Golf & Environment 2008

Guidance for National Golf Federations



Contents

Think of the environment - please do not print this report.

1.0 Foreword	3
2.0 Background	4
3.0 Golf & Environment	6
4.0 Relevant Policy Areas	9
5.0 Strategic Programmes Supporting Federations and Facilities	15
6.0 Guidance for the Role of National Golf Federations	19
6.1 Structuring and Coordinating Activity	22
6.2 Action Areas and Practical Activities	26
7.0 Conclusions	32
8.0 Appendix	34

Researched and prepared by the Golf Environment Organisation and the European Golf Association, in collaboration with The R&A

1.0 Foreword

The **European Golf Association** is proud to present this landmark environmental report, which aims to provide member federations with practical guidance on how to best engage with environmental issues.

The EGA Ecology Unit, launched in 1994, was one of the first concerted environmental efforts in European golf. This legacy is continued through the progressive work of the non-profit body GEO.

GEO are the authors of this report, and we are delighted to have worked with them in its preparation. We are also very pleased to have collaborated with The R&A Golf Course Committee, to ensure that the messages herein are consistent

with their own pioneering efforts in the game.

John C. Storjohann President European Golf Association



The **R&A** is delighted to support the work that has been done to produce this report on the progress that EGA members are making on environmental matters.

Currently there is a strong move in Europe to ensure that the environment, and its management, are taken more seriously, and The R&A is fully supportive of those within the golf community who are participating in this development.

Our role is to safeguard the future of golf, and to this end we believe that the use of environmental best practice will go a very long way to ensure golf courses are sustainable, and seen to be adding to

the heritage and culture of all European nations.

Peter Greenhough Chairman R&A Golf Course Committee



Bjorn Nordberg Chairman Golf Environment Organisation



The **Golf Environment Organisation** supports golf and recognises its role in the global environmental movement. This report is part of that work, and we are honoured to work with both the EGA and The R&A in its preparation.

We would like to acknowledge the support received from golf federations across Europe who supplied information and examples of practical action to compliment the central guidance.

We feel this is an important document and presents a model for national golf federations to take a proactive and positive lead on environmental sustainability. It also sets out what we believe to be the benefits of such action.

2.0 Background

This report has been researched and prepared by the Golf Environment Organisation and the European Golf Association, in collaboration with The R&A.

It aims to offer guidance on the role of National Golf Federations in addressing the increasingly influential issues of environmental sustainability.

The report stems from ongoing collaboration between the EGA and the Golf Environment Organisation, to look at how environmental issues were affecting National Golf Federations, and to gather information on the actions being undertaken in different countries.

The role of the EGA on environmental issues was also considered during this collaboration. It was felt that the EGA could play a limited, but none the less useful role in supporting the environmental activities of national federations, particularly in encouraging practical and political action by federations, and in sharing information between countries. It was felt that such

Report Objectives

- Offer constructive and practical environmental guidance to national golf federations
- Provide an overview of environmental activity in European golf
- Facilitate sharing of experiences between countries

activities could complement those of The R&A and GEO, as all three bodies strive to improve the environmental stewardship of the game, and the wider recognition of the role golf plays in environmental protection.

Flemish Environmental Planning



Environment and Planning are core areas of operation for the Golf Union in Flanders (VVG). A dedicated committee has been addressing key environmental issues since the inception of the federation in 2001. The committee is comprised of greenkeepers, golf managers and experienced volunteers from golf clubs. It manages a small budget that is funded by the incomes of the members of the federation.

There is one staff member (with a Masters degree in Biology and Environmental Impact Assessment) working on this topic about 50% of their time. In total the VVG has 5 full time staff members.

3.0 Golf and the Environment

Issues of environmental quality and protection, sustainability, resource consumption, climate change and pollution are now at the heart of how society functions.

The environmental agenda has grown to become one of the highest profile and most influential aspects of government policy and public opinion. The pressing need to conserve resources, avoid pollution of water and air, control climate change and protect biodiversity will drive policy, regulation and expectation for generations to come.

Closely linked to this are the concepts of social justice and social responsibility, where environmental damage and exploitation of resources effects people – both in the immediate locale, but also around the world.

These are not a passing fad, but are issues that cut right to the heart of how society can function within an environment, and with the resources it needs, to sustain the quality of life we have come to expect.

"environmental damage and exploitation of resources affects people

The significance of the environmental and sustainability agendas can no longer be doubted, nor should it be under-estimated by any business interest.

Every part of society, every sector, every land use, every individual is affected, and each has a role to play in ensuring that we live sustainably in a resource rich and healthy environment.



Figure One: Simple representation of how society functions within the environment, benefiting from its natural resources and ecosystem services, and how the economy, in turn is a function of society.

" the leadership role of National Golf Federations on environmental issues is vitally important

In recent years, environmental debate within golf has switched away from why should we do it?, to what do we do?

This process of increased awareness and understanding within golf was initiated by the EGA itself with the establishment in 1994 of the FGA Ecology Unit. This was supported by the activities of the European Tour, Ryder Cup and The R&A. The Federation of European Golf Greenkeepers Associations also played an important early role. The Ecology Unit's work was taken on by the Committed to Green Foundation, which undertook considerable developmental work on the issue of environmental certification. More recently The R&A Golf Course Committee has taken up the baton, stimulating valuable debate into the issues of sustainable turfgrass management, and the relationship with other issues such as water conservation and pollution prevention.

Danish Environmental Policy

Golf courses must be planned with respect to existing landscapes and seek to emphasise the existing qualities of a site. Development must result in a neutral environmental impact and endeavour to promote native species.

DGU

Large advantages for nature and environment can be secured through sensitive and careful planning. Initiatives to enhance nature on the golf course are useful for flora and fauna and improve the overall experience. In this way a golf course can provide greater stimulation to both frequent players and visitors alike.



Over the same period, many National Golf Federations have been taking a lead in their respective countries and regions. At the forefront of this were the Scottish, Swedish, Dutch, Italian, Flemish and Danish Federations who all appointed full time environmental specialists to work with member clubs / facilities. The French, English, Welsh, Irish, German, Finnish, Portugese and Spanish have all undertaken a variety of very credible projects, some of which are highlighted as short case studies within this report.

What has become obvious is that the leadership role of National Golf Federations on environmental issues is vitally important.

7



French Water Charter

ffgolf

In 2005, a 3 year agreement was reached on the sustainable use of water between the French Golf Federation, the Ministry of Sport and the Ministry of Ecology and Sustainable Management. It was supported by the French Golf Course Owners Association and AGREF (the French Greenkeepers Association).

The Charter aims to create a general guideline for the sustainable use of water resources in golf, and the progressive reduction of the environmental impact of water use within the sector.

Within the agreement the golf sector has committed to: undertake an audit and aim to reduce consumption at all courses using public water by 30%; report transparently on the amount of water consumed; create a water reduction plan and register with the government; take actions to preserve water quality, including reducing fertilisers and pesticides, and documenting turf management programmes; undertake best management practices on re-use of rain water and grey water; evaluate the need for water for vegetation, nature and soil to have the best irrigation system possible; use the best techniques and the best vegetation to economise water; promote education on water use.

The Charter is supported by the Ministry of Sport which has committed to: support research on golf and environment; determine the real impacts caused by golf on the environment; measure the cost/benefit for golf.

4.0 Relevant Policy Areas

Climate Change and Water

Changes in climate are having, and increasingly will have, significant implications for golf. One aspect of major concern is water resources – with increasing demand rising as supplies reduce.

The situation will be exacerbated in southern European Member States where recent droughts and competition for limited supplies have highlighting the risks to both the golf business and the natural environment. To minimise environmental impact and to ensure the sustainability of both the environment and the sector, golf needs to adapt to climate changes with new national policies for golf development and management, and practical water conservation action at local level.

Climate change – its causes and impacts, are now being heavily regulated and are very high profile amongst the general public. It is an area in which the golf industry must seek to play a constructive part in mitigating the effects, and also take proactive action in identifying the pressures golf will face and the adaptation it can take.

In the future it is likely that all businesses will be required to account for the carbon they emit, which can in fact increase efficiency and reduce waste.





A Strategic Plan for Water Management



Widespread restrictions on mains water use during 2006 in parts of South-East England highlighted the dependence of the golf sector on water for irrigation and the delicate balance that exists between water supply and demand.

Coupled with rising competition for water between sectors, government demands for greater environmental protection, and the longer-term threat of climate change, it is apparent that golf clubs will need to adapt and manage water supplies that are likely to become less reliable and more expensive. It was largely in response to these pressures that the EGU commissioned Cranfield University to undertake a baseline assessment of irrigation use in golf, and to develop a strategic water plan for the industry.

This strategy is therefore to plan and implement a set of actions that will ensure that golf receives a fair share of available water resources and uses it in the most sustainable and efficient way.

Nature and Biodiversity

Few leisure activities have such an intimate interaction with the natural environment as golf. The landscape, natural and semi-natural vegetation are fundamental to the enjoyment of the game, but also serve as increasingly important habitats for a wide range of flora and fauna – especially as surrounding areas are pressured by urbanisation and agricultural intensification.

Research and evidence suggests that golf courses can often be equal to many natural habitats in terms of animal and plant diversity. In many cases, golf courses can contain levels of biodiversity equal to or above that of the habitats they replace – depending on the nature of the site prior to golf development.

Golf courses can contribute to the conservation of biodiversity by providing habitats for species of local, national and international conservation interest. However, information to promote ecological best management practices is lacking with only limited sharing of information on biodiversity between different countries.



" golf courses can contain levels of biodiversity equal to that of the habitats they replace

Ecologically rich courses are a double win for golf – where courses can be challenging and exciting as a result of the habitats they contain, the sector can be praised for its valuable role in the conservation of wildlife.

Natural Resources and Waste

Resource consumption – how much we consume – is perhaps the most important environmental issue facing society today. All sectors, including golf, are now being encouraged to consume fewer natural resources, raw materials and products. Consumption is directly related to depletion of resources, damage to the earth's ecosystems, emissions of greenhouse gases, and levels of waste.

The key priorities relating to golf course management and development are efficient use of water, sands, soils, construction materials, fertilisers and pesticides, oils and other fuels, and other energy supplies such as electricity and gas.

Efficiency in using resources and reducing waste is good business – something that appeals to many golf facilities as they increasingly operate as small to medium sized enterprises.

The long term agenda for golf, like all other sectors, is to reduce resource consumption and waste, and there is considerable legislation in this area. However, there are other drivers, such as the increasing costs of oil, which directly affects oil reliant industries such as fertiliser manufacturing. In addition, the creative golf facility can now seek to benefit from many of the government led incentives in areas like energy efficiency and waste management. "Efficiency in using resources and reducing waste is good business



Environment and Health

Golf courses are known to provide important recreational and tourism opportunities that help meet national government health objectives. In many European countries they generate significant economic returns and support rural employment.

With a relatively small amount of action on environmental issues – based on sound environmental management planning within golf facilities, European golf could become the international focus for sustainable land use and leisure. Individual facilities, national sectors, and a European industry that provides balanced social, economic and environmental benefits.

This is a tremendous area of opportunity for golf in Europe, where considerable additional public and governmental recognition and respect can be generated. Much depends on action on the ground within facilities to provide the evidence that golf is delivering tangible environmental benefits, alongside its social and economic values.



"European golf could become the international focus for sustainable land use and leisure



Environmental Management Systems in the Stockholm and Uppsala Golf Districts

Introduction and Background

To achieve sustainable development of all sectors of business, the importance of environmental issues have for the past decade increased both globally and locally. Golf facilities can bring valued environmental benefits through their active management and stewardship of landscapes, species and habitats which are otherwise under agricultural or development pressure. To stop, for example, the alarming decrease in biodiversity, laws and regulations related to land use, use of chemicals, fossil fuel, water etc. have become more stringent. These laws and regulations are also affecting the golf sector.

The development of golf in Sweden, like all rural business activities, must be environmentally sustainable, promoting the construction of high-quality golf courses that ensure a sustainable use of natural resources. The development and implementation of environmental programmes at Swedish golf facilities has been ongoing for many years, helped by the involvement of both internal and external experts. However, the successful implementation of environmental programmes takes time and must be considered an ongoing process (Strandberg, 2004).

The aim of this study was to identify parameters important for implementation of environmental programmes at golf facilities.

Study and Results

The study was carried out at 12 golf facilities in the Stockholm and Uppsala golf districts. One important prerequisite for sustainable development is building of new and productive partnerships, at local, national and international levels, partnerships which include governmental bodies, environmental organisations, universities, and other golf organisations and stakeholders (Palmer et al., 2005). In the Stockholm and Uppsala golf districts this partnership building was guaranteed by involvement of different bodies that could benefit from implementation of environmental programmes at golf facilities. The following bodies were involved: golf facilities, NGO:s (Swedish Society of Nature Conservation and Swedish Society of Cultural Heritage), farmers, regional and local authorities, corporations, universities, high schools,

the golf districts, and the Swedish Golf Federation. The environmental programme was collectively endorsed by all of the bodies involved.

The board at the golf facility or golf club was a key player creating the needed cooperation of bodies and to guarantee a long-term environmental programme. To make the board and its committees and employees realise that they are achieving cost savings through improved management efficiency at the same time as they are improving the environment, they must be involved at an early stage of the environmental work.

Outcomes of environmental programmes at golf facilities were: energy savings, constructions of ponds for amphibians and for cleaning of water, grazing of sheep, best practice in turf management, biotope inventories including management recommendations for the non-playable areas (see Berry, 2005), annual environmental reports to regional and municipal authorities and agencies, and guided nature walks. Seminars and workshops were arranged about relevant environmental laws and regulations; setting up a successful environmental programmes; and on scientific and objective environmental information relevant for the golf sector.

5.0 Strategic Programmes Supporting Federations and Facilities

Golf needs to show practical, on the ground evidence of its environmental stewardship, and this can only come from action within individual golf facilities.

Federations should offer practical advice and guidance to facilities, to help them develop strong environmental programmes.

Federations can also play a part in supporting mechanisms that help to recognise and collate the achievements of the most responsible facilities, through certification schemes.

GEO's view is that environmental advisory support for golf facilities should be separated out from any

certification mechanism, so that Federations can use their resources most effectively to support the proliferation of credible environmental action within member facilities.

Communicating excellence in environmental management is hugely important for the progression of the European golf industry.

It's vital that the sector gets this mechanism right. Certification is the best way to collate and communicate the evidence that golf facilities are responsible environmental stewards.

Over the last 10 years, a number of Federations have established certification or environmental award

schemes for their member facilities. Through this process a great deal has been learned about the requirements placed on federations that operate, administer and promote such schemes.

National Golf Federations should be very careful about the role they play in certification. If the governance, standard setting and verification of such a programme is not independent, the credibility of the entire scheme can be called into question.

Require long term resource input and can restrict the Federation from constructive activities such as raising awareness, educating on key environmental issues, and supporting member facilities with practical advice.

National federations can do a huge amount to raise awareness amongst golf clubs and facilities. They can market a certification programme, ensuring that it becomes a recognised standard.

They can also partner in such a programme, agreeing to work alongside the certification body. In this way the Federations are seen to be a committed force on environmental issues – with no administrative burden.



"Supporting the environmental management of existing golf facilities is perhaps the single most important activity a golf federation can undertake.



Italian Golf Federation



Since the late 1990's, the Italian Golf Federation has been delivering a wide variety of environmental programmes. These have included an environmental management programme, and the associated provision of technical support to member clubs by professional environmental consultants.

Through the Federation's Technical Centre - the Italian School of Turf, and the Environmental Committee - a number of research and guidance projects have been undertaken. These have focussed on priority issues such as pollution prevention, turfgrass management, water conservation, waste management and biodiversity conservation. The School also delivers environmental education programmes for course managers and superintendents.

The Environment Committee run regular awareness raising activities such as workshops, newsletter features, technical articles, dissemination of posters and the Annual "Impegnati Nel Verde" Golf Match.

The Federation are currently striving to apply environmental best practices in the planning, design, construction and management of the Federation's flagship golf development project – a public golf course in Rome.

Benchmarking

The **R&A** launched this free web based service to registered users of bestcourseforgolf.org in April 2008. It provides a means of data capture, analysis and reporting which will enable golf courses to maintain a record of all their relevant information on playing quality, turf quality and course expenditure.

From this pool of information courses will be able to track their progress from year-to-year and monitor trends and changes that occur. Each course will also be able to reference its own information against other similar golf courses using comparative statistics. This is benchmarking in its truest form, with all data secure and anonymous.

Use of this service will bring many benefits in coming years to those managing golf facilities and to the game itself which is under increasing pressure to provide evidence to support its credentials in terms of its performance as a sustainable user of land and its environmental footprint.

The R&A is developing a dual branded service with the Danish Golf Union and hopes that other EGA members will want to investigate this option.

GEO Certification

The **Golf Environment Organisation's** new on-line certification system is currently being tested by pioneer facilities across Europe. The programme, due to be launched in Winter '08, will be centrally administered by GEO, and supported and promoted by a number of National Golf Federations that hope to drive environmental activity amongst their members.

GEO believes there is a win-win-win partnership here between GEO, national golf federations and individual golf facilities; with independent governance and standard setting from GEO, promotion of a highly credible programme from the federations, and simple, wide scale communication of excellent environmental stewardship from individual facilities.



"Benchmarking and GEO Certification are complementary programmes. Together they provide golf facilities with support for, and recognition of environmental excellence.

6.0 Guidance for the Role of National Golf Federations

There are a number of reasons why National Golf Federations should be taking a proactive stance on environmental issues.

Some of these are based on the need to anticipate potential risks or threats to the sector and the playing of the game – such as new regulations and legislation on issues like water, chemicals, waste, carbon emissions etc. In this regard public opinion is very important, and most people do not play or understand golf. considering that most government policy and legislation is based on public opinion, it is therefore important that in going forward, golf communicates its environmental responsibility to the public. Golf needs to do this if it is to benefit from sensitive regulation borne through political support.

However, addressing environmental issues is not just about dealing with potential negative impacts. It is also about embracing sustainability as an opportunity.

Progressive federations can look to accrue political and public support nationally and locally; give your country and individual facilities a marketing advantage and reputation; enhance the golfing experience and playability of courses; and manage and develop facilities more efficiently.

Progressive Federations Can:

Enhance their credibility and reputation

Develop new and productive partnerships

amongst public and government agencies, creating new opportunities for political support and developmental funding. The action (or inaction) of the National Federation greatly affects the way the entire game is perceived in this regard

around environmental issues, further utilising the cross over with social issues. An example would be the promotion of golf as a health enhancing physical activity played within a healthy environment – a direct match between human and environmental well-being

Express a leadership role

in a way that acts as a catalyst to bring golf organisations together. Environmental issues can be a strong unifying theme for diverse organisations

Help to grow the game

Provide guidance and support

Fend off unfair and potentially impacting regulation

environmental concerns are amongst the most significant factors limiting the development and growth of the game, and a concerted national action plan can open up all sorts of opportunities for sustainable development of new facilities.

to member facilities as they address increasingly influential and constantly emerging environmental challenges and opportunities. Many federations who have provided limited advisory support to their members have reported that those services are extremely well valued.

by helping to collate and make available environmental performance data. This may include simple data on water or chemical use on courses, or some small scale studies of ecology on courses can demonstrate the value golf plays in conserving species and habitats of local, national and international interest.



Environmental



In 1996, the Scottish Golf Union established the Scottish Golf Environment Group (SGEG) - a partnership of golfing, environmental and government bodies - coming together to plan and implement a strategy for environmental sustainability in Scottish Golf.

The Group employs two qualified environmental professionals, who provide free advice to Scotland's 600 affiliated clubs. To date, SGEG has undertaken site visits and prepared detailed advisory reports for over 350 clubs.

SGEG also runs an environmental award for clubs that meet the Group's published environmental management criteria, with 36 clubs having received this to date.

6.1 Structuring and Coordinating Activity

As previously stated National Golf Federations can very usefully take a lead on environmental issues, to their own benefit and to the benefit of all parts of the game in that country.

However, environmental sustainability is a shared responsibility, it affects all parts of golf. It is a common denominator. This means that to be addressed effectively and efficiently requires a collaborative approach where a range of golfing organisations, in partnership with environmental and government agencies come together to identify shared aims and objectives, map out an agreed strategy, and then identify who is best placed to deliver the various parts of that cohesive plan. This is a concept the Golf Environment Organisation refers to as *National Golf Environment Partnerships* (NGEP). See Appendix for further details.

GEO has established a very similar mechanism at European level, through it's *Industry Forum*.

Successful environmental programmes in golf facilities also require such a partnership approach, where facility or club officials, green-staff, local government and environmental organisations work together to plan and implement environmental projects on the course and within the facility.

In this way, it is possible for European Golf to develop a hierarchy of connected golf environment partnerships, each playing an important role to ensure international policy, opinion and best practice is filtered downwards through national initiatives to local level, and conversely that local actions (which are the most important part of this hierarchy!) are fed upwards through national initiatives and into an international arena to be shared and promoted.

"environmental sustainability is a common denominator

22



Danish Pesticides Agreement



In June 2005, the Danish Danish Golf Union, the Minister for the Environment, and the National Association of Local Authorities entered into an agreement over the use of plant protection products on golf courses. The goal is to achieve a 100% phase out of pesticides, with a 75% reduction in use, by the end of 2008.

An essential part of the agreement requires clubs to report on their use of pesticides. The clubs are required to hand in annual green accounts to the Danish Golf Union. The agreement includes a number of other conditions: for example, that The Danish Golf Union continuously supports research.

Practical initial steps for Golf Federations:

Establish

the core of a National Golf Environment Partnership (NGEP)

Define

and work through key first tasks

Review

the membership of the partnership

Establish

broad aims and objectives; the scope of issues to be considered

Develop

a funding plan and seek starter funding from main partners

Appoint

a project manager* (full or part time)

Seek

funding support from wider partners**

A project manager could usefully act as a free point of contact advisory source and establish a cluster of pioneer facilities.

Beyond this they could develop longer term strategy, produce guidance and education resources, run conferences and workshops, build partnerships and seek funding support.

Such as other golfing organisations, government agencies, environmental bodies, funding bodies, including charities and trusts.

Taking it to the next level...

Some National Federations are going to great lengths to "bed" environmental sustainability into their operations.

Some ways they are trying to do this include:

- Setting it as a core policy area of the Federation
- Establishing resources and people to work in this field as a core area of Golf Federation operations
- Setting sustainability at the heart of their long term vision for golf in that country
- Proposing a certain level of environmental responsibility as a pre-requisite for membership of the Federation
- Setting standards for new builds that wish to affiliate
- Involving the Federations communications and sponsorship teams

Warning - Beware Green Fatigue!

We can all get tired of environmental issues, of trying to understand the huge range of terminology, of seeking the complex inter-relationships between issues and our activities, of trying (and sometimes failing) to make significant achievements. Remember that environmental sustainability is a long term goal. Yes there is an urgency, but it is not a passing fad. A carefully planned and resourced long-term approach is better than short term attention. Take the inevitable challenges as just that...challenges... and not as insurmountable obstacles.

6.2 Action Areas and Practical Activities



Education

- Host or support local, regional and national environment workshops, training days and conferences
- Produce easy to use guidance, particularly aimed at golf club managers and club committees
- Publish simple awareness raising materials posters, web pages and leaflets directed at golfers
- Support educational programmes aimed at club secretaries, club managers and course managers

NATURELLEMENT GOLF

ffgolf

Golf & Environment EGA

Golf & Environment EGA



Communications

- Regular newsletter articles, drawing on technical specialists from that country
- Web pages devoted to the issue, where news releases, articles and other notable activities can be posted and archived – building up a demonstrable portfolio of action over time;
- Press announcements and news releases;
- Identifying and contacting balanced journalists from press, radio and TV – developing a handful of recognised media partners to help promote the environmental messages;
- Feature environmental issues at Annual General Meetings
- Feature environmental issues at media conferences / annual media briefings

Golf & Environment EGA

New Golf Facility Development

New golf facilities bring opportunities for both environmental enhancement and / or damage. The ability of a new development to enhance the environment and minimise pressure on resources such as water requires careful attention to detail in the siting, planning, design, construction and management phases.

New developments which impact negatively on the environment can damage the reputation of the golf industry in those countries / regions. Golf Federations have a direct stake in how well new developments address environmental and social issues.

In this regard Federations could equip themselves to work with government bodies to define sustainable development policies - in land use planning and also in development control. This issue is directly linked to the growth of the game. If golf is perceived to have inherent negative impacts it will result in fewer proposals being accepted by government. By defining policies and guidance for a more sustainable approach to golf development, Golf Federations can assist in growing the game.



Research & Guidance

Federations can provide funding support for projects that offer guidance on technical issues, e.g. habitat management guides, and other guidance on issues such as water, waste, energy conservation etc. Such projects should ideally be run in partnership with government agencies and other environmental bodies. This is a huge opportunity for golf, as there are many environmental organisations and funding bodies who respond well to considered approaches from the golf sector.

However, care should be taken not to step across into larger scale formal research projects, which should be carried out through specialist golf and environment research facilities, institutes or universities.



Case Studies

The entire golf industry would benefit greatly from the emergence of credible case studies which demonstrate a range of approaches to a range of environmental issues. Golf Federations are uniquely placed to support this work, given their day to day contact with member facilities. They could start by setting out an agenda of issues, against which they would like to develop case studies. A standard template will allow readers to identify consistent approaches and methodologies for dealing with different issues. Case studies can be locally, nationally and internationally promoted to the benefit of the facility and also the National Golf Federation.

" the principle of having a qualified point of contact service is, GEO feels, an important one.

Advisory Support

A number of National Golf Federations currently provide, or subsidise, environmental advisory support to member facilities. Without exception these services are valued, and often heavily over-subscribed. Given the rapidly emerging importance of environmental issues to golf, GEO recommends that all National Golf Federations seek to establish a targeted environmental support service for their member facilities. The exact nature of this will vary from country to country – depending on number of member facilities, climate etc, but the principle of having even a qualified point of contact service is, GEO feels, an important one.





Golf and Environment in the Netherlands

Golf courses are of great importance to the Dutch landscape, both visually and ecologically. The NGF aims to further enhance the environmental value of golf facilities. The reasons for this approach are:

Moral: it is the responsibility of golfers and golf facilities to use and manage the available land in such a way that the next generations will also enjoy the benefit as much as possible.

Customer perspective: people play golf because they like to be active outdoors. The more a golf course is part of a natural environment, the better this need can be addressed.

Financial: in the longer term golf facilities can save money and open doors to funds and subsidies.

Relationship with the authorities: the government as well as the provincial and the local authorities have developed policies in the domains of nature and the environment. The golfing sport would be very wise to link up with these policies.

The NGF vision includes the following objectives:

- More golf clubs will start to implement the Committed to Green environmental management programme.
- to build up and utilise a good relationship with all stakeholders in national golf.





7.0 Conclusions

#1

Take Proactive Action

We can now see that action on environmental issues is key to golf getting the political support and improved public perception it needs in order to fully progress, grow and thrive.

We are also seeing environmental regulation emerging that could cut right to the heart of the game e.g. pesticides and water legislation.

Burying heads in the sand is not a good approach, given that environmental issues are only going to become more and more influential over land management, business, tourism and recreational sectors such as golf.

Work in Partnership

Environmental issues are a common denominator – they affect every part of golf. Addressing them is therefore a shared responsibility. The *Forum* or *Partnership* concept allows every golf stakeholders to participate equally in the development of cohesive strategies.

In this context Federations can take a lead (perhaps by Chairing the *Forum*), but can also work constructively with other golfing bodies. A national golf environment strategy and action plan can be agreed, and then each partner organisation has a particular role to play in its delivery. For example, greenkeeping organisations can motivate and stimulate action amongst their members, the managers and secretaries likewise. Even bodies that initially may appear to not have a significant role to play on environmental issues – e.g. the PGA's, should be in the *Forum*.

Golf & Environment EGA

#3

Invest in the Issue

GEO believes that it is now time for European Golf Federations to put environmental responsibility firmly on their agendas, and to invest in developing a credible portfolio of action in this field. Given the opportunities that such action brings in terms of political support and long term sports development funding, we feel that Federations should set solid core budgets aside for the promotion of environmental sustainability in their sport, in their country.



Undertake Research in Cooperation

Federations are not scientific research based organisations and these activities should be undertaken by the existing research facilities across Europe. Federations should consider providing financial support to a research facility if they are not already doing so, and research programmes they support should address priority environmental issues for that country / region

The Opportunity for Golf

Golf can and should be a leader in social and environmental responsibility

Golf derives great benefit from the ecosystem services nature provides

International acclaim for golf's leaders

Golf facilities will be more efficient and protect their natural capital

Golfers will enjoy golf and life more

"Golf can and should be a leader in social and environmental responsibility.

8.0 Appendix

National Golf Environment Partnerships (NGEPs)

Possible Membership

- National Golf Federation (possibly to Chair)
- National Owners Association
- National Greenkeepers Association
- National Club Managers Association
- National Club Secretaries Association
- National Professional Golfers Association
- National Government Environmental Ministry or Department (most relevant and influential – may vary from country to country, e.g. forestry, biodiversity, water, etc.)
- National Environment Protection Agency
- National Natural Heritage Agency
- National Cultural Heritage Agency
- National Tourism Agency (if relevant)
- Main environmental NGO's and Foundations

- Other government or specialist bodies in key issues (e.g. Carbon or Energy Efficiency Trusts and advisory groups)
- Leading golf / environment research bodies and university departments
- Representatives of educational providers (colleges and universities)
- Selection of technical specialist in priority issues (e.g. water, pollution control, turfgrass management, ecology, carbon management etc.)

Generic Aims and Objectives

Mission

For golf in *country* to play a significant proactive role in environmental sustainability, and to lead the way amongst the land management, leisure and sporting sectors.

Aims

- To improve the environmental sustainability of golf
- To raise widespread awareness of environmental issues across the golfing community
- To promote golf's environmental stewardship

Objectives

- To establish the mechanisms and strategy which enables environmental issues to be dealt with proactively and constructively for the long term;
- To increase the application of environmental best practices in golf facility and course management, and to demonstrate the business benefits;
- To improve environmental standards in golf facility development;
- To communicate effectively on environmental issues, within and out-with the sector;
- To make sure practitioners have access to the most up to date and credible technical information.

Content Jonathan Smith

Design
Benjamin Warren

Case study material Carolyn Hedley, SGU Alfred Touber, NGF Torben Kastrup Petersen, DGU Maria Strandberg, SGF Marc Verneirt, VVG Jerome Paris, FFG Alessandro De Luca, IFG

Additional material Jerry Knox, Cranfield Centre for Water Science

GEO would also like to acknowledge the support of

Steve Isaac, The R&A Erich Steiner, EGA

