 1998). This last point means that a management approach that focuses exclusively on just one system (environment, economic or social) can create some serious and unforeseen problems in the other two systems. For instance, the closure of an industrial plant that is spilling pollution into a river, is a positive occurrence for the environment, but the consequential unemployment can have serious social and economic repercussions for a region. Thus, an integral part of managing an organisation in a responsible way is to balance its impacts across the temporal and geographic scales, and across all three systems.

Another integral part of modern management is the concept of sustainable development (IOC, 1997; Welford, 1996; 1997). This is one of the most important environmental concepts currently in use. It is defined by the Bruntland Commission as being 'development that meets the needs of current generations without compromising the ability of future generations to meet theirs' (World Commission on Environment and Development, 1987). This definition is also accepted by the IOC (1997). However, the concept is presented with few strategies as to how individual organisations may contribute to sustainable growth.

The challenges posed by the environment can be split into those that place the sport at risk, and those that occur when the sport places the environment at risk. Rondinelli and Vastag (1996) also distinguish between endogenous and exogenous environmental risks. Endogenous environmental risks are those that stem from the internal operations of an organisation such as materials, technology, human resources and processes. They tend to be matters of choice. Exogenous risks are associated with the "external world". Things such as location, ecological characteristics of the physical environment, infrastructure, location demographics, public attitudes, and the political and legislative context within which it

operates. These tend to be beyond the control of individual organisations except where there are choices about the location of development.

We must learn to work within the constraints that the environment gives us (Kurt and Gleckman, 1998; World Commission on Health and Development, 1987). Even proposing to manage the environment is an oxymoron, as it is not the environment that is managed, rather it is humans and our activities that must be managed. Many authors in this area stress that the mind set of managers needs to change from one of modifying the environment to a system they can work in, such as by irrigating to increase output of a crop, to one of working within the environment, such as planting a more appropriate crop for the dry conditions (Kurt and Gleckman, 1998; Welford, 1996, 1997). In addition, there is a growing realisation that an aim of pure growth is not always the only, or even the best, option for an organisation (Caincross, 1995; Korten, 1995).

1.4 Definition of sport

Sport is an activity that is easy to recognise but hard to define. This is especially true when distinguishing sport from play or recreation. Houlihan accepts a definition of sport as:

“an institutionalised competitive activity that involves vigorous physical exertion or the use of relatively complex physical skills by individuals whose participation is motivated by a combination of intrinsic and extrinsic factors”. (Houlihan; 1994, p6).

Other definitions focus on the attainment of various standards of excellence, involving both self testing and competition, and demanding a demonstration of physical prowess, often in a structured contest and goal orientated manner (Landry, Landry and Yerles, 1991). Reference's to sport being a mirror of society and representing the hopes and perspective's of society are an important indication of the role sport might play in educating people about their impacts on the environment (Landry et al, 1991). In addition, sport is the largest voluntary movement in the world (Myrholt, 1997). This gives sport an enormous reach into society.

New Zealand has a multitude of national governing bodies with connections to sports. A very wide definition would include organisations such as the Maori Women's Welfare

League and the Scout Association of New Zealand (both of which are included in a list of New Zealand's national governing sports bodies accessible via New Zealand's Olympic Committee's website). To prevent the organisations under consideration having too many distinctions in terms of resources and profile, this research is limited to organisations affiliated to the Olympic movement, giving a total of forty one subjects.

1.5 The structure and organisation of sports

Within each country there will usually be a national governing body for each major sport (see Appendix One for a list of New Zealand's bodies). These national bodies normally organise some events, select national teams and apply the rules of the sport (International Olympic Committee, 1998b). To manage and coordinate the international competitions, the International Federations (IF's) create uniform rules. These IF's are non-governmental organisations who administrate their individual sport(s) at an international level and coordinate with the national organisations (International Olympic Committee, 1998a). The national organisations manage the sport within each country.

Parallel to these sporting associations are organisations who act as umbrella sporting organisations by gathering a selection of sports together. These umbrella organisations, which are outlined in Table Two, may focus solely on organising sporting competitions (as opposed to the sports themselves). However they may also promote a common set of values and deal with issues that they associate with their sport. Thus though the Olympic Committee organises the Olympic games, it also promotes a range of values and policies, such as peace and equality (IOC Charter, 1998).

Of these umbrella organisations, one of the most prominent is the International Olympic Committee (IOC). The IOC is the supreme authority of the Olympic Movement (IOC, 1998). Membership of the Olympic Movement is allocated to two groups. The first group is the nations that are Olympic member states. The second group of members is the International Federations that are affiliated. The member nation states are represented via their individual National Olympic Committee (NOC). These NOC's are organised into the Association of National Olympic Committees and also into several regional groupings of NOC's (such as the Pan American Sports Association). See Figure Two for an illustration of the structure of the sporting organisations.

<u>Global</u>	<u>National, regional, subregional, interregional</u>
<i>International Olympic Committee</i>	<i>Pan American Sports Association</i>
<i>Commonwealth Games Federation</i>	<i>Le Comite International des Jeux da la Francophonie</i>
<i>International Paralympic Committee</i>	<i>National Olympic committees</i>
<i>International Federation for University Sport.</i>	

Table Two: Sports Organisations. Adapted from Houlihan (1994, p57)

The IOC is organised into two organisations. The larger organisation is the Session (or general assembly) which consists of the IOC members who are representatives from the various nations. This body elects the nine person executive and the various commissions that undertake the day-to-day running of the Olympic Movement and Olympic Games. They also advise the board. One major problem created by this structure is the influence that nation states have over their NOC's, and thus the members that make up the Session. While the IOC retains the right to decide who the NOC representative will be, the reality is that maintaining the good will of the nation state is important. Also having an impact is the continuing dependence that many sports have on the financial resources of their central government (Houlihan, 1994).

Under the command of the IOC are the affiliated International Federations (IF's). Their statutes, practice and activities must conform with the Olympic charter. The IF's must contribute to the achievement of the goals set out in the Olympic Charter, especially Olympicism and Olympic education (International Olympic Committee, 1998). Yet each IF should in theory maintain their independence and autonomy when administrating its sport. However, of the over one hundred IF's that exist, few have command of enough resources to be an influence beyond their individual sports. An exception would be the resources created by the high profile (and membership) of the International Amateur Athletic Association (Houlihan, 1994). To create an influential body some International Federations have grouped themselves together in representative bodies. Examples are the General

Association of International Sports, the Association of Winter Sports Federations and the Association of Summer Olympic International Federations.



Figure Two: Structure of Olympic affiliated sports bodies. Adopted from Houlihan (1994, p 60)

1.6 The response of the International Olympic Committee

As mentioned in the introduction, one catalyst for this research is the response of the IOC to environmental issues. Since 1972, the IOC has been making symbolic gestures towards concerns over the state of the environment. In 1992 it urged its member countries to sign the earth pledge. In 1994 it entered into a partnership with the United Nations Environmental Programme. The 105th IOC Session (Atlantia, USA July 1996) approved the centennial Olympic Congress's recommendations about Olympic sport and the

environment. It has added to its requirements for bidding cities that the bids reflect environmental protection. In 1995 it organised the first biennial World Conference on Sport and the Environment and the Olympic charter has been modified to recognise the environment:

“The IOC ... sees to it that the Olympic Games are held in conditions which demonstrate a responsible concern for environmental issues and encourages the Olympic Movement to demonstrate a responsible concern for environmental issues, takes measures to reflect such concern in its activities and educates all those connected with the Olympic Movement as to the importance of sustainable development”. (IOC, 1998, Olympic Charter: Rule 13).

The IOC's manual (1997) stipulates a dual environmental focus for the Olympic movement and its affiliated organisations. One is a practical role, the other symbolic. The practical role is based around the incorporation of an environmental focus into the management of individual Olympic sports and the Olympic games. This research focuses solely on the management of the individual sports. However, the IOC's approach in managing the Games will have influence over the approaches individual sports within the Olympic movement adopt. The manual also states the IOC's intention to have the Olympic movement undertake a symbolic role that would utilise the high profile of the movement and help educate the public about pressures on our environment. Again, consideration of this role is beyond the ambit of this research.

The IOC's manual on sport and the environment (IOC, 1997) divides environmental impacts into those caused by people and those caused by the materials used in sport (such as buildings, transportation and equipment). According to the manual, potential impacts include: pollution, waste, damage to ecosystems, use of resources and energy, health and safety impacts, and excess noise or other disturbances. These last two impacts signal the IOC's concern with both the natural and the social environment. The IOC makes particular reference to the significant impacts a high concentration of people in a short time and in a limited place, such as at a sporting event, may have on the environment (IOC, 1997). The manual draws a distinction between short and long term impacts and whether those effects are directly or indirectly caused by the sports event (see Table Three). This distinction between direct and indirect impacts is also articulated by Sheldon (1997).

Short term impacts (impacts that are directly related to the event and for only a short time span, for instance noise and light pollution).

Long term impacts (impacts that continue after the event such as soil deterioration).

Direct impacts (impacts caused directly from the event - either by the people or the facilities).

Indirect impacts (impacts that are due to the event but are not directly related to the event, for instance extra roads to get to site or commerce built around stadiums).

Table Three: Different types of impacts. Adopted from IOC, 1997.

The IOC manual (IOC, 1997) also refers to principles of environmentally sound events management (see Table Four).

prevent pollution

reduce waste

use water, energy and other resources efficiently

manage the use of natural resources prudently

respect the fauna and its habitat

commemorate, protect and respect the world's natural, cultural, indigenous, and historical heritage

contribute to environmental education and training through sport

support local action and community participation

promote practices, methods and technologies that reduce negative impacts on the environment

Table Four: IOC's basic principles for environmentally sound management; IOC (1997).

However the manual remains very general when discussing methods of implementation. The IOC also prefers to allow each NOC and IF to interpret the manual in accordance with the individual cultural, political and legal situation of their individual nations. This stance is understandable given the range of cultures and nations the Olympic movement covers. It is also difficult to find any reference to what criteria IOC is preparing in order to check, measure and evaluate the efforts of IF's to improve their environmental management,

although there are guidelines for the monitoring of bids for Olympic Games host city status. However it raises the question as to whether the resulting lack of specific guidance and monitoring leaves a 'door' open for some individual IF's and NOC's to do nothing that specifically improves their environmental impacts.

The 1997 manual broadly refers to the implementation of an environmental management system. The manual notes EMS is especially relevant for event management. In addition it is a tool that the IOC perceives will assist the attitude change needed for individuals, such as spectators, competitors and administrators, and collective groups, such as the IF or the club, to become more orientated to sustainable development. Notably however, given its reference to social environmental impacts (see above), is the lack of methodology for understanding, accessing and solving social impacts.

Myrholt (1997) does perceive that there is an opportunity for consensus building between the different interest groups to pursue a sustainable development agenda, although it is recognised that the IOC is unable to do the work of government and that the relevant local legislation must be the minimum standard. Finally, there is acknowledgment of the need to integrate values, not just horizontally such as with other sporting groups, but also vertically, such as with manufactories of sporting equipment and accessories.

1.7 Influences on sports

Organisations and their managers do not change their attitudes and actions without reason. Change often needs a catalyst. Occasionally the catalyst will be an emergency or accident that prominently displays the need for changes to prevent future accidents. Thus the Exxon Valdez oil spill lead to the creation of the Coalition of Environmentally Responsible Economies (CERES) principles (Welford, 1996). However this sort of catalyst is rare and in reality is probably limited to industries with high risk factors such as large quantities of dangerous chemicals or the nuclear industry. A less dramatic, but more common catalyst is pressure from an organisation's stakeholders. This section will therefore focus mainly on stakeholder theory and the differing role stakeholders may play in changing the management of sporting organisations.

Stakeholder theory is now well established in corporate literature although there are still plenty of views over the influence a stakeholder has, or should have (KPMG, 1998; Sadgrove, 1997; Sheldon, 1997). A stakeholder is defined as a:

'... person or group of persons that have, or claim, ownership, rights, or interests in a corporation and its activities, past, present, or future. Such claimed rights or interests are the result of transactions with, or actions taken by, the corporation, and may be legal or moral, individual or collective.' (Clarkson, 1995, p106. Also cited in Azzone, Brophy, Noci, Welford and Young, 1997, p700).

Stakeholders for sporting organisations may include the state, non-governmental organisations, the media, the public, sponsors, other sporting organisations, employees, athletes, coaches and administrators in the sport (Azzone et al, 1997). These stakeholders influence the actions and intents of sporting organisations in various ways, but each have the opportunity to influence the way sport perceives its impacts on the environment and the amount that sport decides to modify its actions.

These stakeholders can exercise pressure on a sporting organisation in various ways. Often moral pressure will be brought to bear on an organisation that operates outside standards set by society. This may be direct pressure by protesting or not attending events, or it can be indirect by forcing funding agencies to cut sponsorship, or removal from a association. Likewise, some stakeholders have the ability to bring legal pressure on a sporting organisation. While the state's ability to pass laws and regulations is obviously relevant, so are the rules affixed to usage of a venue, the particulars of a sponsorship or employment contract, or the rules of membership of the Olympic movement.

There are three important aspects about stakeholder theory that have a direct relevance on how sporting organisations approach the management of environmental impacts (KPMG, 1998). Firstly, the attitude of many managers and traditional company law is that the relationship of an organisation to its shareholders is the dominant, if not sole relationship that should impact company direction. In other words, the interests of a company's shareholders are paramount. Thus it is seen as proper for a company to almost solely focus on profit and growth. Without shareholders, the equivalent in a sporting organisation might be the relationship between the sport and its athletes. This relationship can become the dominate factor, which may not allow for a balanced viewpoint when making decisions.

Secondly, at some point an organisation will have to prioritise its multiple stakeholders. This will be a difficult task, that to some extent will be situation dependent, and at other times may become an exercise in causing the least offence to the least number of people. Thirdly, some may consider the environment a stakeholder in its own right. This is a reflection of such environmental philosophy concepts as deep ecology. An organisation may have to accept that proponents of this view could place the environment's 'rights' above human ones (Welford, 1996). This could be a disconcerting position for any growth orientated organisation.

In summary, it is unlikely that one major catalyst will occur that causes sporting organisations to change the way they manage their environmental impacts. It is more likely a growing pressure from sports stakeholders will bring about changes. In order to better understand the likely make-up of these changes, this thesis will spend some time discussing what these stakeholders are and how they might influence the management of sporting organisations.

1.7.1 - The state

New Zealand is not exceptional in that the state plays a significant role in funding and promoting sport as well as creating the legislation within which any organisation must operate. In terms of funding to sports organisations, our primary body is the New Zealand Sports Foundation who from 1996 to 2001 expects to spend \$71,929,000 on sports grants (New Zealand Sports Foundation Five Year Plan, undated). These go to various programmes and high achieving individuals and teams. At least in the short term the large majority of the Sports Foundation's funding comes from the state, with contributions from corporate and private sponsors planned to increase over time. The Hillary Commission also contributes financially to national governing bodies, although it focuses on junior sport and participation goals (Hillary Commission, 1998). It also produces a series of booklets called 'running sport' which presents advice on the management of sports clubs (Hillary Commission, 1998).

The state can also have influence over a sporting organisation's involvement or non involvement when sport encroaches onto a political issue. The classic situation in New Zealand's recent past has been the issue of maintaining sporting ties with apartheid South Africa (Cashmore, 1996; Houlihan, 1994). While much of the world isolated themselves

completely from South Africa, New Zealand maintained sporting contacts into the 1960's and 1970's, most notably being the 1976 rugby tour of South Africa. This last tour contributed to twenty African Nations boycotting the 1976 Olympic Games in Montreal (Cashmore, 1996). The 1981 Springbok tour was also a defining moment in our recent history due to the social divide it caused. Cashmore (1996) points out that such is the interaction now between sports and politics, no Olympic games have passed without political influence since the 1936 "Nazi Olympics". It was however, particularly from New Zealand's point of view, the South Africa issue that demolished the belief that 'sport and politics should be kept separate'.

The most prominent role of the state is in enacting and enforcing legislation. Legislation will impact on many areas of the management of a sporting organisation; including the employment of staff, contracts with coaches, athletes, sponsors and venue owners, payment of taxation and methods of fund raising. It will also impact on the organisation's interaction with the environment. The most prominent piece of environmental legislation in New Zealand is the Resource Management Act 1991 (RMA). Prominent areas where the law has aspects that require compliance by sporting organisations are:

- When a consent is required to do something that is otherwise prohibited by a rule in a (proposed or actual) district or regional plan. See section 9 of the RMA. Examples may be building or modifying a building, polluting, excess noise or a large gathering of people for a public event.
- When an event would encroach onto the coastal marine area (Section 12 of the RMA) or a water body (section 14 of the RMA)
- When an event would encroach on an area that is an historical or archaeological site (Part II of the RMA).
- When an event would involve "unreasonable noise" (section 16 of the RMA)

In addition section 17 of the RMA places a general duty on "every person (to) avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person, whether or not the activity is in accordance with a rule in a plan . . .". The section does provide for an enforcement order or abatement notice to be served on an individual or organisation that either prohibits an action or requires specific

actions to be undertaken. Section 339(1) of the RMA stipulates that a breach of either of these notices (or of a rule in a plan) creates liability to penalties of imprisonment for up to two years or a fine of up to \$200 000 (plus \$10 000 per day of the offending behaviour).

The RMA does not stipulate that a particular environmental policy should be implemented. But it does encourage those who propose to undertake an activity covered by local or regional government plans, to become aware of the environmental impacts of their actions. It does this by focusing on the effects of activities, rather than focusing on the activities themselves. It has been frequently noted that this focus has been slower to change in practice, than in theory (Gow, 1995; Memon and Gleeson, 1995). However, the platform has been set for practitioners, decision makers and the courts to focus on effects, both potential and real. It has even been suggested that approaches such as an EMS may become the defacto standard of care that the courts look for, when reliance is placed on defences available in section 341 of the Resource Management Act (Gaines, 1996). In particular, the defence stated in section 341(2)(a)(ii) of having acted with 'reasonable conduct' can be proved with an effective EMS.

1.7.2 - International non-government organisations

International non-governmental organisations will generally have a headquarters in one country, but operate across national boundaries (Houlihan, 1994). They are distinguished from international government organisations (such as the North Atlantic Treaty Organisation, the European Community and the United Nations) by their lack of focus on issues of nationality. International non-governmental organisations will consider national interests to be secondary considerations or even impediments to the achievement of their primary objectives (Houlihan, 1994). See Table Two for a list of some organisations with a sporting focus. Other international non-governmental organisations may include environmental groups, labour organisations or human rights groups.

While international sporting organisations will naturally have an influence over sports, the IOC, the International Amateur Athletic Federation and the International Football Federation (FIFA) are organisations that have enough resources (such as finance, popular support and decision-making capacity) at their command so they can act with some confidence on the international stage and may even potentially affect the decisions of some governments (Houlihan, 1994).

1.7.2.1 - The Olympic movement

Membership of the Olympic movement requires an acceptance of the guiding and sometimes overwhelming authority of the IOC. The resulting effect of the IOC's charter (1998) is that the committee is a 'monarch-like' figure placed at the top of the sporting hierarchy. It is monarch-like in the sense that it both acts as a moral and public figurehead, and as a well advised body whose consent is needed for any legislation. The IOC is also monarch-like in that any change to its status requires its own consent, thus placing it in a position of paradox, by constantly having to protect its own interests while acting in the interests of others. It is probably helped though by the pressure that is brought on those risking their Olympic status by stakeholders, such as sponsors and states. This is due to the high profile and status of the Olympic games.

Any person or organisation belonging in any capacity whatsoever to the Olympic movement is bound by the provisions of the Olympic Charter and shall abide by the decisions of the IOC (IOC, 1998). The IOC may withdraw, with immediate effect, its recognition from IF's, NOC's and other associations and organisations (IOC, 1998). However, to accept the IOC's authority and the Olympic Movement is not necessarily to accept changes to the way you run the day to day activities of your sport (IOC, 1998). This leaves potential for overlap of control where the IOC's requirement to encourage the Olympic movement (via the IF's or national associations) allows it to override local standards affecting where an association buys its products or how it runs events. There are various ways that the IOC can influence a sporting body and they are listed in Table Five.

- | |
|---|
| <ul style="list-style-type: none"> * Sanctions/Legal influence (if the sporting body is an IF and/or wishes to compete in the Olympic Games or an IOC recognised effect) * Moral weight (as the mandate holder for Olympicism). * Education and Public support * Coercion (as the IOC should have enormous influence over publicity and in some areas, funding and support by other organisations and stakeholders) * Selection of where the Games are located (and can thus require certain conditions) |
|---|

Table Five: Methods the IOC can use to influence a sporting organisation.

1.7.2.2 - World Conference on sport and the environment

The world conference on sport and the environment was set up by the IOC to be a biennial event that brings together components of the Olympic movement with representatives of other stakeholders in this area (IOC, 1997). For instance, delegates include producers of sporting goods, media representatives and research institutes. The aim is to further knowledge and facilitate cooperation in the area. Two have been held so far, with the last conference being in Kuwait in 1997.

The Conference resolutions (1997) perceive nature and sport as being naturally linked. They also recognise social as well as environmental impacts. Conference recommendations include reference to horizontal and vertical integration of knowledge and responsibility, especially with manufactures. Further, there is a focus on information and communication being vital first steps for the sporting industry. The remaining issues relate to the weight these resolutions are being given in the sporting world (outside of academia), and how well the conference recommendations are being publicised and distributed to the national and local levels of sporting organisations.

1.7.3 - Media

The increase in media coverage of sport has been huge. An example given in Houlihan (1994) is the increase in Australia from approximately 250 hours of television coverage in 1966 to just under 1400 hours in 1986. On the BBC about 20% of its output is devoted to sport and in the United States about 15% of television coverage is given to sport (Houlihan, 1994). This presents significant opportunities for the sponsors, since a television audience is potentially much larger than the numbers that can attend the live match or competition. It is also significant that some sports are modifying their rules and style in order to be more appealing to the television audience. Perhaps the best well known example in New Zealand is the advent of one day cricket in the 1970's. The coloured uniforms, day-night matches and fielding restrictions to encourage high scoring rates, all aim to draw a large crowd, both at the stadium and on television. They also attract significant sponsorship, and it is often suggested that it is the one-day matches that pay for the five day test matches. Other sports that have changed their rules to speed up the game include golf (moved from medal play to stroke play), boxing (from fifteen to twelve rounds) and tennis (introduced tie-break) (Houlihan, 1994). These changes indicate an acceptance of the need to appeal to the

changing attitudes of the public, and a desire to chase the sponsorship dollar. Both of these motivations can be utilised by stakeholders wanting to bring changes to sporting organisations.

1.7.4 - Public

It is a maxim that sports need spectators. They need them to fill the grandstands, pay the entry fee and to buy the merchandising distributed by the sport and its sponsors. In fact the requirement to appeal to a large audience creates a vicious circle for sports. If a sport does not have a high profile, its potential audience (either at their competition or via television) is low. If the audience is expected to be low, or the competition is not on television, sponsorship is harder to get. Without sponsorship money, the sport can not be promoted, and if it is not promoted the public profile will not lift. Thus it is still not able to secure a large audience.

The public also has a role to play in bringing about change if there are shifts in society's norms. For example, if society expects public events to be run on an environmentally conscious platform, then sporting events will also have to be run on this platform. The ability of mass public pressure to bring about change is fundamental to any democracy. However it remains to be seen what influence the public will have in the specific area of sport's environmental impacts.

1.7.5 - Sponsors

It has been said that in modern sports, sponsors are as essential as spectators (Cashmore, 1996). The need for sponsorship is directly derived from the non-profit orientation of the average sporting organisation. The resulting characteristics which distinguish sporting organisations from commercial organisations may lead to differences in the way they are managed. These different characteristics stem from the fact that non profit organisations operate in a different context to profit-orientated organisations (Thibault et al, 1993). It is also suggested that in the absence of a profit orientation, non-profit organisations tend to focus on survival and as a consequence, they tend to lose sight of the need for a long term strategy (Thibault et al, 1993).

There are two main reasons for this focus on survival. Firstly, the limited monetary resources available tends to focus their activity towards the short term and the consequential need for more funds to carry on to the next activity. An indirect consequence of the reliance on outside agencies, such as government or sponsors, is that significant limits may be placed on the flexibility of management when making major decisions for their organisations (Thibault et al, 1994). Secondly, managers of non-profit organisations tend to get swamped in the day-to-day details of running their organisation (Thibault et al, 1994). There could be several reasons for this, including the voluntary nature of some staff positions, inadequate training, limited funds for extra services that assist management (such as technology). There is also the need to comply with a pre-established pattern of sports events (such as, local events, qualifying competitions, national events and overseas events), which limits the opportunities for innovation and strategic planning.

The non-profit orientation may not be entirely applicable to all sporting organisations as some may make a significant profit. However it is rare to find a sporting organisation that projects itself as having focus on profit rather than having success in competition or a high membership. Thus sport must manage the mix between being a non profit organisation, operating in a competitive environment and relying on business for some of its financial support. Some successful organisations will also have a merchandising aspects that positions them in the commercial marketplace.

These characteristics of the non-profit orientation of the average sporting organisation have implications for the successful implementation of environmental management systems for two reasons. Firstly, the basic need to obtain sponsorship mean that the desirability of environmental management systems must be evaluated, at least in part, by the hindrance or help it gives an organisation in obtaining that funding. This is particularly important in light of the extra cost an environmental management system can bring and the long term approach that it requires. Finally, to implement a good environmental management system requires an awareness of long term strategy and the process needed to achieve this.

The various authors quoted below have noted that sponsorship needs to be seen as an exchange, not a handout. It is a two way process that is (hopefully) based on mutual benefit. A business will not sponsor a sports event without considering any benefits that it may gain, and any risks it may be undertaking.

“The first sponsor of sport was probably a roman patrician currying favour with his emperor by underwriting a day of blood-letting at the Colosseum. ... Since he was seeking a return on his investments, he was being no more philanthropic than any of today’s commercial sponsors”. (Neil Wilson cited in Cashmore, 1996, p185).

“Sponsorship is the support of sports, sports event, sports organisation or competitor by an outside body or person for the mutual benefit of both parties”. (Denis Howell cited in Cashmore, 1996, p185).

“Sport sponsorships represent exchange relationships between sport organisers, corporations, and other intermediaries. Such relationships are based on principles of maximising rewards and minimising risks for all parties involved”. (Copeland et al, 1996, p32).

Clearly, any mismanagement of environmental impacts that results in adverse publicity will not be viewed favourably by sponsors. The issues surrounding sponsorships potentially indirect negative aspects have been well covered by earlier research which is summarised well by Cashmore (1996). These negative aspects include what Cashmore calls a lose of purity in the sports, sponsorship by products with no health benefits and clashes between individual sponsors and team sponsors. However, sponsorship can have positive indirect results. One of these could be the indirect overlaying of business standards of environmental management into sports.

Certainly the need to keep the sponsor happy is a real issue for any national sports associations. Copeland, et al, (1996) have investigated why companies sponsor sports, and why they discontinue individual sports sponsorship contracts. In contrast to the above quotations, they suggest that expecting something in return for sponsorship is a relatively new phenomena. In the 1960’s and 1970’s sports event sponsorship was an activity that was primarily motivated by philanthropic attitudes, but Copeland et al (1996) believe that sports sponsorship is now part of a wider corporate strategy for four major reasons:

- (a) Sports events provide a specific target audience that can be reached in a relatively cost effective and direct manner.
- (b) Associating the product with sports events provide a positive image for the product and company.
- (c) The excitement of the sports event and emotional attachment people feel towards a team or individual athlete may leave consumers more vulnerable to the marketing message.
- (d) Sports sponsorship is a very flexible medium allowing control over message and ample spin off opportunities such as merchandising and cross promotion spin offs (for instance corporate box functions may help companies to wine and dine other target groups).

The authors also note that sports sponsorship tends to be a short term activity, either because firms are new to the activity (almost half of the seventy-one companies that responded to Copeland et al's survey had been sponsoring sports events for less than ten years); or because they discontinue sponsorships on a regular basis. Only 14.1 per cent of respondents to Copeland et al's survey (1996) reported ongoing sponsorship deals lasting over five years. Discontinuation of sponsorship was found to occur for a number of reasons. The major reason offered was that the 'return on the sponsorship investment was inadequate'. Other relevant reasons given by Copeland et al's respondents are 'poor execution by the event organisers' and 'changing corporate priorities'. These last two reasons are important to sports organisations considering the implementation of an EMS. An effective EMS should improve the overall management of an organisation helping to improve its execution of sponsorship deals (see Chapter Two). The implementation of an environmental programme will allow the organisation to offer the (potential) sponsoring firm more 'social good' for their money. For instance, the sponsorship of an education programme allows the sporting organisation to educate the public on environmental issues, while promoting its sport. Thus the sponsoring firm has contributed to an environmental education programme and an advertisement for the sport involved.

In summary, while the scale in New Zealand may be smaller, there is no reason to think that the results would significantly differ from those of Copeland et al's study. Obviously competition in sports does not end on the sports field. Just obtaining the funds to compete is a battle for some organisations. Clearly having a good history of event management and a 'professional' approach to the management of the organisation may be influential to some level in gaining sponsorship. There is also the impact that other sponsorship opportunities

such as cultural events and festivals, environmental programmes, community programmes and other non sport organisations will have as they enter the sponsorship market place.

1.7.6 - Response of the sporting organisation's peers.

Often an organisation will be motivated to change its methods or attitudes because it fears being 'left behind' as other organisations adopt new methods or focuses. In effect, other organisations can set new benchmarks by raising the standards for environmental awareness that stakeholders expect from a sporting organisation. It should also be noted that the public may compare sporting organisations with other organisations, especially entertainment organisations. Thus if a majority of sporting (or entertainment) organisations organise a clean up of litter after an event, then the public expects all sporting organisations to clean up after an event. This has potential problems if there is an imbalance of resources between the organisations being compared, since what is affordable to some organisations may be well beyond small federations. The case studies in Figure Three (next page) illustrate the responses of the two IF's who presented papers at the World Conference on Sport and the Environment.

1.7.7 - Specific actors within the sport.

This sector of stakeholders includes coaches, sporting goods manufacturers, athletes, administrators, venue owners, commentators and influential past 'stars' of the sport (Houlihan, 1994). Many of these stakeholders will gain their influence from legal contracts. Some of the higher profile athlete or coaches may be able to bring pressure in more subtle ways. For instance the concept of 'players power' has recently developed (Houlihan, 1994), although it is significant that the power of the players is often tied to the commercial weight that they can command. Athlete associations are also common in some overseas countries, although they do not have a high profile in New Zealand. It remains to be seen as to whether any of these specific actors or associations can make a significant change to their sport. Pressure can also come from above or below these actors to make a change, for instance a team could require a manufacturer to have ISO 14001 certification before purchasing their goods.

Case studies

Federation Equestre Internationale (equestrian sports) Code of conduct towards the Environment (1997) - This is the only Olympic sport that uses an animal in competition. This reliance on the horse gives the IF a unique link to nature. The presented paper states the intent of placing the environment above technical requirements of events such as facilities and the cross country phases. It encourages the education of young riders on the environment. The paper takes a wide approach by placing importance on the need for both vertical (associated industries) and horizontal (across different horse associations) integration of the IF's environmental policy. However the paper also places an emphasis on the individual riders and stables practicing environmental sound management. The most obvious omission is the lack of reference to social impacts except for a reference to having good relations with other trail users, which means it ignores impacts such as the transport demands of moving horses.

International Cycling Union (Payne, 1997) - This IF is quick to acknowledge the ease of merely paying lip service to environmental issues with vague commitments to encouraging bikes as a form of transport. However the cycling IF has a catalyst in the form of mountain biking because of the questions over its environmental impact (mountain bikes often go off track and have received negative publicity in the past).

Christopher Payne outlined the many initiatives taken by cycling's IF. These include consultation with non government organisations over the impact of cycling. That consultation can lead to a conclusion that the impact is low, but that events need to be carefully managed to maintain that low impact. Consequently, guidelines were produced for event organisers that focused on the six key areas of noise, transport, waste, soil erosion, destruction of flora and disturbance of fauna. These guidelines recognised that competitors, their support teams and especially spectators are responsible for impacts, of which the indirect long term impacts, while not being the most visible, are the most serious. From these guidelines twelve recommendations were developed which correspond to the five different stages in a race event - preparation of a bid file, site selection, preparation of an event, running the event, and the event follow up. The hope is that these guidelines and accompanying recommendations and checklist will increase effective dialogue between the different stakeholders in cycling.

Figure Three: Responses of two IF's to the environmental challenge.

1.8 Conclusions

This chapter has defined the sporting organisation and illustrated that sporting organisations are multi-level in that they have international, national and local structures. It has also shown that sports, notwithstanding a natural link to the environment, can still have serious negative environmental impacts. These impacts are of growing concern to a number of stakeholders in sporting organisations. These stakeholders include the state, non-governmental organisations, the media, the public, sponsors, other sporting organisations and employees, athletes, coaches and administrators in the sport. This research proposes that these stakeholders may force sporting organisations to make changes in the way the approach the management of the environment. In particular this chapter focused on the initiatives undertaken by the IOC with its manual and World Conference on Sport and the Environment. The next chapter will focus on EMS as a method that will implement some of the changes requested by the stakeholders.

Chapter Two

Sports organisations and environmental management systems

This chapter outlines the concept of environmental management systems (EMS) and considers the transferability of this management tool from commercial organisations to sporting organisations. The chapter begins with a general outline of management systems and then moves onto the specific development of EMS. This provides background to the different forms an EMS can take. It then considers the changes that might be necessary if EMS is to be utilised by sporting organisations.

2.1 The avoidance of environmental impacts and the management of an organisation - the basic problem for managers

The management of any organisation has always involved problems of balance (Gilbert, et al, 1995). A classic example of this is the cost of production of a new product being balanced against the anticipated profits. While sport can avoid some purely commercial social costs and consequential balancing acts, in other areas sport managers combat the same dilemmas as commercial managers. One such area is that of environmental responsibility. For instance the social and economic costs of polluting are balanced against the cost of preventing pollution.

Piasecki (1995) believes that to develop a realistic environmental strategy, managers must use expert opinion, historical perspective, political opinion polls, sheer instinct, and basic intuition. This suggests that in reality the realm of influence on any organisation's

environmental policy is far reaching and crosses several disciplines. This is also a reflection of the nature of environmental problems as discussed in section 1.3. It also suggests that any manager dealing with the environmental impact area is liable to be swamped by information. This information is as likely to be subjective opinion as it is to be objective fact. One way of sorting out the relevant detail is to focus on the management system that delivers and interprets the information.

2.2 What is a management system?

The concept of EMS is based on improving the existing management system that the organisation already uses. The concept of a management system is drawn from systems theory. In the broadest sense a system has been defined as:

“a set of components that interact with each other. Changes in one component will induce changes in another component, which may in turn induce changes in a third component. Any one interaction of this kind is causal and directional”. (Clayton et al, 1996, p18-19).

Thus, within an organisation, the system will include such things as the lines of communication, the hierarchy of positions and (official) power and responsibilities people hold, and the rules and regulations that employees within the organisation work under. For simplicity the system is often portrayed as a flow of inputs, into a process, from which outputs are created (Sadgrove, 1997). An example for a sports organisation is shown in Figure Four. An EMS is simply a tool that focuses on the system within a specific area. The area being an organisation’s environmental impacts.

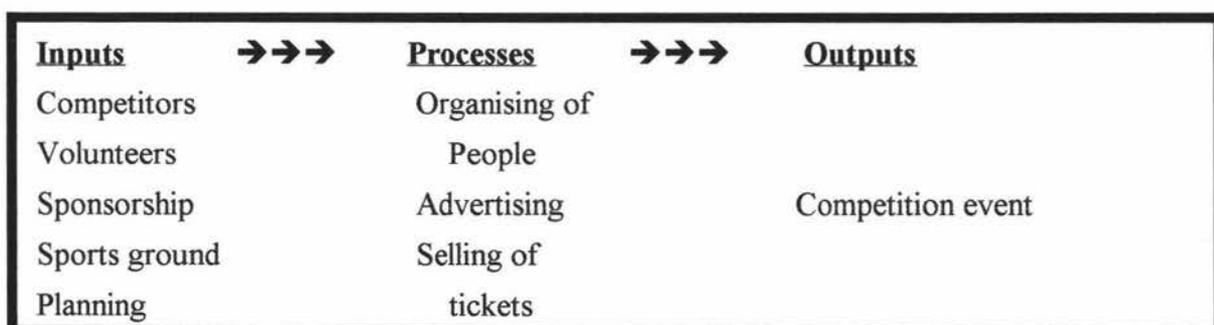


Figure Four: A basic system for a sporting organisation.

The focus that systems theory places on the relationships between the different components is often seen as its biggest asset. (Schoderbek et al, 1990; Morgan, 1986). In addition, systems theory stresses the interrelatedness of all the parts of the organisation, which means that every part must be strong for survival. It also means that a change in strategy may mean a change in every other part of the organisation as well (Morgan 1986). On the other hand systems theory is often accused of ignoring organisation culture (Morgan 1986). It also presumes that all of the parts aim to operate in harmony with each other, which is often far from the truth in real life. These positives and negatives are applicable to all methods that are drawn from systems theory, including EMS.

2.3 What is an environmental management system?

At the most generic level there is little debate over what environmental management systems are. All the following definitions emphasise that EMS's should have a structural focus. A need to develop norms and practices that allow for environmental improvement in the long term is also emphasised. In addition EMS's provide a method that enables organisations to demonstrate their commitment to solving environmental problems (Sunderland, 1996).

“That part of the overall management system which includes organisational structure, planning, activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy”. (ISO 14001. See also KPMG 1998, p 34).

“Environmental management system (EMS) is the organisational structure, responsibilities, practices, procedures, processes, and resources for implementing environmental management”. (BS 7750).

“Management systems stress the need to establish structures and norms which will ensure that environmental performance is improved over time”. (Welford, 1995, p50).

Thus EMS's should act as a 'before the fact' demonstration of an organisation's ability to protect its community, employees and stakeholders from environmental risk (Marguglio, 1991). As such, they have the potential to become a public relations tool, which is useful when seeking sponsorship and an increased public profile. A typical flow of steps in implementing such an EMS is illustrated in Figure Five.

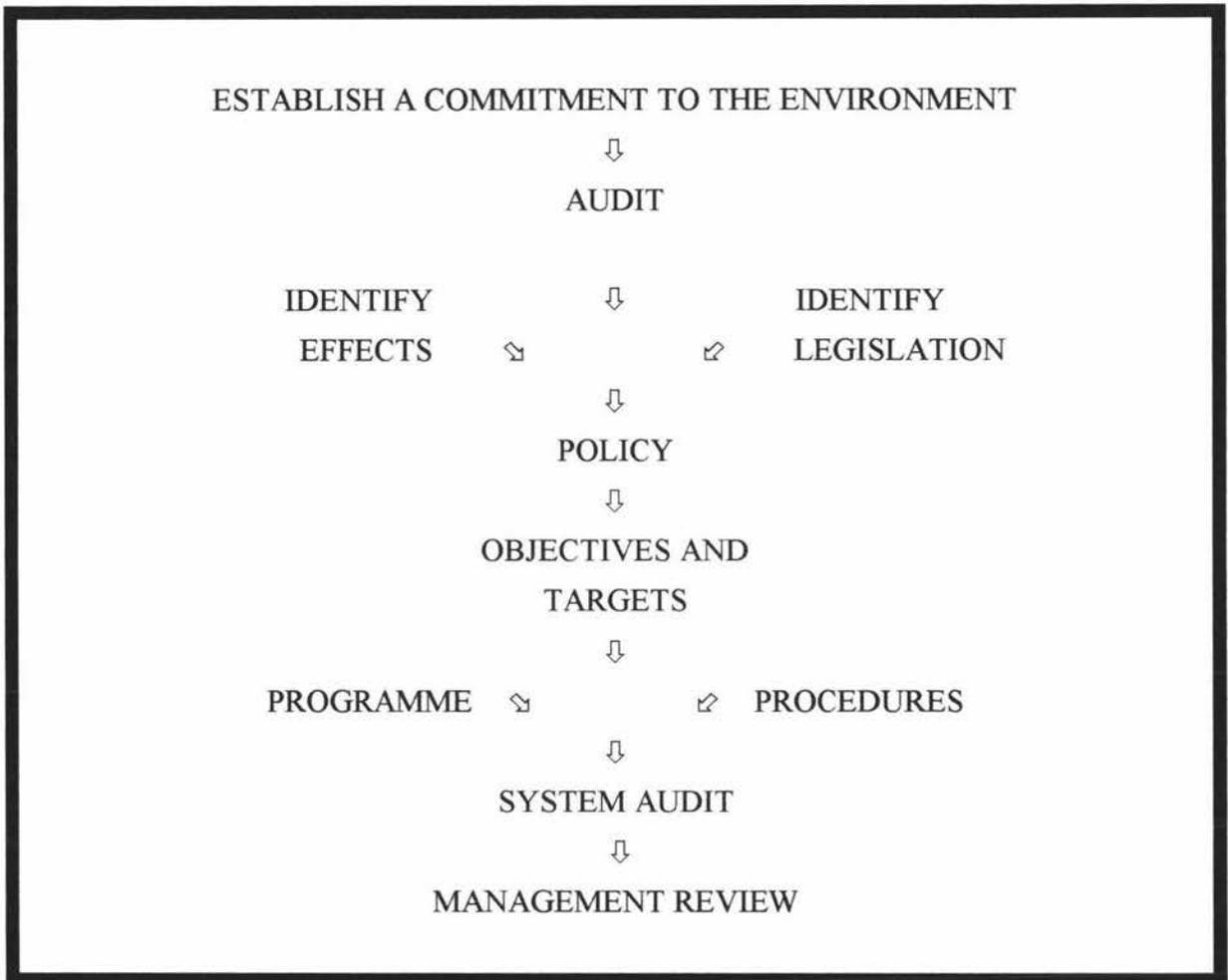


Figure Five: A basic EMS chart. Adopted from Sadgrove (1997)

Worley Consultants (1996) identify three key tasks of an EMS. The first task is to identify the environmental impacts of the organisation. It should decide which of those impacts are significant. Finally it should implement methods to manage and minimise those impacts in a way that brings benefits to both the environmental and business performance of the organisation.

An EMS is perhaps best thought of as having three stages. The initial stage is concerned with establishing the commitment to environmental management, an environmental audit and the identification of relevant legislation and the organisation's environmental effects. This first stage focuses on establishing what needs to be done. The second stage involves the planning and implementation of the steps that will ensure the organisation operates in a positive environmental way in its daily operations. These should include an environmental policy, a statement of the organisations objectives and targets, as well as the programme and procedures necessary to meet those objectives. This stage should be detailed in the environmental manual. The last stage is the review stage. This involves an audit of the system in which the environmental effects of the organisation are monitored and measured, and appropriate action taken. The review stage also includes a management review in which an evaluation of the EMS is taken to make sure that overall environmental performance is continuously improving.

Those who are familiar with Denning and Shewhart's quality cycle of plan, do, check and act may prefer to think of an EMS as being based around a cycle that is derived from it (KPMG, 1998; Sheldon, 1997; Welford, 1996). The 'planning' stage would consist of establishing a commitment, the audit, the identification of effects and legislation and establishing an environmental policy. The 'doing' stage consists of implementing an EMS and the development of the operational details. The 'checking' stage consists of the monitoring and measurement steps. The final 'acting' stage is the corrective action taken as a result of the checking stage.

2.4 Basic requirements for an effective EMS

There are some basic requirements for a effective EMS that authors such as Sadgrove (1997) and Welford (1996) have articulated. Firstly, they must be comprehensive. The EMS should have procedures that will control any organisational processes that impact on the environment. These procedures should be formal and written so that shortcuts and/or missed checks do not appear in the system. EMS will allocate roles and responsibilities so that people know who is responsible for what. Secondly, these procedures need to be understandable by everyone in the organisation. In the case of the sports organisations this will include volunteers as well as administrative staff. Finally, the procedure must include a commitment to continuous improvement. It will have formal measurements and audits so that the organisation is aware of whether its targets and objectives are being met. In addition

it will have a commitment to modifying those targets so that the organisation is consistently moving forward in its environmental management. In addition ISO 14001 outlines ten principles for organisations to consider when implementing an EMS (Sayre, 1996). These principles, which are contained in Appendix Two, are a mix of practical things that need to be done, and culture changes that need to be implemented.

The EMS is a situation dependent tool in that it improves what is already in place rather than creating from a clean slate. This is part of the reason why EMS's are a tool which allow the problems to be solved rather than a tool that solves the problem. While an EMS has the advantage of building on existing organisational platforms and modifying them to improve environmental performance, it has the disadvantage of maintaining any established 'flaws' in the organisation. This is especially true if one of the fundamental problems is an organisational culture that ignores environment impacts (Welford, 1997). EMS will do little to change an organisations culture if it is not matched with a top level commitment to improving the environmental culture. Consequently an organisation may reach its environmental aims, but a lack of insight into the total picture of the organisation's environmental impact mean that those aims are flawed. However the use of existing organisational structures, people and methods does mean that every member can see their place and role in the organisation (Welford, 1996).

2.5 The relationship of EMS to other environmental management tools

An organisation that has implemented an environmental management system may consider implementing other tools that will help it to cope with environmental impacts. KPMG (1998) provides an extensive list of environmental management tools that are illustrated in Table Six. These management tools are seen as only a sampling of a larger group of responses to environmental problems. These responses in their totality are labelled 'response mechanisms' and can include inter alia legislation, multilateral agreements, and regional initiatives (KPMG, 1998). The relationship of EMS to these other management tools is often one of EMS being the system around which these other tools can be slotted into if necessary. In other words, an EMS provides the framework which determines what other tools are needed, how the separate tools will interact with each other and importantly how they will interact with the non environmental management tools.

- Strategic planning
- Environmental policy
- Compliance monitoring programmes
- Assessments of environmental effects
- Toxic release inventory/pollution and toxic release inventory
- Environmental performance evaluation
- Environmental performance indicators and bench-marking
- Environmental audits
- Codes of practice
- Environmental accounting tools
- Cleaner production/waste minimisation/eco-efficiency
- Lifecycle analysis
- Product stewardship
- Environmental impact assessments/environmental statements
- Verification/third party assessment of environmental reports and/or EMS
- Mass balance/input-output inventory/ecobalance
- Process assessment techniques
- Environmental risk management
- Corporate environmental reporting
- Integrated management systems incorporating quality, environmental, health and safety
- Environmental Management Systems

Table Six: Different environmental management tools. Adapted from KPMG (1998).

2.6 Environmental management systems and linkages to the quality movement

A great deal of understanding of the basis behind ISO 14000 and other generic EMS standards can be gained from the extensive literature and experiences of implementing ISO 9000, which focuses on quality management systems (Sadgrove, 1997). At the base of the quality concept is the desire to improve products and services in order to satisfy the

customer (Logothetis, 1992). Thus one perception of EMS, is that it is merely a specialised form of quality management.

“The core principles of a quality system are the same whether the system is for the quality management of products and services or for the management of environmental quality. The differences arise in the nature of the entity, its specific requirements, and the scope of its applications....This means that in order to establish an [EMS], an organisation must identify the nature of its activities, products, processes, and services, as well as the environmental aspects and impacts of its activities.” (Puri 1996, p11).

As stated above, the total quality management (TQM) concept shares with EMS a focus on issues concerning problem solving, rather than directly solving the problem. Thus it concentrates on the management system in order to improve quality (Welford, 1996). It presumes that mistakes in quality are easier to solve before they leave the factory gate. Likewise one aim of EMS is to resolve potential environmental problems before they become public issues. This aim is a long term, management lead and customer focused approach. With this thinking the traditional TQM triangle would be in significant part transferable to the EMS concept (see Figure Six). As would the Denning/Shewhart cycle of plan, do, check and act (see paragraph 2.3. Also of specific note is total quality environmental management (TQEM) (Welford, 1995; Global Environment Management Initiative, 1993). This concept goes even further in trying to link the two theories but leads to a slightly different set of concepts than those being investigated in this thesis.

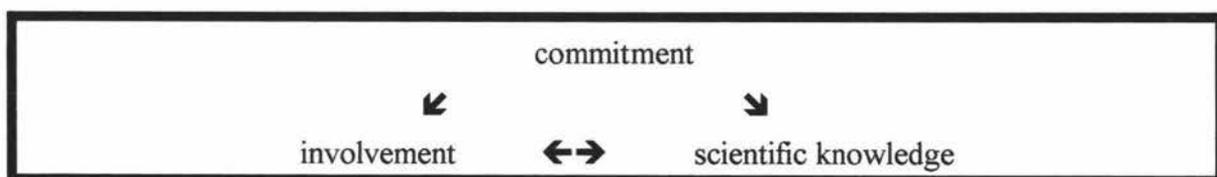


Figure Six: The TQM triangle. Adopted from Logothetis (1992 p4)

2.7 ISO 14000 series

One option that many organisations consider when implementing an EMS is the certifiable EMS offered by the ISO. The IOC manual (1997) refers to it as being an appropriate standard for industry connected with sport to be certified by. Its prominence in the area means that it has become the defacto standard for EMS (Tibor and Feldman, 1996). It is important to see it in the context from which it developed as this will help to illustrate why so much attention is on this option and to assist comprehension of the method of thinking required to implement a successful environmental management system.

The International Organisation for Standardisation was set up in Geneva in 1946 in order to create standardisation in products across national borders (Gleckman and Kurt, 1996). In the 1980's ISO made its first steps in the realms of 'soft' management via quality management systems and created the very successful ISO 9000 series (Gleckman et al, 1996). The ISO 14000 series is likewise a 'soft' management issue and it draws significantly on the techniques used in ISO 9000.

It is important to understand that the ISO 14000 series (and the BS 7750 standard and ISO 9000) are not standards in the sense that they aim to create standardisation across organisations. As Sayre puts it, ISO 14000:

"establishes no absolute requirements for environmental performance. It does, however, require compliance with applicable legislation and regulations, with a commitment to continual improvement. That means that there is no one set way to carry out activities." (Sayre, 1994, p6).

The ISO 14000 series is illustrated in Figure Four. This figure displays that there is more to being a good manager of your environmental impacts than just focusing on systems. However as sporting organisations are not producing a physical product, the right hand side of Figure Seven which refers to the evaluation of product development has little relevance (Sheldon, 1997). However the left hand side focuses on the very relevant and applicable concept of evaluating an organisation.

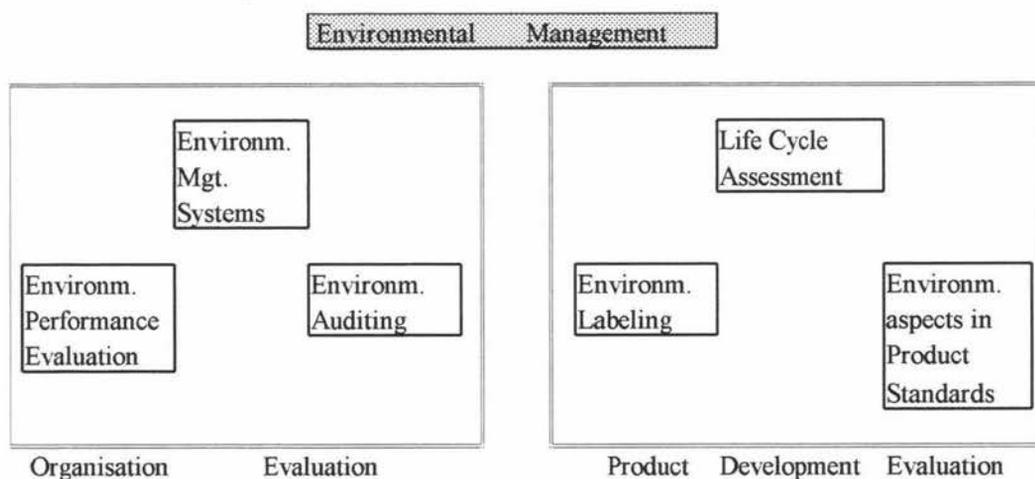


Figure Seven: The ISO 14000 series. Adopted from Nestel 1996 p19 and Tibor and Feldman 1996 p.5

2.8 Eco management and audit schemes

If ISO 14001 is a method of standardisation then the European Union's eco management and audit scheme (EMAS) is a standard of excellence (Krut et al, 1998). EMAS goes further than ISO 14001, particularly in some of the areas noted as crucial to why sports organisations might bring in an EMS (Sadgrove, 1997). For instance it includes increased importance on public access to environmental information and increased assurances to meeting environmental regulations and legislation requirements (Krut et al, 1998). However it is an European Union initiative and thus is not regulated or legally recognised in New Zealand. It is also applicable only to industry, and therefore certification under it will not be an option even for European sporting organisations.

However it is important to refer to EMAS because various authors see the EMS espoused by the ISO 14001 standards as a subset of the EMS system espoused by EMAS (Gleckman et al, 1996; Krut et al, 1998; Sadgrove, 1997). The most significant extra detail added by EMAS is the requirement for an annual public environmental statement (Sadgrove, 1997). This statement should be verified by an independent auditor. EMAS also requires an initial review of its environmental performance and the collation of effects and relevant legislation. In addition it requires consideration of the effects of an organisers suppliers and contractors. Proponents of EMAS place high importance on the perceived placement of information in the public domain as it is seen as crucial to having real improvement in an organisations

performance. For a sporting organisation that relies on public money (via state sponsorship) there may be merit in this concept.

2.9 Why should Sports Choose EMS?

The Swiss Olympic Association (1997) perceives there being five major benefits in implementing an EMS for sports events or for sporting organisations:

(a) - By conveying a better image of the sports event to participants, spectators, public, authorities and sponsors

This first statement raises several issues. Firstly is the point that if people feel their participation or support of an event is doing harm, then they are less likely to continue their support or start participating in that sport (Johnson, 1997). Thus as issues of environmental degradation become more prominent, the solutions (or lack of solutions) offered by the 'offenders', also become more prominent. See for example the International Cycling Unions response when the impact of mountain biking and its consequential bad publicity became a catalysts for change (Payne, 1997).

There is also the consideration that the EMS is a business designed approach, so the use of this method by a sporting organisation should be understood and appreciated by a business that is considering sponsorship of a sport. At its extreme a business may consider that sponsorship of a sport that has a positive and high environmental profile may create a synergy of publicity as it appeals to both sports watchers and the green consumer. This same point applies to the government who may favour approving grants for sports organisations that show a degree of 'professionalism' in their management style. The sporting organisation also gains publicity or avoids negative publicity if it is seen to be 'pro-green', and again this helps to gain sponsorship. This better image can also contribute towards a better relationship with the local communities (Sayre, 1996).

(b) - By providing significant information on consumption of resources

The EMS stresses monitoring and measuring. This helps an organisation to know where its resources are going and especially what is being wasted. This is perhaps more orientated

towards a manufacturing plant that releases pollutants into the environment or may waste natural resources via ineffective planning. However, within a sporting organisation it can still help by potentially saving time and money especially when doing such things as constructing facilities or running large events. It may also help in monitoring the use of resources in the administration office (such as paper).

(c) - By revealing possibilities to economise

In general a lot of opportunities to economise derive from any reduction in wastage. By focusing on minimising waste and decreasing energy use, an organisation can potentially save money (Sayre, 1996). Brookers (1998) cites several examples of companies that have had significant savings due to the implementation of an EMS.

(d) - By giving greater assurance that the legal demands are observed

Even non profit sporting organisations are not exempt from environmental law. In New Zealand this especially involves the Resource Management Act 1991 with its penalties of up to two years imprisonment or \$200 000 plus \$10 000 for every day the offence continues (section 339). Environmental management systems promote compliance in three ways. Firstly the implementation of an EMS can help to complete an understanding of the requirements for legal compliance (Brookers, 1998). Secondly, the EMS makes any necessary modifications to an organisations operations to assure compliance and limit liabilities (Sayre, 1996).

The third role of EMS is relevant if any litigation arises due to an environmental accident. The existence of an active EMS may help to convince the court that the organisation has meet the appropriate standard of care. This standard of care has still not been totally clarified in New Zealand but the courts have used "that the incident was reasonably foreseeable" to determine the level of blame and subsequent fine (Brookers, 1998). Part of the role of an EMS is to help an organisation see its potential and actual impacts on the environment. The courts have also used "due diligence" as the standard (Augustowicz v Machinery Movers Ltd (1992) 2 NZRMA 209).

(e) - By contributing to a better organisation

This very generic point can be interpreted a number of ways. One is a moralistic view that an organisation that limits its negative impacts on the environment is a 'better' organisation. The second is that the environmental management system encourages an organisation to look at its structures, rules and roles. Therefore the search to improve environmental performance may lead to observations of areas where changes could be made to improve in other areas such as financial savings, training or communication (Tibor and Feldman, 1996). This could lead to a more efficient sporting organisation that saves itself money (Bookers, 1998). Finally there is the point that a self imposed and self designed method of controlling an organisations environmental impacts has a better chance of succeeding than a system imposed via a third party (Johnson, 1997). This is an important point if New Zealand's sporting organisations are waiting for their IF's or some other stakeholders to make environmental management mandatory for them.

2.10 How advanced are sports organisations in the area of environmental management?

There are a multitude of theories in the literature that attempt to provide a ranked classification list into which an organisation can be slotted depending on its environmental attitude and status. Welford (1996) provides a summary of many of these positions and they are further summarised in Table Six. These classifications would appear to place sports organisations somewhere in either level four or five. In other words they range somewhere between being indifferent to the issues, to being aware and thinking about it, but not really taking any positive action on the issues. This indifference could feasibly be explained by sports being a low risk industry with very limited resources to enact any positive actions. The release of the IOC's manual on sport and the environment suggest that there is a growing awareness of the issues and that the 'right words' are being spoken. The implementation of an EMS in coordination with some other environmental tools such as environmental reports may place a sporting organisation up to level eight or nine.

<i>No</i>	<i>Name</i>	<i>Description</i>
1	Ostrich	Organisations that view the environmental challenge as a fad to be weathered
2	Resistant	Organisations that fight environmental legislation and regulation
3	Why me	Organisations whose actions are sparked by a negative catalyst (such as a published environmental risk or disaster)
4	Indifference	Organisations with low environmental risks, low benefits to reap and/or resource constraints
5	Thinkers	Organisations that wait for others to lead
6	Offensive	Organisations having high returns from an environmental policy
7	Defensive	Organisations with high environmental risks compliance
8	Anticipatory	Organisations that move beyond compliance
9	Environmental excellence	Organisations where there is environmental reform and clean technology
10	Leading edge	Organisations that have a high environmental risk <u>and</u> high environmental returns

Table Seven: Levels of environmental attitude and status. Based on Welford (1996, p22).

2.11 What organisational factors in a sporting organisation are relevant to EMS implementation?

The national sporting organisations are clearly low polluters (although the same might not be true for other components in the sports industry such as manufacturers). It is less clear whether they operate in a proactive or reactive mode. It appears that for the majority of the time they are reactive. This explains Christopher Payne's (1997) comments on the negative publicity effects of mountain biking and its perceived damaging impact on the trails the riders use. However some sporting organisations may have become proactive. A sport that has a high impact on the social environment might be use to the need to minimise effects, educate people and compensate for the damage. Examples may be those sports that occur in residential areas and thus create a lot of noise pollution, create traffic congestion or the closing off of public space. Mountain biking (see Figure Three) is also an example of a sport that has become proactive.

It has been suggested that the effectiveness of an EMS can be limited by the structure of the existing management system and other organisational factors (Welford, 1996; Johnson, 1997). There are two main reasons for that. Firstly, poor planning in the implementation stage can lead to a 'poor fitting' EMS. There is also an issue with the difficulty that any organisation has in changing, the effects of which are well documented in most management textbooks (see for example Gilbert et al, 1995). It is however, important not to attempt to change aspects of an organisation that are already working well; especially if the EMS can be adopted to fit those aspects (Johnson, 1997). Finally there are situations when even the best planning will not allow some obstacles to be skipped. The specific organisational factors that can place obstacles in front of implementing an effective EMS are outlined in Table Seven.

<i>Organisational Factor:</i>	<i>Example in a sports organisation</i>
Limited Resources:	Organisation is non-profit, and surviving on grants and sponsorship
<i>Lack of resource commitment:</i>	<i>The budget allocates no funds for implementing and/or monitoring an EMS and/or no staff member is delegated authority to implement an EMS</i>
Management practices:	The usual management practice is for little delegation and low communication to its staff
<i>Perception EMS will add to paper work:</i>	<i>Organisation is already overloaded with forms to fill in such as applying for funding, health and safety, and taxation forms</i>
Past failures:	A previous attempt to have an environmental policy was expensive and lead to no changes in practice
<i>Internal politics:</i>	<i>The implementation depends on the association voting on it, but there is conflicting demands on the allocated budget</i>
External politics:	A manufacturer of sporting equipment does not want the sporting association to insist on equipment that meets environmental criteria
<i>Co-ordination problems:</i>	<i>While the administration office has made the necessary changes, the local offices are not sure what is to be done</i>
Personality issues:	The EMS is associated with just one person, and attitudes towards that person affect attitudes towards EMS
<i>Cynicism:</i>	<i>The organisation perceives EMS as a method that has developed out of a academic think tank, that has no real application to the 'real world'</i>
Lack of top level commitment:	The chief executive does not actively support the EMS programme

Table Eight: Organisational factors in a sporting organisation that may hinder the effective adoption of an EMS. Adopted from Welford (1996) and Johnson (1997).

2.12 What areas of EMS are applicable to what areas of sports?

There is nothing that specifically prohibits national sports organisations from implementing a standardised environmental management system. Both the British Standard 7750 and ISO 14001 specifically state that they are for organisations of all kinds and the generic word 'organisation' is used throughout (Sayre, 1996). The ISO 14000 series specifically states that the series is for any company, firm, enterprise, institution or association, or part thereof, whether incorporated or not, public or private, that has its own functions and administration (Sayre, 1996). Likewise by their very nature individualised EMS's are applicable to any organisation that wishes to set one up. However the costs associated with standardised systems would suggest that implementing an EMS of this sort would be an overkill for a small non-profit sports organisations. This is especially so given the low risk factors associated with sport.

EMS by its very terminology focuses on the management system, thus it will work best in the areas of sport that are (or can become) formalised as rational/legalistic approaches. The rational legal approach is one which is dominated by rules. It tends to have inflexible job ambits and a strict hierarchy style of authority (Morgan, 1986; Gilbert et al, 1995). Examples of these areas in sporting organisations are (IOC, 1997):

- location and landscaping
- sports facilities (planning, location and operational)
- sports equipment industry
- transport
- energy
- accommodation and catering
- water management and sanitation
- waste management.

The emphasis is on avoiding the big accident and removing ignorance. EMS may be less appropriate in those areas that are more individualistic, such as anything that relies on an individual's attitudes, values and behaviour or an organisation culture (rather than the rules). This could be a limiting factor for the use of EMS in sports as their main 'product' is an individual's sporting excellence, rather than a mass produced product, which is what EMS was designed for. For instance informal publicity, organisational creativity and behaviour of individual sports people are not effectively controlled by rules. It is also harder to affect

anyone who is outside of the “loop”. Thus recreational sports people, non affiliated competitions and competitors may be missed.

2.13 Implementing EMS into sports organisations

One of the issues that national sports organisations must consider when reviewing their environmental policy options is who will be the intended audience of the environmental literature. Often in this area, the literature is directed towards a commercial audience. Therefore a national sporting organisation must be aware of the distinctions and similarities between the two types of organisation. None the less, it is appropriate to stress the consideration of the appropriate policy and to repeat Rondinelli and Vastag’s (1996) warnings about the errors of:

- underestimating or overestimating the costs and constraints created by legal and market demands for environmental management or
- underestimating or overestimating the opportunities offered by the growing worldwide concern for environmental protection.

In the sporting organisation’s case that could lead to presuming an environmental management plan will cost too much or underestimating how much it will cost in time and money to get a resource consent under the RMA. Alternatively it may mean that the IF has underestimated the marketing advantages in being perceived as environmental sound (particularly with the links between sport and nature). It may be that those who ‘care’ about the environment share a common make up with those involved in an IF’s sport, as such things as disposable income, education, community values and family characteristics may determine involvement/interest in both.

One publication that does direct itself primarily to sports organisations is the Swiss Olympic Association (1997). This group has developed a flow diagram for implementing an ISO 14000 based EMS. The diagram is repeated in Figure Eight. Throughout the circle, an emphasis on continual improvement exists.

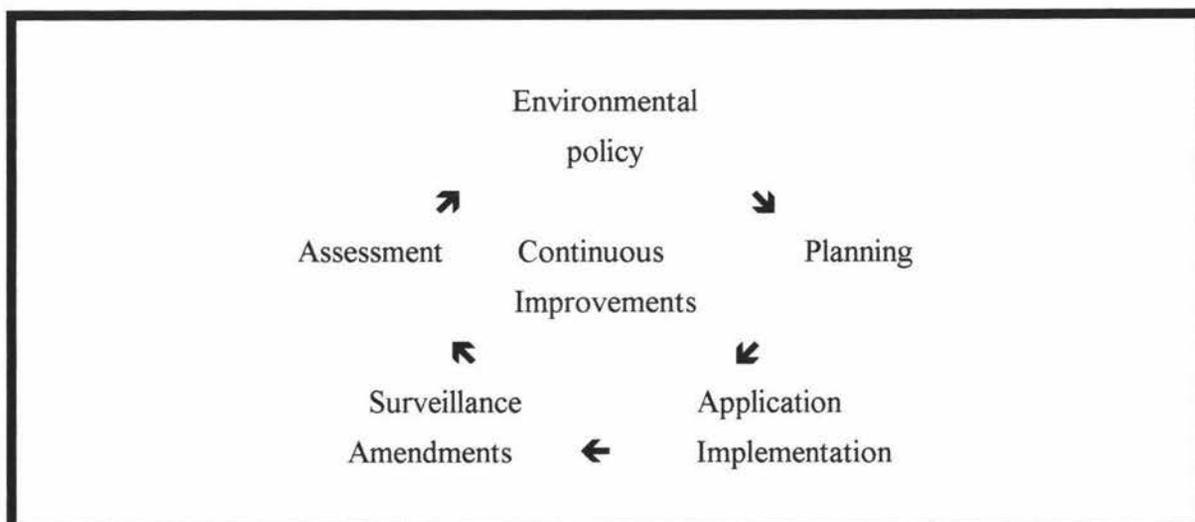


Figure Eight: Implementing an ISO 14000 based EMS. Based on the Swiss Olympic Association 1997.

2.14 Critique of environmental management systems in sporting organisations

Regardless of the positives outlined above for environmental management systems, it is not a foregone conclusion that it is an asset to every organisation. There are several significant problems that are associated with EMS. These potential problems can be divided into those that derive out of a critique of the EMS concept itself and those that derive from the suitability or otherwise of the organisation itself for an EMS. Some of these potential problems have been covered in Table Six. Bookers (1998) gives an applicable suggestion that some organisations will not find any great advantage in having a formalised EMS, particularly to certification standard, as their environmental effects may be minimal and the formal EMS may be somewhat of an overkill rather than representing management efficiency.

Sporting organisations fall into these categories of low risk and small enterprises therefore it is important to investigate the need for an EMS. It is also important to investigate the merits or otherwise of generic EMS systems such as the ISO 14000 certification level. It may be that an sporting organisation will only need some parts of an EMS to reap significant benefits.

2.14.1 - Environmental Management Systems focus on conformance not performance and environmental impacts

A organisation that has implemented an environmental management system has not necessarily demonstrated that it has a good environmental performance (Gleckman et al, 1996; Sheldon, 1997; Sunderland, 1996). Indeed it is possible for an organisation to bring in an EMS and not decrease a single area of pollution. This is one of the major criticisms of EMS. See Bookers (1998), Welford (1996), Sunderland (1996) and Gleckman and Kurt (1996).

Although external environmental auditing and environmental reporting are extra techniques that a organisation may choose to use, standards such as ISO 14000 judge an organisation by its measured conformance to a set of internally set levels and outcomes. This is similar criticism to that leveled against other management system certification programmes, such as the ISO 9001 quality certification. That certification only recognises that the organisation can monitor and recognise quality problems. It does not guarantee a quality product. Thus a company that makes lead balloons can be certified to ISO 9001 quality standard, while a organisation that make biological warheads can be certified to ISO 14001 environmental standard (Krut et al, 1998).

“ISO 14001 is a specific standard for conformance, not performance, and environmental aspects, not environmental impacts... In a speech at MIT, Joe Cascio said that he does not care ‘how much’ waste an ISO-certified firm dumps into the river. What is important is that the company’s EMS knows that it has happened” (Gleckman et al, 1996, p120).

This criticism of EMS arises because of the focus on systems rather than areas such as performance and cultural change. The EMS approach can be seen as a minimalist approach. It can also be perceived as being a method motivated by (and focused on) legal compliance and avoidance of embarrassment and costs rather than improvement. Some authors, such as Welford (1996), Sunderland (1996) and Gleckman et al (1996) are rethinking the adoption of this system focused approach. In essence the critique amounts to a challenge to the blinkered approach of the method. By focusing on the system rather than its outcomes it is possible to have a situation where the system changes for the better but the impact on the environment remains unchanged. To a degree the incorporation of effective monitoring

programmes counters this. However public disclosure of the results of the monitoring is not an automatic outcome of implementing an environmental management system. Although note that an EMAS system will require some public disclosure (see Section 2.8). It is also why the ISO 14000 series uses the term 'environmental aspects' rather than environmental impact (Gleckman et al, 1996). The use of this term removes the focus on measurable improvements.

On the other hand, it is possible to argue that in the case of sports organisations, the mere fact the importance of the environment is being recognised is a significant signal to the sports members and supporters. The low level of environmental knowledge in the national governing bodies that is discussed in chapter four, suggests that any tool that increases that knowledge and understanding of the issues, may have an effect on individual's attitudes about the environment.

2.14.2 - EMS's have the potential to be a legal liability

Environmental management systems have the potential to back fire on organisations. For instance Gairns (1996) suggests that there is a potential for the ISO 14000 series to evolve into a benchmark for determining the legal content of the "reasonableness" of a producer's environmental management system. Thus if it becomes common place to use an EMS it may become the standard for showing that reasonable care was taken to avoid negative environmental impacts. There is also the risk of negative publicity if the EMS implemented is not up to standard:

"(T)ry explaining to your shareholders and customers that you have lost your accredited EMS standard as a result of a successful prosecution. An EMS may become a 'liability' if the organization has not taken on board all of the legal issues necessary to cover itself against exposure to non-compliance." (Vivien et al, 1997, p32).

Added to this legal back-firing could be the potential for an increase in negative publicity if the organisation does not match its environment policy statements. If however environmental management systems become the legal quasi-standard for taking reasonable steps to avoid negative environmental impacts, then surely the best way to show you match

that standard is via implementation. An question remains as to whether the standard will become as high for a non profit voluntary organisation as it is for a corporate body.

2.14.3 - Cost

The added cost of implementing an environmental management system with its extra paperwork, reporting, manuals and policy statements can be prohibitive to any organisation (Sunderland, 1996). This cost can be expressed in either financial cost or labour time. Obviously this cost, as a proportion to overall costs, will be greater in a non profit organisation that is at least partially staffed by voluntary labour. The avenues for recouping the costs are also more limited in an organisation of this type, as the extra cost can not be added to the consumed product. Cost is also a significant factor if an external audit is required, although in the case of non-profit sports organisations, it may be that some form of deal can be done, such as a collective audit, or a sponsorship deal.

2.14.4 - EMS does not incorporate ideas from the non-commercial world

The concept of EMS in itself does not assist the implementation of any international conventions such as Agenda 21. Nor does it require the co-operation of environmental NGO's or state governments to become the business environmental standard (Gleckman et al, 1996). While the voluntary nature of environmental management system standards are seen as a positive, it means that there is no organised guidance coming from the state or environmental NGO's. While this may change over time as more governments use them and more research is undertaken, in the meantime a risk is run of EMS becoming the market place standard without drawing upon the current wealth of knowledge and theories in the non market place environment. This may mean that it can not change over time to keep pace with current thinking, or it may not even have an accurate basis behind it to begin with. This could be true both at the level of the entire thinking behind the concept of EMS's and at the level of the individual policies and targets set by organisations from which they gauge improvements in the monitoring and measurement results.

Likewise without state involvement, environmental management systems may fail to match the state's policy objectives, although reaching the legislation requirements is often part of implementing an EMS. If a state's policies are ignored, future legislation changes to reflect

the new policy may mean that an organisation's environmental management system runs the risk of becoming obsolete. This would mean that the initial cost associated with start up and implementation may be at least partially wasted.

This point is especially important for sports organisation because much of the secondary benefits behind sport are based on non-commercial benefits - what many would call social benefits. Sports organisations, especially the umbrella sports organisations like to be perceived as promoting social values such as equality, appreciation of diversity and peace. For instance the Olympic movement promotes ideals associated with peace, human rights and anti-discrimination (IOC Charter, 1998). If the sports organisations already have a high involvement with NGO's, they may counter this criticism to a certain point.

2.14.5 - Disclosure is discretionary under an environmental management systems

While monitoring and measuring environmental impacts are normally thought of as part of the environmental management system; the reporting of the results is not necessarily part of the procedure, although EMAS is trying to answer this. Therefore the public may gain no more information than it already has on the environmental impacts of an organisation. While monitoring solely for internal evaluation may have the advantage of getting organisations to be more 'honest' in their monitoring, it does not allow the public to judge the results and use their mass consumer power to bring about improvements. Of course non-disclosure in itself may bring a negative perception by the public.

2.14.6 - Implementation of an environmental management system does not in itself guarantee continual improvement

While most formalised environmental management systems (such as ISO 14001 and BS 7750) require a commitment to continual improvement, some do not. Even those that do, may focus on improvement of the system rather than improvement in the actual performance (Sunderland, 1996). Thus while the system may improve its ability to monitor and measure environmental impacts, there is no requirement for those impacts to show improvement. The hope is that the accurate illustration of the negative impacts, potentially combined with negative publicity, will cause organisations to improve there impacts. It may also allow an

organisation to be forewarned of any potential environmental catastrophe that may cost the organisation both financially, legally and in negative publicity.

2.14.7 - Environmental management system provide an easy option to organisations that are not committed to environmental improvement

Some authors suggest that standards such as the ISO 14000 series will allow organisations to gain a relatively easy environmental 'A' grade. For example Gleckman et al (1996) suggest that it will stop organisations and industries creating their own individual environmental programmes that better reflect their own needs and their specific environmental impacts and risks. The ease of implementing programmes such as ISO 14000, may stop organisations researching and questioning what is the appropriate relationship between the organisation or industry and the environment. In the case of sporting organisations however, it is anticipated that for cost reasons, they will design their own form of EMS, thereby curtailing much of this criticism.

2.15 Conclusions

EMS is a management tool that focuses on the structure of an organisation and helps to develop norms and procedures that allow for environmental improvement. It does not solve an organisations environmental problems, rather it sets the framework for identifying these issues, and effectively resolving them. While EMS is often criticised, especially for its focus on conformance, rather than performance, it has several potential advantages for sporting organisations. These advantages include making the organisation more efficient and improving the image of the organisation, especially amongst its commercial sponsors.

Chapter Three

Methodology

This chapter outlines the methodology used in the following part of the thesis, which considers New Zealand practice. It outlines the methods used to collect the data (literature review, questionnaires and semi structured interviews), and describes the reasoning behind the selection of these methods. It then proceeds to outline the methods used to analysis the data resulting from the surveys.

3.1 Introduction

The methodology will need to provide information about the current attitudes and knowledge of New Zealand's sporting organisations in regard to two main issues. Firstly, it is important to determine the extent to which sporting organisations are aware of the IOC's efforts to educate its members and the public about concerns over the environment. Secondly, further information is needed to ascertain the extent of knowledge in sporting organisations about EMS and other concepts and their applicability as tools for managing the environmental effects of sporting activities. It is also hoped to ascertain whether implementation of EMS is a relevant option for sporting organisations to adopt in considering environmental issues.

A questionnaire has been selected for the primary research in order to gain as accurate as possible illustration of attitudes and knowledge of the organisation. To complement the questionnaire will be a smaller sample of the organisations, who will undertake a semi-structured interview to provide more in-depth analysis. The primary research will be supported by a literature research.

3.2 Literature review

The principle literature review provides information about the theory and practice of using an environmental management system. The results of this part of the literature review are the basis upon which chapter two builds. It also defines the matters to be considered in transferring the concept of EMS to the management of sports. To a lesser extent the literature review is used to define sports and to ascertain their possible environmental impacts. It also provides the basis of what sporting organisations have done up to this point to modify or reduce their environmental effects. For instance, the published reports/case studies of organisations (sporting and non-sporting) that are contained in Chapter One are used to provide benchmarks against which sporting organisations can measure themselves.

3.3 Population sample

Given that this research focuses on sporting organisations, and that the Olympic movement is actively promoting environmentally-based changes to sports management, the survey is based around the forty-one national governing bodies that are members of the New Zealand Olympic Association. Given this small number of organisations, it is important to survey the entire sample. However semi-structured interviews will be limited to four, due to time and resource restraints. The selection of these four is non-random in order to try and select organisations that should, on paper, be the most advanced in dealing with the environmental challenge. The selection is assisted by the advice of a representative of the New Zealand Olympic Academy. For instance, factors such as the number of members, profile and Olympic participation are considered. This was the basis upon which athletics was selected. The potential effects of that sport on the environment are considered, thus rowing and equestrian, who have a significant interaction with the environment, have been selected. In addition cycling and equestrian have been selected to determine whether recommendations by their international bodies that are contained in chapter one have filtered down to the national level (see Payne, 1997; Federation Equestre Internationale, 1997).

3.4 Rational for selecting a questionnaire

There are several reasons for selecting a questionnaire as the main mode of data collection. Firstly, it is necessary to cover as wide a population of the sporting organisations in New Zealand as possible in order to provide an over all picture of the preparedness, attitude and resources of the national governing bodies to implement an EMS as defined in chapter two. It fulfils this overall criterion by allowing easy comparability across organisations. This is due to the highly quantitative nature of the data. In other words, the data gained will tend to be of a category nature rather than descriptive (or qualitative).

In addition, a questionnaire provides a relatively economical way of gaining answers to the questions. Finally, a questionnaire provides an effective and standardised method of data collection. It allows for the data to be easily displayed and should remove almost all of the bias that can come through in an interviewing situation. It also allows for confidentiality to the respondents. Given that many in society hold strong opinions about environmental protection, care will need to be taken to avoid the respondents answering the questions in a way that inflates their organisation's actions and attitudes to ones that are more socially and environmentally aware than the reality.

3.5 Rationale for incorporating four semi-structured interviews

It is felt that the criticisms leveled towards the superficiality of a questionnaire by May (1997) are relevant (see section 3.8). Consequently some form of probing as to the reasons behind the attitudes and actions of sporting organisations was deemed necessary. A semi-structured interview was thought to offer an opportunity to allow some of the questionnaire subjects to be given a chance to expand upon their answers, and thus assist the research gain an understanding of the reasoning behind actions and attitudes.

The style of interview will by necessity have to be reasonably structured. This is in order to maintain some control over the data collected and to avoid leaving the participants with negative feelings about the interview. It will however have some parts that are unstructured, retaining only a focus. This allows for a more accurate illustration of knowledge and attitudes of the respondent to emerge. It is hoped that the semi-structured style will provide enough structure to allow for comparability, but maintain enough flexibility to allow the research to absorb some understanding of the

thought-processes of the decision-makers in this area. On the negative side this might allow some subjectivity from the researcher to be imposed on the results.

3.6 Design of the questionnaire

There are three traditional styles of questionnaires available to a researcher (May, 1997). The first is a self completion survey, where the subject fills out a written survey themselves. This is the option discussed in this section. The second is via the telephone, where the answers are recorded. The final option is a face-to-face interview and this option is covered in section 3.7. All however follow a similar pattern of design (see Figure Nine).

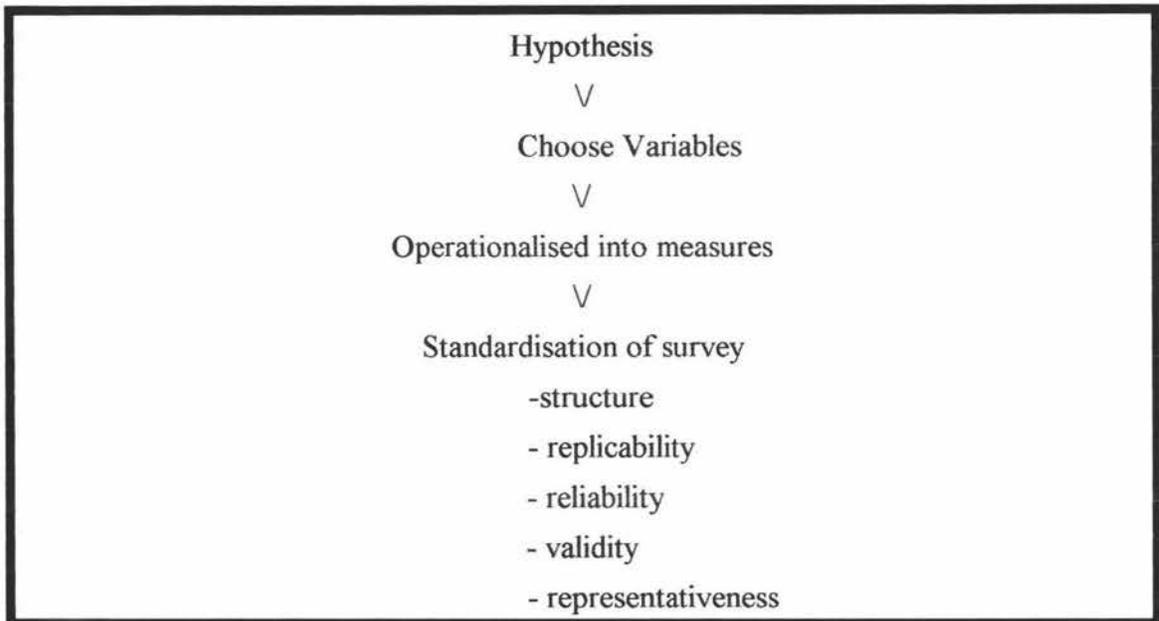


Figure Nine: Survey design. Adopted from May (1997).

The hypothesis is the question the researcher is trying to answer with the survey. It is deduced from the theory established by the literature review. The variables are any attribute or characteristic that can vary. A survey attempts to work out which variables are more probable in a certain situation, and thus which variables need to be present or absent for the hypothesis to be true. The relevant variables for this survey are resources available, knowledge of, and commitment levels to the concepts behind EMS. For a survey those variables need to be operationalised into questions in order for them to be measured by the survey population. In the final stage the survey is checked to make sure

it is standardised. Features of a standardised survey include that the interview is structured so that the same questions are being asked in each interview or questionnaire; that the survey can be replicated; and that the population sampled is representative of the relevant population as a whole.

According to May (1997) there are three conditions that must be fulfilled in successful interviews; and these conditions would be transferable to successful questionnaires. They are accessibility, cognition and motivation. Accessibility is referring to whether the person answering the questions has access to the information required. A situation without accessibility may occur is in situations when the relevant events are historical (and thus forgotten), the answer contains sensitive information that the interviewee finds themselves unable to disclose, the interviewee refuses to answer or the interviewee does not understand what the question was asking (May, 1997). To that list could perhaps be added in a commercial situation, that the person being interviewed is not the person with access to that information, or the person being interviewed is not authorised to answer those questions. Cognition is referring to whether the interviewee understands what is being asked of them. This not only refers to understanding the question, but also understanding their role in the situation. This will help the interviewee feel more comfortable with the concept of being interviewed. Motivation is whether the interviewee feels like co-operating with the interviewer.

In this study, a mixed format is used for the questionnaire. An open style of questioning is preferred in the initial section to account for the multiple of definitions used in the area of environmental management. Then closed questions narrow down the specifics of any environmental policies that the organisation has. A closed question limits the answers to a number of options, from which the interviewee has to choose their response. An open question allows the interviewee freedom to answer the question as they choose (May 1997). Foddy (1993) lists the advantages and disadvantages of both. Importantly open questions allow the respondent to express themselves in their own words, and help to avoid leading questions that may cause misinformation as to the respondents level of information. However, open questions can be very hard to codify. Closed question make sure that the respondents answer the same questions allowing a more meaningful comparison. They also test recognition rather than recall which may be important in such a wide ranging area such as environmental impacts and environmental management systems.

There appears to be debate over whether the layout is better to focus on keeping the interviewees perception of the size of the survey down, or whether spaces, at the

expense of extra volume are better, as they lead to ease in completing the survey. Hoinville et al (1978) suggests that the idea that interviewees are put off by excess length is a fallacy, especially if the population being surveyed have a high standard of literacy. Hoinville et al (1978) does however, suggest having a large amount of space between questions to ease comprehension. See Appendix Three for a copy of the questionnaire used in this research.

3.7 Design of the interview

An interview is defined by Shipley et al (1996) as a serious conversation with a specific purpose. The interview can be structured, semi-structured, unstructured or a mix of styles (Breakwell, 1990; May, 1997). A structured interview is based on a questionnaire style interview, where the interviewer asks pre-worded questions, following a set pattern. This is perhaps the most common type of interview and is the one associated with doorstep or telephone interviews. It gives highly quantitative and objective data and is presumed to allow comparability between responses. However it would add little to the understanding of the decision making process in national governing bodies.

An unstructured interview (or focus interview) is one that has a topic, but where the respondent is allowed to freely range within that topic. It is a style well suited to a situation when qualitative information is preferred over quantitative, but of course is not repetitive, nor objective. A typical example where this style would be appropriate would be the recording of an oral history.

In the middle is the semi structured interview. This was the option chosen for this research. The base questions are normally pre-planned, and thus offer a formal structure upon which the interview is based. Beyond that however the interviewer is allowed to freely probe in order to better meet the objectives. Thus it is suited to a situation when the researcher wants a better understanding of the motivations behind the subjects attitudes or actions. In effect it is a mix of the above two styles.

“Questions are normally specified, but the interviewer is more free to probe beyond the answers in a manner which would appear prejudicial to the aims of standarization and comparability. ... Qualitative information about the topic can be recorded by the interviewer who can seek both clarification and elaboration on the answers given”. May (1997, emphasis May’s own).

A semi-structured interview consists of primary and secondary questions (Shipley and McNulty Wood, 1996). A primary question is the initial question that requests information. The secondary question is the unstructured follow up question that is designed to clarify or gain additional information on one or more points in the answer to the primary question. In addition many of the comments from the design of questionnaire section are also relevant.

3.8 Criticisms and solutions

Questionnaires, while relatively simple and cheap, do have some disadvantages. The first one is that they tend to be very superficial. The very mode of delivery that makes them so effective and cheap is also the feature that means they can only ask for a minimum answer. This may not lead to an understanding of the process that the participant undertook to come to their answer (May, 1997). This should be remedied if the survey is viewed only as the first step in researching and understanding. A postal survey has the additional disadvantages that it requires motivation on the part of the subject to complete it, and that there is no guidance available to assist the respondents in interpreting questions (Hoinville et al, 1978). In this research, a follow up letter and copy of the survey were sent out to those who had not replied after a few weeks. This was to encourage a higher return.

There is also an issue when the attitudes displayed in the survey are not borne out in actions. In effect the survey may offer positive theoretical results that are not reflective of reality (de Vaus, 1991). This risk is partly minimised by good survey design. Thus the survey for this thesis is based around a mix of 'attitude' and 'fact' questions to gain an understanding of both the attitudes of the respondents and whether they have the resources to back up that understanding.

Two further issues that can arise when answering survey questions are based on aspects of human nature that lead to imperfect memories and sensitivity to some topics (Hoinville, et al, 1978). Problems of memory are simply that people tend to be unable to retrieve details of their life or business that are insignificant to them at their time of occurrence. Problems of sensitivity arise when answering questions requiring information that the respondents are embarrassed about answering. Thus topics that touch on very personal details, or when the respondent knows their answer differs from societies norms are often poorly answered. An example in the environmental area might be the amount of

litter associated with an event, or known pollution. Also there is an issue when surveying businesses with questions that they perceive should not be answered in the public domain.

There are also some minor points. Firstly, in a similarity with interviews, surveys have the ability to ask leading questions. While the risk of this occurring in the written form seems to be less commented on in the literature, clearly poor drafting could lead to this occurring. In addition surveys measure a state of affairs at a fixed time. Longitudinal surveys which measures changes in a panel over time are very rare and expensive in terms of both commitment and money. This problem further adds to the accusation of simplification.

There is always a tension between subjectivity and objectivity in interviews (May, 1997). It is easy for the bias of the researcher to come through, in the questions asked and when the answers are summarised (Shiple et al, 1996). It is also possible for the interviewee to mislead the interviewer as to their real knowledge or ability, especially if they have a persuasive style of speaking. Therefore care will be taken to frame the questions asked in an objective style.

In order to deal with these issues the following actions will be taken. As mentioned, the four semi-structured interviews will be held in order to help balance the superficial nature of the questionnaires. In addition, there is the option of following up some survey answers with a telephone call to clarify and understand the reasoning. It is also hoped the structured side of the semi-structured interview will aid this aim of objectiveness. Several telephone numbers will be provided to encourage the respondents make contact with the researcher over any concerns they had. In a one off survey, little can be done about the problems of selected memory, sensitivity or reality not matching the questionnaire answers. A follow up survey in several years would see if any action had been taken.

The interviewer must also bear in mind the inconvenience to the respondents, but especially when being granted an interview. They are more consuming of resources such as time, than a self completing questionnaire would be. Thus the additional benefits gained via the face-to-face style must outweigh the costs to the parties involved. Therefore the interviewer must be careful to stay on topic and approach the interview in a professional way.

3.9 Processing of questionnaire and data analysis

The responses to the questionnaire were entered onto a database. The interviews were transcribed into a written form. These transcripts, along with comments added to the written questionnaire, were referred to when analysing the data in order to provide some explanation for the results gained. The data was analysed using various statistic tools. It was used to create a picture of where New Zealand's sporting organisations are in terms of their management of environment impacts. Thus the results are analysed to determine three major things. Firstly, what environmental tools have been implemented by the sporting organisations. Secondly, what are the options available for implementing a complete EMS in the sporting organisations and finally, whether sporting organisations thought there is a need for these tools to be implemented in their organisation.

Chapter Four

Results and Analysis

This chapter summarises the results of the questionnaire and semi-structured interviews outlined in chapter three. The chapter begins with a summary of the organisations surveyed and then discusses the stakeholders and influences that the organisations are affected by. It also considers the organisation's views of the impacts of their sport and discusses whether the sporting organisations have the structural elements that form the basic elements of an environmental management system. The chapter brings together observations and ideas that stem from the completed questionnaires and semi-structured interviews. The chapter draws extensively on the analysis of the results gained from the data collected through the questionnaires. It also relies on less scientific observations and impressions gained from the interviews and comments added to the questionnaires. Finally it attempts to fit the results into the EMS framework created in the literature review chapters.

4.1 Replies

As outlined in chapter three, surveys were sent out to all forty-one national governing bodies that are affiliated to the New Zealand Olympic Committee. In addition, interviews were held with four of the national governing bodies in order to gain a more in-depth understanding of the context within which environmental decisions are being made. Out of the forty one surveys sent, a total of thirty-two have been returned, a success factor of just over seventy-eight per cent. However, among the thirty-two replies, there are some respondents who have not answered every section of the questionnaire.

Some informal feedback suggests that there are two probable reasons for non-replies. Firstly, there is an attitude amongst some sporting organisations that an environmental survey is not applicable to them. A number of completed forms included comments that indicate this. Secondly some sporting organisations may lack the resources or personnel to complete the form. It is noteworthy that of those nine organisations that did not reply, six of them have a membership below five thousand, suggesting a lack of resources and staff.

4.2 The organisations

The size of the surveyed sporting organisations ranges from sixty to two hundred and twenty thousand members, with an average membership of just over twenty-five thousand. They are staffed by zero to thirty-seven full time staff, although only four organisations have more than ten staff. The average is just over five and a half. Four national governing bodies have not provided information on their revenue sources. The sources of revenue is illustrated Figure Ten. From this figure it is clear that sporting organisations rely heavily on outside sources for their revenue, with only an average of 34.9 per cent coming from their members. However the range of financial dependence on members ranges from 0 to 95 per cent, which suggests that sweeping generalisations as to the significance of any one external stakeholder may be misleading. Fifteen organisations include sources such as competition levies, television rights, investment returns and the TAB in their revenue sources. Spectators and sales of merchandise both accounted for less than 2.5 per cent of the revenue that is received by New Zealand sports organisations.

All of the twenty-eight respondents that list their revenue sources, rely on some form of sponsorship. This sponsorship can be sourced from government or private organisations. Only four organisations do not rely on the government funding bodies for some of their revenue. Likewise, another four organisations receive no sponsorship from private companies. The average reliance on the government (via its funding bodies) is 33.43 per cent, but again the range is wide, going from 0 to 89 per cent. Fourteen relying on the government for over a third of their revenue. Eight organisations gain over a fifth of their revenue from private sponsorship, with the overall average being 12.39 per cent.

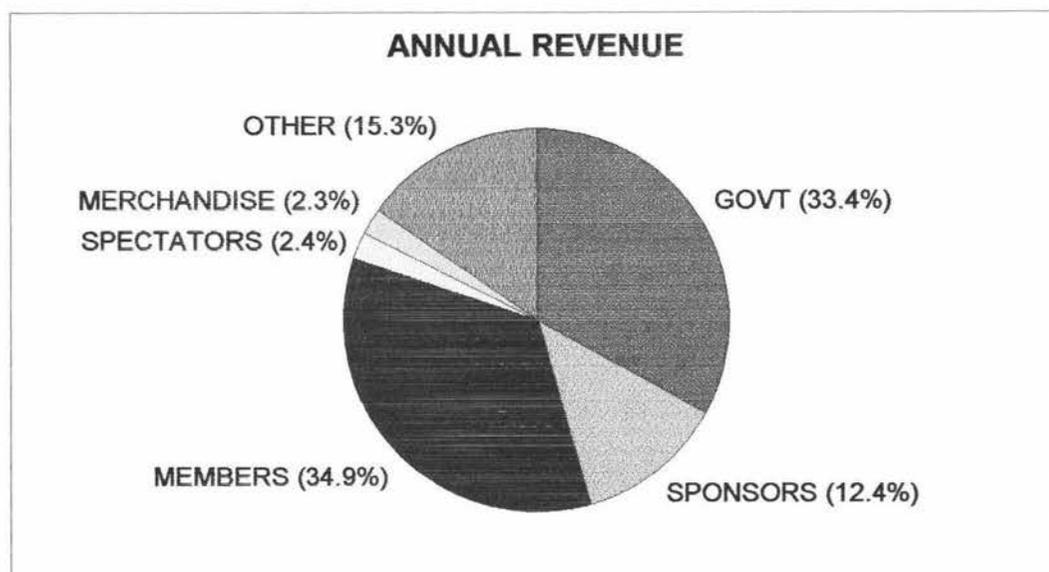


Figure Ten: Sources of revenue for sporting organisations

4.3 Separation between the national organisation and the clubs

Although this was not specifically asked about in the questionnaire, many respondents and all the interviewees place emphasis on there being a significant split between the national governing body and the levels of their organisation that organise events. Linked to this split is a view that suggests environmental management is more relevant to this 'practical' level of their sporting organisation, than it is to the national governing body. This suggests that to the respondents, environmental management is associated with direct interaction with fields, pitches, greens, halls, ski fields, and swimming pools rather than any policy process. This separation is also emphasised by the lack of knowledge that the interviewees often show about the administration of their sport at a local level.

This split of responsibilities may affect the influence the different stakeholders have on the sporting organisation. For instance, if the sponsor's contract (and thus negotiations) is with the national governing body, then any attempt by a sponsor to encourage an environmental movement within the organisation may be slow to reach those who are actually organising the events. It is also possible that the local organising committees may believe that this is a subject that is more appropriately dealt with, or at least lead by, the national bodies. On the positive side some of the interviewees acknowledge that there is a need to increase their awareness of what their local committees are doing, and to implement a national policy that can guide and lead the local members.

4.4 The influences

Influences have been outlined in Figure Eleven. All of the organisations acknowledge that they consult with at least one external stakeholder. Out of the thirty-two replies, twenty-four organisations consult with the government; twenty-six with their athletes and twenty-two with their sponsors. Given that these two groups comprise of the sporting organisation's ability to exist (revenue) and their reason for existing (athletes), these high numbers are not surprising. The interviews indicated that the organisations have different styles of consultation, especially with the athletes. Some organisations relied on informal consultation only. Others have a formal system in place of regularly surveying their members. Only three sporting organisations consult with their spectators. Other stakeholders that are listed as being consulted with in the "other" category include the industry members, and local clubs. Some respondents also place members in the "other" category as opposed to including them in the athlete/teams category. One national governing body indicated it consulted with the local community. EMS has the ability to increase those consultation rates by encouraging what the IOC (1997) calls consensus building. Consensus building is based on the premise that implementing an effective EMS should involve gaining information from many organisations in a community.

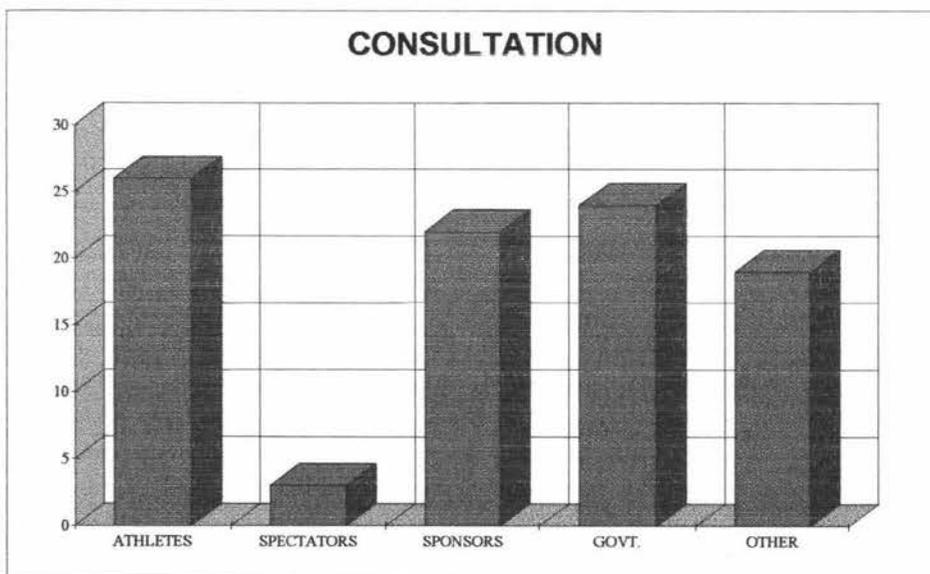


Figure Eleven: Stakeholders consulted by sporting organisations when undertaking major decisions

Figure Twelve illustrates the influences that can cause modification to administration of their sports. Eighteen respondents (of thirty) have been affected in the past both by legislative changes and/or marketing advantages. It is noted however, that the legislation cited in the interviews as causing changes, was either financial (public liability, tax laws) or drug testing legislation. No one makes any reference to the Resource Management Act 1991 or any other environmental legislation. This may be because the national governing bodies do not have much day-to-day dealings with the bodies enforcing the RMA. The level of the sporting organisation that interacts with territorial authorities may be more at the local committee level or the facility owners. However it should be possible for the national governing bodies to offer guidance and support for the local committees in this area.

Fourteen organisations are affected by consumer pressure. This makes it even more surprising that only three consult with their spectators. Thirteen state they are affected (or 'influenced' as some prefer to put) by their sponsor(s). Only ten consider themselves to be affected by moral persuasion. This suggests that arguments based on environmental ethics may be less effective than those based on marketing advantages and sponsor pressure.

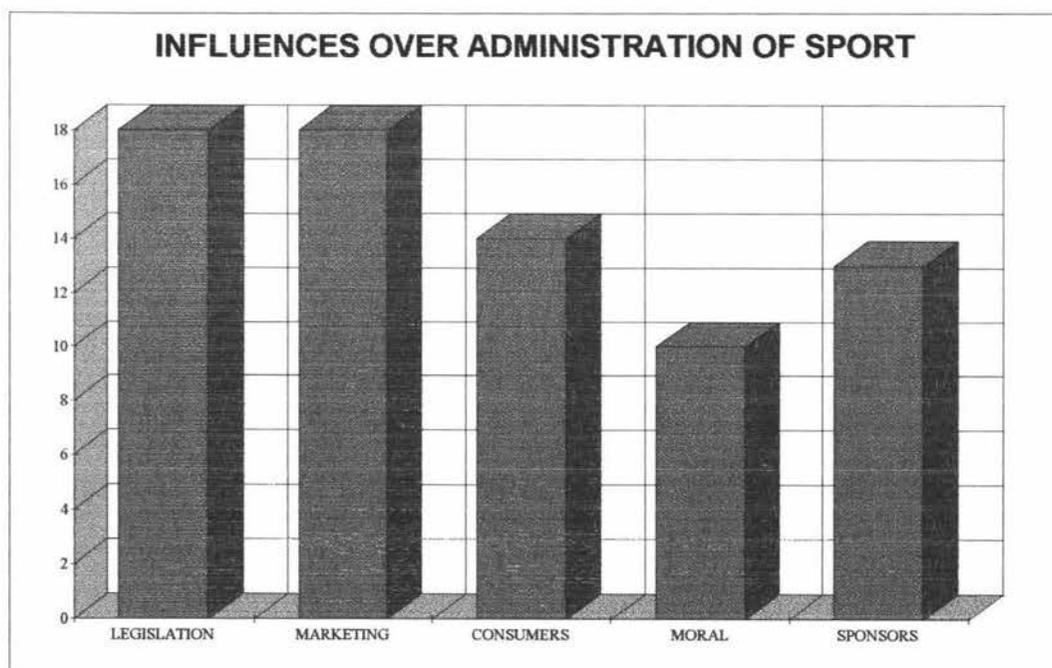


Figure Twelve: Influences over the administration of sport.

Just over 90 per cent of the organisations (twenty-nine organisations), consider themselves operating in a competitive market, and another 90 per cent consider themselves to be a non-profit organisation. This perception will have repercussions for the style of EMS that the national governing bodies believe is appropriate for their organisation. For instance, they will want an EMS that needs low resources to implement.

4.5 Environmental effects

Out of the thirty respondents that have replied to this part of the survey, only ten believe their sport has any positive environmental effects, and only eight acknowledge any negative effects. However of those that describe positive environmental effects, two give as examples impacts that are purely social values, such as creating a positive family atmosphere in the club. While impacts on the social environment is part of the larger picture of sustainable development, it is suggested that in this context it perhaps indicates a lack of understanding. Given this lack of perceived negative effects, it is perhaps not surprising that only six respondents state that their organisation has someone who is responsible for dealing with the environmental implications of their actions. It is somewhat logical that without the perception of their sport causing damage to the environment, the controlling body of a national sports organisation is unlikely to appoint someone to investigate environmental effects.

Even in the six organisations that have appointed someone to this role, the person responsible is often the sole administrative employee, the 'board' or the chief executive. This suggests a position of default rather than a planned policy. An EMS should have a formal placement of the responsibility for the environment, although note the dangers explained in Table Seven. Without this, the scheme may lack accountability. The formal placement also allows the relevant person to 'buy in' to the scheme which, in a small office, may go some way towards bringing a culture change in the organisation. The effect the role allocation has of formally notifying the sporting organisation of the new importance of environment issues also sends a strong signal to the members and supporters of the sport. Since a lack of focus on organisational culture is often cited as a major fault of the EMS scheme (see section 2.14.1), anything that can be done in this area is important.

Figure Thirteen illustrates some activities that the national governing bodies undertake. Thirty-one of them organise national competitions and twenty-five organise local

competitions. These two figures are somewhat unreliable though, as there was a mix of views as although the sport might run organised events, the national governing organisations tends not to formally involve itself in the organising of these events. Six respondents modify the natural terrain, and eleven build facilities in urban settings.

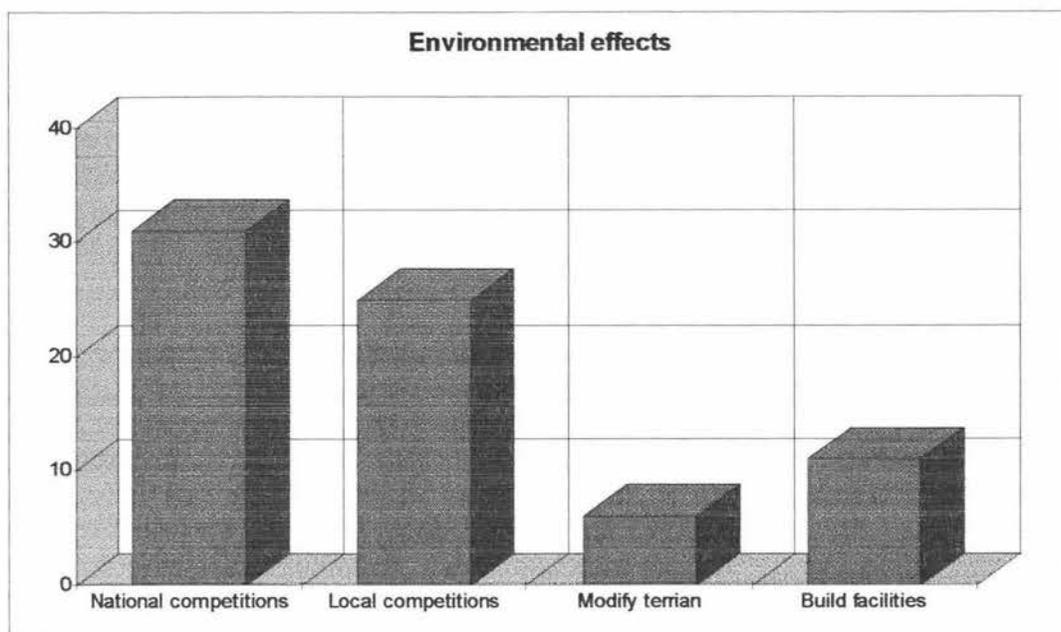


Figure Thirteen: Activities undertaken by sporting organisations that may have an environmental effect.

4.6 Attitude of the sports organisations

It would appear that the greatest hurdle facing those who wish to improve the way that sports manage their affects on the environment, may be the attitude of the sports organisations themselves. Comments added to the questionnaires suggest that many respondents think that environmental management is not relevant to their national governing body. One respondent commented that, although (s)he understands the concept of sustainable development, it's application is inappropriate to their sport. While argument still exists as to what the implementation of sustainable development will mean in practice, the most common definition is that it is growth that meets the needs of the present without limiting the ability of future generations to meet their needs (Sadgrove, 1997). Presumably that is not to suggest that the respondent believes development in an unsustainable way is an appropriate action for their sport. It is more likely that the

respondent has focused on the word 'development' and decided that their sport undertakes no development.

Only eight respondents acknowledge that their sports have any negative environmental impacts, and only eleven respondents acknowledge the presence of any positive environmental impacts in their sports. This low response suggests a lack of understanding, rather than any premeditated attempt to ignore impacts. However some respondents suggest, via comments in the survey's margins, that managing the environment was an inappropriate activity for a sports organisations. These sort of comments go directly against modern thinking that aims to have organisations managed in a sustainable way. One organisation proposed that since its members were environmentally conscious, there was no need for it, as a sports organisation, to be concerned with environmental management. This may suggest that a campaign that aims to educate its members on very general environmental issues may be a waste of resources. However, it does not excuse an organisation from checking that its actions, as a whole organisation, are doing the least amount of harm possible.

There was also a feeling of apprehension towards the concept of environmental management. There is a feeling that it may lead to extra costs, both time and financial. This was not extensively commented on, but is an impression that is gained from the reasons that are given as to why nothing has been done or is likely to be done by the sporting organisations in the area of environmental management. It is also a logical conclusion that stems from the funding problems many of the sporting organisations refer to. It may be a difficult issue to combat as implementing an EMS will cost some time and money. However there are options available to lower the cost and time. For instance, sporting organisations can work in a collective fashion to lower costs. They can also seek assistance from sponsors and umbrella sporting groups.

Another worry that came out in the interviews is that it is an easy area to produce positive sounding words, but in reality implement no actions that will make a significant difference. This concern was also noted in the ICU case study in Figure Three. To put it another way, some organisations specifically stated that they will rather do nothing than produce a policy that will have no effect. Specifically, it was felt that if they succumb to enacting a 'knee jerk' style reaction to environmental issues, then the policy produced may not be backed by commitment and action. If that occurs, the policy may produce an inappropriate attitude in the sporting organisations of having fulfilled environmental responsibilities. Yet the organisation may be no better in its environmental management post-policy, than it was before the policy. This suggests that the sporting organisations

may need help with the initial steps of establishing a programme of action. This help may come from an umbrella sporting organisation such as those listed in section 1.5.

Finally, there was a feeling voiced by some organisations that they will have to move on this issues soon. Three to five years was the time frame mentioned by some interviewees. However there is a presumption that the impetus for these changes will come from an external source, which reinforces the stakeholder theory presented in chapter two. Potential sources of this pressure that were mentioned include international bodies and central government funding bodies. As already mentioned in section 2.9(e), a environmental programme that is self implemented will probably be a better fit for any individual organisation, than a universal program that is imposed by a third party.

4.7 Implementation of EMS components

This set of questions received fewer replies than the other sections, with three of the four non-replies stating that the questions 'are not relevant' to their sport. However of the twelve questions, only one (identifying environmental responsibility) received more responses that said the organisation will implement or already has implemented the step, than said the organisation will not or can not implement the step. This suggests that any implementation of an EMS into sports organisations is going to involve some significant changes in the administration of the sport. An analysis of each separate point is set out below.

4.7.1 Establish a commitment to environmental improvement

Four organisations have already implemented a commitment to environmental improvement. Another eight respondents considered that their organisation will implement this commitment in the near future. However eleven respondents thought that their organisations will not consider establishing this commitment and another five thought that their sporting organisation can not implement a commitment to environmental improvement.

A commitment to establishing environmental improvement is a basic component of any environmental improvement programme. Without organisation wide commitment, the motivation needed to implement ongoing monitoring and review of the organisations environmental performance will be lacking. A suspected difficulty with the sporting

organisations may be the independence between the different levels of the individual organisations. For instance, little will be gained if the national governing bodies have a commitment to environmental improvement, but the local levels of the organisation, where the events are actually run, do not have that commitment.

The alternative to establishing an environmental commitment is having an external body force administrative changes in the name of environmental protection upon the organisation. This could be via legislation or by an international federation creating a policy. This appears from the interviews to be what many of the sporting organisations are waiting for (see section 4.6). That would appear to leave open the possibility that a legislation or rule change will cause a rush implementation of a new system that may be inappropriate to New Zealand's sporting organisations. It may be better for the organisations to pre-empt any law change by being proactive, enabling them to set the time frame and changes. It will also help individual sporting organisations to personalise their environmental programmes and gather commitment from members.

4.7.2 Review current status of environmental performance and environmental management

Four organisations review their organisation's current environmental performance. Only another five respondents thought their organisation will undertake this review in the near future. Three respondents believed their sporting organisation can not do this review, while fifteen believed it will not be done by their sporting organisation in the future.

For any organisation this review is a basic requirement of an EMS. However the review is especially important for sporting organisations as it should increase their current environmental knowledge. It does this by forcing the organisation to compare itself to the theoretically perfect environmentally managed organisation. To a certain extent this research provides an initial review. However, levels other than the national governing bodies will also need to be looked at for completeness. The review should also highlight where the organisation's focus should go. It is important to distinguish this step from other reviews undertaken. This review does not look at the impacts of a sporting organisation, but rather what that organisation is doing to prevent impacts.

4.7.3 Identify environmentally related legislation and regulatory requirements

Responses are almost evenly split between those who will carry out an analysis of legislation in the near future or who already review their relevant environmental legislation, and those organisations who will not, or can not, carry out the review. Five already review the environmental legislation and another eight will in the near future. However, eleven respondents believe that a legislation review is something, that although they can do it, they will not do so. Another three respondents consider that their sporting organisation can not do this.

Adhering to legislative requirements is a basic requirement for implementing an EMS. However, this is something that may be more appropriately handled, at least initially, by an umbrella sporting organisation. This is because the legislative effects are similar for all sporting organisations. The only legal division needed may be between those organisations that own their own facilities and those that do not. The legislation review should cover not only the national laws and regulations, but also local regulations and sporting regulations such as the IOC's rules.

4.7.4 Identify significant environmental effects of activities

Eleven respondents felt that their sporting organisations will not be interested in implementing this action, and another four respondents felt their sporting organisation can not implement this step. However, three organisations already have implemented it and a further nine soon might.

This is the point where the individual sporting organisations should identify what the impacts of their sports are. To a certain extent this analysis should be based on individual activities as the effects will differ depending of the facilities used and whether the sports events are held in natural or built up urban surroundings. Time spent at this stage will prevent wastage of resources at a later stage by clearly identifying problems areas.

This stage will also be important in the education of the sporting organisations, since it appears from the interviews and questionnaires that many of New Zealand's sporting organisations do not consider that they have environmental impacts, especially negative ones. It would be appropriate given the current knowledge and attitude of the sporting organisations if this stage is done with a cradle to grave focus to encourage sports to

take a holistic view. This would have the additional benefit of offering some encouragement to manufacturers and facility owners to make any necessary changes.

This is an appropriate point for sporting organisations to establish communication links with the community. As illustrated in Figure Fourteen, there are many groups within a community that a sporting group may consider relevant to consult with. All of these groups can contribute to the overall base of knowledge that the sporting organisation has (IOC, 1997). Effective communication with the community is also needed in the review stage.



Figure Fourteen: Potential communication links that can be developed while implementing an EMS.

4.7.5 Set environmental objectives, policies and targets

None of New Zealand's sporting organisations have an environmental policy, although one organisation has a formal intent to establish one. Two sporting organisations have already set their own environmental policies, objectives and/or targets and a further ten intend to do so in the near future. However, twelve respondents do not think their

sporting organisation will consider this in the future, and three respondents considered their sporting organisation can not set its own environmental objectives, policies and targets.

Once an organisation has established a commitment to environmental improvement, a written policy will illustrate and formalise that commitment. An environmental policy is something that can be used to in a marketing opportunity to gain advantage of the sports organisations 'green' image. It is also an internal source of motivation and enforcement to an environmental programme, as it is something that a governing body can utilise to encourage lower levels of the organisation to commit to increasing their own awareness. It is also a source of education in that it encourages different levels of the sporting organisation, as well as other sporting organisations, to learn more about the environmental issues arising from sporting impacts.

It is important that follow on actions are taken after the creation of the policy, as otherwise there is a risk of a policy being forgotten. Thus environmental objectives and targets (and later on, reviews) should stem from the policy. They should also be connected to each other in order to create a logical flow. In other words the targets should each stem from a specific objective. This allows an organisation to achieve a clarity of purpose in dealing with its environmental effects. They are also a logical outcome of the process of reviewing the sporting organisations impacts. The regular enactment and review of environmental objectives and targets helps the organisation avoid the trap of achieving nothing but words. If environmental targets are to have credibility they must be achievable and realistic and for that, individual sporting organisations will need to review the resources they can allocate to their environmental programme. Those resources include personnel and time as well as finance. The setting of a time frame for achieving objectives will assist motivation. They also need to be regularly reviewed to ensure they are up to date. Once an objective or target has been reached, a new target must be set. This is a form of the concept of continuous improvement that is encouraged by many of the universal EMS standards such as ISO 14000.

This is one area in which local organisations and event committees can be encouraged to individualise their own environmental programme by setting their own objectives and targets. While this may require high motivation skills on behalf of the national governing body, it may be one way in which these local committees can be educated about the issues effecting sport and the environment. It may also assist the local personnel and

volunteers to emotionally 'buy into' the environmental programme, and will allow them to do so at their own speed.

Rondinelli and Vastag, who's research was also cited in section 2.15, ask the question: 'what is an appropriate environmental policy for an organisation'? In their view, to answer this, three further questions should be asked:

- What is the appropriate level of environmental standards to which a company as a whole should inspire?
- At what level of the organisation should environmental policies and issues be addressed?
- What variations in policies should be adopted for plants or facilities that have technologies or locations that are more or less risky than others?

At first glance all three questions are also relevant to national sporting organisations. For instance: What is an appropriate level of environmental standards for our non profit sport to aim for? Does this focus need to be at the national or club level? Will individual sporting sites (such as a specific river's pollution levels) need to be analysed and an individual policy adopted as a consequence?

Rondinelli and Vastag (1996) also concluded that an organisation's environmental policies will fit into one of the four groups outlined below, depending on the type of problem faced:

Type	Size of risk	Environmental Risk
Reactive	Small	Exogenous
Proactive	Small	Endogenous
Strategic	Large	Endogenous
Crisis Preventive	Large	Exogenous

Since sporting organisations have a low environmental risk the options are between the reactive style of environment policy and the proactive style. The reactive style is appropriate for an organisation that has low pollution levels, a limited long term effect on the environment and affects a small number of people. The consequential policy focus is on meeting legislative requirements and minimum precautions against environmental accidents. The proactive policy on the other hand is appropriate for organisations that

have a high pollution level/risk but because of location or good infrastructure, poses only a small risk to the natural and social environments. The policy focus should be on continuous protection via risk assessment and management reviews. The reactive style is probably sufficient for large numbers of national sporting organisations but some sports that are practiced in natural surrounds, or have a significant effect on an urban environment may need a proactive policy.

4.7.6 Define environmental responsibilities and personnel

This was the most positively received question of the survey. It is the only question in which the number of positive responses outnumber the negative responses. While only two organisations have already defined their responsibilities to the environment, thirteen respondents consider that their sporting organisations will soon define their responsibilities as national sports. Nine respondents considered that their sporting organisations will not do this and two considered their sporting organisations can not define their environmental responsibilities.

In the literature, an average EMS would require the organisation to define where in the organisation the responsibility for managing environmental issues rests. This is a step which only six organisations consider that they have done (see section 4.5). In some sporting organisations this is going to be a redundant step as there is a bare skeleton staff. In thirteen of the national governing bodies there is none, one, or two paid employees. However, placing the responsibility in to a formal job description will at least allocate a level of importance to environmental issues that was not previously apparent. In other sporting organisations, such as the four organisations that have over ten staff, this role will need to be carefully allocated, and may perhaps have as much to do with education and experience in this area, as with the persons job title in the organisation. Someone with enthusiasm for the relevant issues is more likely to bring about change. There is still a role for the umbrella sporting organisation, such as the National Olympic Committee, to encourage the individual sporting organisations to make this move. Given the democratic nature of many sporting organisations there may also be a need to allocate an appropriate committee (and budget) under which environmental issues may be managed.

4.7.7 Prepare environmental management manual

This is the second most negative set of answers next to undertaking community initiatives (4.7.10). No respondents considered that they have already undertaken this stage, and only seven respondents thought their organisation will prepare an environmental manual. Thirteen respondents consider this step will not be undertaken in their organisation and six considered that it can not be done.

An organisation's environmental manual should gather together all of the formal elements of the EMS. Given the complexity of creating a manual, the umbrella organisation should consider initiating the action rather than waiting for individual sporting organisations to act. At least in the initial stages, a generic manual could be prepared and distributed to the individual sporting organisations. This generic manual may make up for a lack of knowledge by offering examples and methodologies to follow when setting up such items as an environmental policy or reviewing impacts. See Table Eight for the possible contents of a sporting organisation's environmental manual. Much of the manual's contents might be drawn from the IOC's manual on sport and the environment (IOC, 1997). Since the IOC's manual is likely to be extensively sourced by any international federation seeking to bring in a binding environmental policy or regulations on its national federations it would be to New Zealand's sporting federations advantage to pre-empt any binding policy to minimise the chances of having to review or renew its environmental manual and objectives once the international federation takes action.

One of the major parts of a manual is the establishment of formal procedures. This set of procedures provides a system for different processes that the sporting organisation undertakes. For instance a sporting organisation's processes may include event preparation, event management, post event clean ups, purchase/hire of facilities or equipment and use of hired facilities. If each of these processes has a written system to follow then no mistakes will be made. This is one of the aims of having a formal management system - eliminating human mistakes, and as such, it is a vital part of any EMS. It does however suffer under the criticism that it does not allow for human innovation or allow for flexibility. This may be a relevant point for sports as they may need flexibility in event management. These procedures should have three basic requirements according to Welford (1996). Firstly they must be comprehensive. There should be no activity that is at risk of causing environmental impacts, that is not covered by the procedures. Secondly, these procedures need to be understandable by everyone in the organisation. In the case of the sports organisations this will include volunteers as

well as administrative staff. Finally, the procedure must include a commitment to continuous improvement.

- | |
|---|
| <ul style="list-style-type: none"> • Taking advantage of environmental management • Legislative requirements • Writing a policy • Undertaking an environmental impact assessment (EIA) • Writing objectives and targets • Written procedures • Monitoring and reviewing impacts • Lines of responsibility • Establishing lines of communication • Contacts for assistance • Facility management • Event management • Cradle to grave management • Implementing a green office |
|---|

Table Eight: Possible contents for a sporting organisations environmental manual.

4.7.8 Plan environmental improvement programme

Two of New Zealand's sporting organisations already have an environmental improvement programme, and another eight respondents consider they will have the programme in the near future. However twelve respondents consider their organisation will not implement a programme of this sort and a further four respondents consider their organisations can not implement such a step.

If this step is followed then any environmental policy should be relevant and actioned. Reviewing environmental performance can be as simple a matter as seeing if all the organisations objectives and targets are being met, if the personnel responsibilities are still current and whether there are any legislative or international federation rule changes that need to be accounted for. It could also include a regular survey of the sports local committees, if not its actual members, to ascertain support for different objectives and targets. The results of any monitoring programme must obviously be kept on record in order to track changes.

4.7.9 Review and monitoring programme

The final three questions in this section of the survey all related to various components of the review and monitoring stage. The three questions were: whether the sporting organisation reviews the effectiveness of its environmental management programme; whether it reviews its environmental performance; and whether the sporting organisation monitored and kept records of its environmental performance. For ease of discussion they have all been grouped together.

Eight sporting organisations may implement a review of the effectiveness of their environmental management programme in the near future and two organisations already do. However thirteen respondents will not expect to see their organisation implement this review, and four respondents consider that their organisation can not.

Ten sporting organisations may implement review their environmental performance in the near future and two organisations already do. However eleven respondents do not expect to see their organisation implement such a review, and three respondents consider that their organisation can not review their environmental performance.

The question of whether the sporting organisations monitored and kept records of their environmental performance drew a fairly negative response. Fourteen respondents believed their sporting organisation will not monitor their environmental effects and a further four felt their sporting organisation can not do so. Only five responses indicated that the sporting organisation will implement this step and two considered that they already do monitor and keep their environmental records.

These steps are all basic requirements for effective environmental management. Their completion is especially important for the achievement of continuous improvement. The review and monitoring programme can either be as regular as the review of environmental performance outlined above, or it can be something that is incorporated into the planning of a sports event. For instance the monitoring of the number and types of complaints received, a collection of before and after photos of event sites or an annual review of manufacturers environmental status are all types of monitoring of impacts associated with the organisations sport.

The review process is essential, as it is the only way that an organisation can see if its targets have been met. It also shows whether the resources allocated to the EMS are being used in the most effective way. Records should be kept to show whether improvement has been reached over time.

4.7.10 Participating in community initiatives

Community initiatives were chosen as an example of a way sporting organisations can educate their members and the public about environmental issues. It is also an example of a method that a sporting organisation can use to set up communication links with the community. It was however the most negatively received question with six respondents considering that their sporting organisation can not do this and fourteen considering that their organisation will not implement this idea. Only two respondents consider that their organisation can implement this step and two organisations already do undertake community initiatives.

The lack of involvement in community initiatives may be a reflection of the administrative level of the sporting organisations that were surveyed. Currently only two take part, and only a further two would consider taking part. All the interviewees suggested that this may be an activity that is more common to the club or local level of their sporting organisations, but that they were unaware of whether it was done. Thus even if it is being done, there is a communication gap existing between the national governing body and the local committees.

4.8 Recognition of terms

Both the survey and interview participants were asked to indicate whether they recognised four terms commonly used in the area of environmental management. The terms were “sustainable development”, “environmental management systems”, “environmental auditing” and “ISO 14000”. They were also asked whether they could show understanding by giving their own definitions to each term.

‘Sustainable development’ is recognised by twenty-eight of the respondents (although not necessarily with understanding). Ten respondents offer their own definition to this term, which included one respondent who asks whether anyone really understands the term! None of the other three terms are as recognised, although all are recognised by a

majority. Notwithstanding the high recognition rate, most of the recognition is not accompanied by evidence the respondent understands the concept. The concept of 'environmental management systems' is recognised to some extent by twenty-five of the respondents (although only six suggested they understand the term). The concept of 'environmental auditing' is recognised by twenty-four of the respondents (of which seven also understand it). 'ISO 14000', as a concept, is only recognised by twenty respondents, although the interviews and definitions given suggest that this recognition is primarily a recognition of the ISO acronym, rather than a recognition of the universal environmental system. All of the interviewees show some recognition and understanding of the quality management system espoused by ISO 9000.

The definitions given to the four recognition questions, and the answers given to the positive and negative environmental impact questions, strongly indicate that there is a lack of familiarity with the terms commonly used in the area of environmental management. If the organisations are not talking the same language, then attempts to learn from each other will be hampered. Especially noticeable were the four respondents who listed as positive environmental impacts, activities that we would normally associated with social impacts. For instance, "creating a family orientated club atmosphere".

To improve this situation, as part of any sports organisation's environmental education, some resources need to be allocated to the language of environmental management. This may help the sports organisations to correctly identify the issues, and also begin to all speak the same language in the area of sports management. A method as simple as the Olympic academy sending out to all of the organisations a publication containing a glossary of environmental terms may begin to address this specific problem. A sample of such a brochure that has been developed from this research and is included in Appendix Four. Over the long term, usage of these terms will be the major way to familiarity and comfort with their use.

4.9 Conclusion

There is a multitude of issues to be dealt with by any sports organisation wishing to focus on the management of sports environmental impacts. This is true whether it is a national sports organisation dealing with the administration of just one sport, or a sports organisation that covers a collection of individual sports, such as the Olympic Committee. These issues include the small size of the organisations concerned, their low

resource base, and the diverse mix of stakeholders. However the most pressing issue is the lack of environmental knowledge in the sporting organisations, combined with a relatively negative attitude towards taking proactive steps at a national level to manage these environmental impacts. These factors mean the lack of widespread implementation of any of the environmental management system components is perhaps not surprising. To improve their environmental status sporting organisations need to move beyond compliance (see section 2.11). To do so requires knowledge, not just of where the organisation currently is, but also of where the organisation would like to go with its environmental programme. The sporting organisation will also need help with the formal aspects of environmental management in order to make sure that actions follow any environmental policy. Possible solutions to help national sporting organisations move up to, and then beyond compliance are discussed in the next chapter.

Chapter Five

Conclusion: The options available for sports in managing their environmental impacts

This chapter presents some solutions to the problems facing the sporting sector as it deals with its impacts on the environment. The chapter examines the issues facing the sports movement, including the pressures being placed on them to implement changes. It summarises the applicability of environmental management systems to the national governing bodies for sports. It then offers some suggestions that will assist those national governing bodies to bring in the rudimentary frameworks of an EMS. The chapter ends with some opinions on the future of the sporting movements management of its environmental impacts.

5.1 The sporting organisations

The traditional sports organisation, even in this increasingly professional age, appears to work in a relatively informal way, at least in the environmental management area. There is large amounts of authority handed over to local committees, with little communication over the results. The informality at the national governing level probably stems from factors such as having low staff numbers, a small revenue base to draw on, high dependency rates on sponsorship (private and/or government) and a structure that appears to have low communication and interaction across levels. In addition, sports organisations in terms of their impacts on the environment, have less risk factors than most manufacturing organisations, so the need for haste is not as apparent.

It is notable that many of the national governing bodies lack a formal system, but that they have a set of informal components in place. This was particularly noticeable in areas such as naming the person in charge of environmental impacts and review of

environmental impacts. The interviews suggest that some organisations will probably consider that they have an informal environmental policy. As a consequence, the areas that are covered by the informal system may be the easiest areas to initially focus on since there should be the minimum of disruption. However, time should be spent investigating the informal system to make sure that it is the most effective choice.

Where there is anyone mentioned as being responsible for the environmental effects of the sporting organisation, that person is often the sole employee of the sports organisation, the 'board' or is the chief executive. This suggests a position of default, rather than a considered allocation of the role. This conclusion of it being a default position was backed up by the interviews. One positive outcome of this may be a top level commitment to environmental management. However the status of the person holding responsibility would also suggest that environmental management may get lost in the day-to-day running of the organisation. This may lead to environmental effects only becoming an issue when something goes wrong. While little can be done when one person is the sole employee, in larger sports organisations a person below the level of the board may need to be appointed to take responsibility for the sports environmental impacts.

5.2 Pressures on sporting organisations

The immediate pressures on sporting organisations are derived from stakeholders. These pressures include such things as legislation from the state, regulations from international governing bodies, consumer pressure and sponsorship pressure. While the stakeholders are numerous, the lack of knowledge and concern shown by the national governing bodies suggests that these pressures are not overly strong yet. Thus if sports move to manage their environmental impacts they will be making a calculated gamble that the pressures will increase rather than decrease over time. Given the increasing pressures that are coming on organisations that operate for profit to act in an environmental way, that is a logical assumption to make. Sports organisations that move to bring in an EMS before the pressures become stronger will have the advantage of being able to move at their own pace. They will also gain the advantage of presenting a more positive image to the stakeholders. This stems from the perception that proactive environmental behaviour stems from an internal motivation to improve and an altruistic attitude to the public's well being. Reactive behaviour, on the other hand, is perceived as behaviour motivated solely to avoid punishment.

5.3 Issues with implementing an EMS into a New Zealand sporting organisation

EMS are focused on in this research because its implementation provides a useful basis for any environmental programme. For instance, once the information base required by EMS is established, that knowledge can be transferred to other roles a sporting organisations may play. These roles may include supporting an application for a new sports development, or educating the public about the environmental. The public education role is seen as important by the IOC (1997).

Traditionally EMS relies on a reasonably formal organisational structure backed up by rules, norms, practices and procedures to make sure that all environmental details are accounted for. Since the environmental management system was originally designed for manufacturing organisations, not all of its components are immediately transferable, or even applicable, to all sporting organisations. For instance, the difference in the structure and aims between the two types of organisations means that the resulting level of formality is different between the sectors.

Not with standing the obvious connections between sports and the environment, sports organisations have a large distance to cover in terms of attitude and knowledge. Without the pressure of the public scrutiny that the large manufacturing firms have been withstanding over the past decade, sports organisations have further to go in the area of changing attitudes and knowledge than the firms for which EMS were designed for. The size of the staff involved, the limited resources and the lack of knowledge that were highlighted in chapter four suggest that it may be sometimes more appropriate for an umbrella organisation, such as the National Olympic Committee to organise and take control over some parts of the environmental programme process. As mentioned in one of the interviews, some sports managers regret that New Zealand sporting organisations operate in a competitive style. Thus a collaborative approach in the non-competitive area of the environment may have spin offs in other areas, by allowing the sporting organisations a chance to establish better lines of communication.

The negative side of a collaborative approach is that it provides little protection against 'free riders', and may prevent the individual sporting organisations from gaining a sense of ownership of the scheme. These two negatives will also be of concern if the umbrella sporting organisation undertakes too much of the work in implementing an environmental programme for sports. A balance must be met, where by the individual national governing bodies are motivated and educated by an umbrella organisation, but still made to develop individual styles of EMS. This is particularly important given the

negative or apathetic attitude towards environmental management shown by most sporting organisations in the survey.

There is a lot of work to be done across the sporting industry. Although only two sporting organisations currently identify their environmental responsibility, thirteen others will consider implementing this step in the near future. The identification of environmental related legislation is also positively received with five sporting organisations already doing it, and another eight that will consider it. Three organisations have established a commitment to environmental improvement and review their organisations current environmental status. However five will not even consider establishing a commitment to environmental improvement. A further eleven are unlikely to implement the commitment. No organisation has an environmental manual. Only two organisations stated that they have an environmental policy. Although another ten thought they will create policies in the near future, twelve organisations will not or can not implement this basic step. Reasons given by some interviewees for not having implemented an environmental policies include the suggestion that environmental policy is more appropriately placed at a level below the national sporting organisation. This was especially stressed where facilities for competitions are leased off other organisations. However even when the organisation is responsible for organising facilities, it is felt by some that it was more appropriate for the local committee to take responsibility for the environment, although the need for guidance and monitoring from the top is acknowledged in one interview. The interviews also suggest that some sporting organisations may have informal policies, or other policies that can be stretched to cover the environment. Consequently, it is suggested in the following sections the New Zealand's sporting organisations should initially concentrate on just a few areas of EMS in order to establish what actions are important for managing the impacts of sport on the environment.

5.4 Investigating impacts

Of primary importance is developing an awareness amongst sports that they have impacts on the environment, and are affected by environmental issues. While part of this awareness will come from an education campaign (see below), there is a significant need for investigation into what the impacts of sports are. This knowledge will also help to focus procedures into the right areas. Long term there is also a need to know what the impact of sport is in order to see if there is improvement over time. This is a potential

area of future research (see below), as well as being one of the important steps in an EMS (see chapter four).

5.5 Training and education

The research undertaken in this study shows that within national governing bodies, there is a lack of understanding of basic terms. There is also a lack of responsibility accepted for the effects of sports on the environment. To counter that an initial program of training and education is desirable. This is perhaps something that could, at least in part, be undertaken by an umbrella sporting organisation. In fact, it may initially need to be lead from the umbrella organisation as the motivation may otherwise be lacking. To that end the New Zealand Olympic academy is undertaking some responsibility in this area to prepare publications that inform and educate its members (pers. corr.).

The need to focus on the several different levels of a sporting organisation will also be an issue. Thus while training and education is almost always part of any environmental management system, unlike manufacturing industries, the training and education stage for sporting organisations has both an internal and an external aspect. Firstly it is for the administrative staff of the sporting organisations. While many EMS diagrams and manual (Sadgrove, 1997, more references) place staff training and education as one of the middle stages of implementing an EMS, the current low levels of awareness and motivation for environmental management suggest that with New Zealand's sporting organisations this may be a stage that comes right at the beginning. It should also be ongoing to deal with the potentially high turnover rates in this volunteer based sector.

The second part of the training and education stage is for the grass root members of the organisation. This is in fulfilment of the IOC's view of the role of sport as an educator (IOC, 1997). It is also recognitive of the wider role a sporting organisation plays in the community. This is an area where a sporting organisation may be able to get increased sponsorship and increased publicity. By participating, organising and/or providing information on such community based things as beach clean ups a sport increases its profile. By getting out in the public and educating them on environmental issues, the sporting organisation increases its marketing opportunities for any potential sponsor.

5.6 Communication

The sporting organisation can use the opportunity of implementing an EMS to establish lines of communication both internally and externally. Internally, implementing an EMS provides an opportunity to review and improve the lines of communication between the different levels and committees in a sporting organisation. This was emphasised as a problem in section 4.3. It also provides an opportunity to establish (or review) lines of communication between the sporting groups, community groups and government departments. As indicated in section 4.5, only one national governing body indicates that they consulted with the community. This is what the IOC (1997) refers to as partnerships and consensus building. It is based on the premise that implementing an EMS can touch on many groups in a community. Figure Fourteen illustrates that in order to gain information about its impacts a sporting organisation might consult with community environmental groups, consultants, scientists, professionals, academics, local government, facility owners, local residents and local iwi.

At some point it is possible that a sports organisation may have to consider the issue of how public to make its EMS findings. Human nature suggests this is more of an issue if something goes wrong, or is considered likely to go wrong. However to fully reap the benefits available to a sports organisation operating an EMS, it is anticipated that the organisation will have to publicise its EMS. In particular the creation of an environmental policy is an opportunity for publicity. This publicity is in keeping with the attitudes of the supporters of EMAS.

5.7 Setting procedures in place

Not with standing the informal nature of New Zealand's sporting organisations, at some point implementing an EMS will require a degree of formality to be put in place that covers procedures and processes that sporting organisations undertake. The degree of formality is needed in order to ensure that no short cuts are taken that may lead to information being missed. These procedures should have Welford's (1996) three basic requirements. They must be comprehensive, the procedures need to be understandable by everyone in the organisation, and the procedure must include a commitment to continuous improvement. Part of this step will be a commitment to reviewing the system as discussed in the previous chapter. But it will also need a more positive attitude towards environmental management from the administrative managers.

What makes these three requirements more difficult to meet in a sporting organisation, is the need to cover various levels of the organisation. There is also a distinct difference in operations between the national governing bodies and the levels of the organisation that organise the competitions. This final point is one that was obviously in the minds of the interviewees. This means that the emphasis may have to be on the second point - the procedures must be understandable. The procedures will also have to be distributed widely across the organisation. Every level will need to have access to these procedures. The distribution of the procedures is also important in order to achieve vertical integration of the environmental programme.

5.8 Dealing with stakeholders

The individual sporting organisations may need assistance, at least in the beginning, to take advantage of the opportunities that having an environmental management system may present. For instance advice may be provided about marketing the new 'green' image and on how to use it to gain sponsorship. In this area sports groups will learn by following the example of their peers, and investment in this area by national bodies wishing to encourage sports to manage their environmental effect will pay dividends as other clubs and organisations see that an increased 'clean green' image may have financial rewards.

The concept of cradle to grave manufacturing is normally a concept that is considered an important part of any commitment to environmental improvement. This may be a difficult concept for a New Zealand sports organisation to implement in terms of its manufactured goods. Certainly the organisation can shop around to get the best environmental deal. It can encourage and educate the manufacturer to improve. It can also encourage other national sporting federations and its international federation to consider the environmental effects of the manufacturing of sporting goods. However the size of the market in New Zealand for the majority of sports, suggests that in terms of dollars spent, New Zealand may not have much ability to change polluting manufacturer's minds.

New Zealand sporting organisations should have more weight when it comes to considering the cradle to grave management of its sporting facilities. While these are often organised by local authorities, sporting groups are the major users of these facilities. Thus the sporting organisation can encourage the local authorities to take into account the placement of the facilities, material used and energy consumption.

Influencing the manufacturers and the facility owners are examples of horizontal integration.

5.9 Future research

Although the application of EMS into commercial organisations has been well studied, research of its application into the sporting industry is relatively new. This research sets a frame work for ongoing research. As mentioned in section 3.8, the newness of the research suggests that it would be useful to repeat the research in three to five years time in order to see if attitudes and knowledge have changed. This would also be a useful indicator to see if the programmes undertaken by the umbrella sporting organisations have been effective in bringing about changes in attitude. A study into the specific impacts of sport on the environment would be a useful companion to this study as the results may encourage sporting organisations to improve their environmental management. It would also help focus the sporting organisations on to the areas that are providing the greatest risks to the environment.

With the emphasis on the separation of policy and organising levels, it is also important to investigate what the knowledge and expectations of the organising levels of the sports organisations are. As mentioned in section 5.4, local levels of sporting organisations may expect the sport's national governing bodies to take a lead in the area of environmental management. It is also mentioned by interviewees that there is a need to increase their awareness of what their local committees are doing and to implement a national policy that can guide and lead the local members. This knowledge may be best gained via a survey of their members.

In addition the environmental policies of the facilities used may offer some interesting insights. It may be that many sports organisations already operate in a responsible way in regards to environmental management due to the policies they are contracted to uphold by facility owners. For instance the individual ski fields or swimming pools may already have environmental policies in place such as use of chemicals or litter collection.

Finally there is a need to survey at least some of the stakeholders in order to ascertain what their expectations in the environmental area are. Firstly there are the sponsors. A survey of these stakeholders could ascertain what their expectations are in regards to sports and the management of environmental impacts. This will be helpful information when a sporting organisation presents a campaign to potential sponsors. Secondly

surveying the users of sporting organisations, as the people the management process is meant to reflect, would lead to better understanding as to what their expectations are. Researching the environmental expectations the community has for sporting organisations may also help the organisations to focus on appropriate areas of concern. This last point may especially help in the social environment area.

5.10 Conclusion: Future for sports and the environment

New Zealand's sporting organisations will come under increase pressure to prove to external sources that they can effectively manage the environmental impacts of their activities. These pressures will come in various forms including moral, financial and regulatory. In essence, it is argued in this research that New Zealand's sporting organisations are better to move to environmental management out of proactive motivation rather than reactive motivation for four reasons. Firstly, it is in order to have an environmental management programme that specifically suits the sports sector. It is also necessary to gain marketing advantage by the linking of sports and the environment. Thirdly, for those that are part of the Olympic movement, it reflects the IOC's stated desire to have sports better manage their environmental impacts. Finally, it reflects a management change that is moving away from growth at all costs, and is now prepared to accept the need for some degree of sustainable practice.

The suggested management tool used as a basis for this research is the EMS. This was chosen because it provides a platform for other tools to be inserted into in the future. In the meantime EMS provides an information base and education about the environmental impacts of individual sports. The EMS would set in place the procedures and the lines of communication needed if the sporting sector is to work in a more sustainable way. However the information gained from the survey and interviews undertaken for this research, suggests that a basic education campaign is needed before sports will be willing to take responsibility at their level. The research shows a lack of understanding of the issues, a lack of knowledge about the environmental impacts of sports, and a lack of desire to do anything about those impacts. There was a high degree of willingness to shift responsibility for the environment, either onto the members, or onto the sport venue owners. Many of the surveyed governing bodies saw responsibility for the environment as solely the domain of the venue owners. Finally there was little that is being formally done to evaluate the impact of sport on the environment.

There may be mix of reasons for this ignorance, Firstly, the IOC, and the IF's, could arguably be accused of placing words, but no actions in front of the national federations. While on an international level, conferences have been held, a very general manual written and some international federations have suggested policies, little beyond that appears to have happened. It is commendable that the IOC does not want to dictate how individual sports, and individual nations manage the environmental impacts of their sporting organisations. But given the level of confusion in this area, little appears to have been done at the level of the individual sport, either in policy or resource allocation. Some level of guidance, if not assistance, is going to be needed. On a positive note, the New Zealand Olympic Committee is showing signs that it wishes to take a leading role in offering education in this area (pers. com.).

There are three key things that must happen in the sporting industry. A process of education is needed so that the individual sporting organisations have enough knowledge at their disposal to make informed choices over what their needs are in the area of environmental management. Lines of communication need to be established between community groups and the sporting organisations. Finally the sporting organisations need to establish procedures that will enable them to anticipate, monitor and improve their environmental effects. This needs to be done with the support of umbrella organisations that will encourage, educate and motivate. It also needs to be done with an aim of embracing the commercial opportunities that a green image may bring. This is needed to balance the costs in resources that an environmental management programme such as a EMS may bring.

Appendix One: List of New Zealand's national governing bodies

NZ Archery Association
Athletics New Zealand
NZ Badminton Federation
Baseball federation
Basketball NZ
NZ Bobsleigh & Skeleton Association
Bowls NZ
NZ Boxing Association
NZ Canoeing Federation
NZ Cricket
NZ Curling Association
Cycling NZ
NZ Equestrian Federation
NZ Amateur Fencing Association
NZ Gymnastics Association
NZ Handball Association
NZ Hockey Federation
Ice Racing Federation of NZ Inc
NZ Ice Hockey Federation
NZ Ice Skating Association Inc
NZ Judo Federation
NZ Olympic Luge Association
Netball NZ
NZ Federation of Roller Sports
Rowing NZ
NZ Rugby Football Union
NZ Shooting Federation
Snow Sports New Zealand
Soccer NZ
NZ Softball Association
NZ Squash
NZ Swimming federation
Table Tennis Association
NZ Taekwondo Federation
NZ Tennis
NZ Tenpin Bowling Congress
Triathlon New Zealand
Volleyball NZ
Olympic Weightlifting New Zealand
NZ Olympic Wrestling Union
Yachting NZ

APPENDIX TWO: ISO 14001 principles.

1. Recognise that environmental management is one of the highest priorities of any organisation.
2. Establish and maintain communications with both internal and external interested parties.
3. Determine legislative requirements and those environmental aspects associated with your activities, products, and services.
4. Develop commitment by everyone in the organisation to environmental protection and clearly assign responsibilities and accountability.
5. Promote environmental planning throughout the life cycle of the product and process.
6. Establish a management discipline for achieving a targeted performance
7. Provide the right resources and sufficient training to achieve the performance targets.
8. Evaluate performance against policy, environmental objectives and targets, and make improvements when possible.
9. Establish a process to review, monitor and audit the environmental management system to identify opportunities for improvement in performance.
10. Encourage vendors to also establish environmental management systems.

Appendix Three: Questionnaire

Over recent years public concern and media attention over environmental issues has grown enormously. In addition international sporting organisations such as the International Olympic Committee have emphasised the need for sport organisations to manage their environmental effects. **This a survey which will be used by a Massey University student and by the New Zealand Olympic Committee to further their work in the area of the environment as it relates to sporting activities.** We are asking for information that will help to produce a better understanding as to whether our New Zealand sporting organisations are aware of firstly, their environmental impacts and secondly, some of the methods available to monitor and manage those environmental impacts.

Introduction

Name of Organisation _____

How many staff are employed in an administrative role in your sporting organisation?

Number _____

How many New Zealanders are registered (or equivalent) as involved in your sport?

Number _____

What approximate percentage of your annual revenue do you get from the following?

Government	_____%	Spectators	_____%
Sponsors	_____%	Sale of merchandise	_____%
Members	_____%	Other (Please state)	_____%

Stakeholders and Impacts

Who would you consult with when undertaking major decisions?

Athletes/Teams	<input type="checkbox"/>	Government funding bodies	<input type="checkbox"/>
Spectators	<input type="checkbox"/>	Other _____	<input type="checkbox"/>
Sponsors	<input type="checkbox"/>		

Has any of the following caused you to modify how you administrate your sport?

Legislative changes	<input type="checkbox"/>	Moral persuasion	<input type="checkbox"/>
Marketing advantages	<input type="checkbox"/>	Pressure from sponsors	<input type="checkbox"/>
Consumer pressure	<input type="checkbox"/>		

Do you consider that your sport is operating in a competitive market?

Yes No

Do you consider your organisation as being a non-profit organisation?

Yes No

Which the following activities does your sport undertake:

National competitions	<input type="checkbox"/>	Modifies natural terrain	<input type="checkbox"/>
Local competitions	<input type="checkbox"/>	Builds facilities in urban setting	<input type="checkbox"/>

Do you perceive your sport as having any **positive** environmental impacts? If yes please provide details.

No

Yes

Do you perceive your sport as having any **negative** environmental impacts? If yes please provide details.

No

Yes

Who (if anyone) is responsible in your organisation for dealing with the environmental implications of activities undertaken?

(Position) _____

Does your organisation have an environmental policy or similar? If yes, would it please be possible for the research to have a copy of the policy.

Yes

No

Please note which of the following are incorporated, or could be incorporated into your organisation:

	Already do it.	Would consider implementing near future	Could implement, but unlikely to do so in organisation	Could not implement
Establish commitment to environmental improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review current status of environmental performance and environmental management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify significant environmental effects of activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify environmentally related legislative and regulatory requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Set environmental objectives policies and targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Define your environmental responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan environmental improvement programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepare environmental management manual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monitor and keep records of environmental performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review environmental performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review effectiveness of environmental management programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participate in community initiatives such as beach clean ups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix Four: Contents of a draft rouchure prepared for New Zealand's Olympic Committee

SPORT AND THE ENVIRONMENT

INTRODUCTION

Sports organisation can perhaps be excused for believing that they are immune from the changes in thinking stemming from the green revolution. However they are as responsible for the environment as any other organisation.

In 1997 the International Olympic Committee released its environmental policy and based it on the Olympic movement's duty towards society and the well-being of humanity.

The IOC's desire is to act as a positive catalyst to foster environmentally sound actions that will go beyond the Olympic games to the sports community at large. This ambition has been adopted by the New Zealand Olympic Committee.

IMPACTS AND ISSUES

An accepted definition of the environment is the surroundings in which an organisation operates. This covers the physical social and cultural environment. Sport can have many impacts. For instance:

- ◆ litter from events
- ◆ destruction of flora and fauna
- ◆ modification of built up areas
- ◆ noise and light-spill from events
- ◆ waste in the office
- ◆ environmental cost of travel to and from the event
- ◆ offence to a cultural group

There are significant advantages to implementing an environmental policy.

- ☑ avoid future environmental problems
- ☑ portray a better image of your sport
- ☑ appear more professional to sponsors
- ☑ become aware of legal requirements
- ☑ improve relations with communities
- ☑ may highlight areas of waste that you can economise in
- ☑ information on the consumption of resources may highlight possible financial savings
- ☑ by acting now, sports organisations may prevent the imposition of generic environmental controls by an outside source

" Think Globally Act Locally "

Agenda 21 and other international agreements concerning the environment have focussed the world's attention on improving our degraded planet. The ability of New Zealanders to achieve sustainable management of its natural resources is determined by ecological and geographical conditions and our capacity as citizens to manage the effects of our activities while providing for society's needs.

The sports community has an obligation along with other community based organisations to accept responsibility and play a role in handling environmental issues at several levels

1. **Individual Responsibility as NZ Citizens** to live in harmony with our surroundings
2. **Responsibility as Athletes** to reduce their impact on the environment. In some cases, a degraded environment may affect sporting performance, health and our lives.
3. **Responsibility as Coaches and Managers** to use their influence to communicate basic environmental principles to their athletes and young children aspiring to athletic ambitions.
4. **Responsibility as Spectators** to respect advice from sporting event organisers about disposal of waste and using environmentally friendly transportation, thus demonstrating commitment to the environment.
5. **Collective Responsibility in Organisations** to develop new attitudes to the environment (which are appropriate to the needs of the local community) in conjunction with sports education programmes.

GLOSSARY

Environment: The surroundings in which an organisation operates. This includes air, water, land, natural resources, flora, fauna, humans and their interrelation.

Environmental impact: This is any change to the environment, whether adverse or beneficial.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Environmental management system (EMS): The organisational structures, responsibilities, practices, procedures, processes and resources for implementing and maintaining management of the organisations environmental impacts.

Environmental policy: A written statement that articulates an organisation's official attitude towards the environment. It provides the basis for any environmentally related actions, objectives and targets that the organisation undertakes.

Ecosystem: the interaction of the living and non-living components of the environment within a defined location.

WHAT YOU CAN DO

Bring in a environmental policy

Spend some time analysing what are your impacts and monitor improvements over time

Educate your members

Used recyclable products

Take photographs of sites before and after events.

Talk to officers in your local council's resource management section.

Create lines of communication with local communities and environmental groups

Read the IOC's manual on sport and the environment (available from the Olympic academy)

Make sure that someone in your organisation is responsible for investigating and monitoring the environmental aspects of your sport

Accept that responsibility for the environment is applicable to all levels of sport - from the smallest club to the international federation

GLOSSARY

Benchmark:	A standard which organisations can aim for.
British standard (BS) 7750:	A now withdrawn British standard that was one of the inspirations for the ISO 14000 series.
Continuous improvement:	The ongoing process of enhancing an organisation's EMS so that improvements in environmental performance occur (Sadgrove 1997).
Corporate environmental reporting:	The periodic disclosure of information about a companies environmental issues arising from its activities. Corporate environmental reporting can be a subset of other types of financial, social and ethical reporting (KPMG, 1998).
Eco management and audit scheme (EMAS).	A European Community initiative that includes an EMS scheme as well as evaluation of environmental performance. It is limited to European companies that are performing industrial activities and is voluntary. <i>Council Regulation No 1836/93/EEC</i>
Environment:	The surroundings in which an organisation operates. This includes air, water, land, natural resources, flora, fauna, humans and their interrelation. In the context of an EMS the environment will extend from within the organisation up to the global system.
Environmental impact:	This is any change to the environment, whether adverse or beneficial. An organisations environmental impact is the above when the impact wholly or partially results from the organisation's activities products or services.

Environmental aspects in product standards:

Criteria found in ISO 14006 that encourages designers of products to account for the effects on the environment of their designs.

Environmental auditing:

A management tool that provides a systematic, documented, periodic and objective evaluation of the performance of the organisation, management system and processes that are designed to protect the environment. An environmental audit has two aims. Firstly is to ensure compliance with legislation and the company's own policies. Secondly, the audit aims to facilitate management of and control over the organisation's environmental practices and impacts.

Environmental labelling:

Also called Eco-labelling. The ISO standards in this area seek to create universal terms and definitions for environmental claims on labels.

Environmental management system (EMS):

The organisational structures, responsibilities, practices, procedures, processes and resources for implementing and maintaining management of the organisation's environmental impacts.

Environmental performance (EPE):

A tool that is primarily used to assess an evaluation organisation's progress towards its environmental objectives. It attempts to measure, describe and assess the environmental performance of the organisation.

Environmental policy:

A written statement that articulates an organisation's official attitude towards the environment. It provides the basis for any environmentally related actions,

objectives and targets that the organisation undertakes.

- International federations (IF): International non-governmental organisations recognised by the IOC as administrating one or more sports at world level and encompassing organisations administrating such sports at national level.
- International Olympic Committee (IOC): The governing body of the Olympic movement. The IOC includes the session/general assembly and the nine person executive that manages the day to day activity of the Olympic movement.
- International Organization for Standardization (ISO): A worldwide federation formed in 1946 and comprising of national standards bodies from over 110 different countries. The aim of ISO is to promote the development of international manufacturing, trade and communication standards. All ISO standards are voluntary, although its influence means that many standards become legal standards or quasi-mandatory in many nations. Standards can either be guidance standards (provide advice) or a specification standard (verifiable).
- ISO 9000: A set of generic standards developed by ISO that provides businesses and other organisations with a structure for managing quality in their organisation.
- ISO 14000 series: A set of generic standards being developed by ISO that will provide businesses and other organisations with a structure for managing their environmental impacts. ISO 14001 (specifications for implementing an environmental management

systems) is the only standard in the ISO 14000 series that has specifications rather than guidance criteria. However it provides no performance criteria. ISO 14004 provides guidance for implementing an EMS, and ISO 14000 provides for certification and auditing of an Organisation's EMS.

Lifecycle assessment:

A tool for evaluating the environmental burden of a product. It measures the environmental impacts of that product from the extraction of the raw material in the product to its final disposal.

National Federations:

A non-governmental association that provides administration on a national level for a sport.

Resources:

The elements, goods and energy used, or potentially able to be used to meet the needs of people. The resources can be renewable or non-renewable.

Sport:

An institutionalised and competitively orientated physical activity.

Stakeholders:

Individuals, groups or organisations that have, or claim to have an interest in, or rights over, an organisation. These rights and interests can be based on legal or moral grounds and develop from transactions with, or actions of, the organisation. Stakeholders can include employees, shareholders, consumers, local residents, other related industries, the general public, the state, and environmental and social organisations.

Standard:

A document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules guidelines or characteristics

for activities or their results, aimed at the achievement of the optimum degree of order in a given context (Welford, 1996, p60).

Standardisation:

The activity of establishing, with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context (Welford, 1996, p60).

Standards New Zealand:

New Zealand's representatives on ISO.

Sustainable development:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

System:

A set of components and the relationships between them.

Total quality management

A management approach that centers on quality. It aims at long term success via customer satisfaction and benefits to the members of the organisation and the wider society.

Waste:

Resources that are not needed after a process.
Pollution is a form of waste.

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