

2010 FIFA WORLD CUP™
HOST CITY CAPE TOWN

GREEN GOAL PROGRESS REPORT



SEPTEMBER 2009



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A socially and environmentally responsible event

South Africa aims to host a world-class 2010 FIFA World Cup™, and recognises that an international event of this scale requires major investment and infrastructure development to be a success. Yet the country also recognises that an event cannot be called world-class unless it is hosted in a socially and environmentally responsible manner. This presents unique planning opportunities and challenges.

Host City Cape Town is being transformed by the preparations for 2010. One of the key challenges is to ensure that this transformation leaves a positive legacy, which contributes to the developmental challenges of the city and region, including poverty alleviation, skills development, economic growth and environmental sustainability.



Message from the Executive Mayor of Cape Town

The opportunity to host one of the world's greatest sporting events, the 2010 FIFA World Cup™, is important for the City of Cape Town. We are proud to be one of the nine host cities, and moreover, a semifinal host city — one of the big three. The thrill of hosting some of the world's most famous sporting celebrities and leading soccer teams, and of being the focus of global attention for a month, is growing as the clock counts down.

The hosting of the 2010 FIFA World Cup™ provides an opportunity to enhance the City of Cape Town's globally recognised path to sustainability, to raise public conservation awareness, and put in place a lasting sustainability legacy. In the process, we must look after our region's limited resources, limit our carbon footprint and avoid expedient decisions which may have longterm harmful effects.

Cape Town is recognised as a world destination for hosting major events, and there are undoubtedly considerable socio-economic advantages that accrue to the city as a result. However, we must also not forget that our natural beauty and significant natural resources represent our most important economic asset, and it is critical that we ensure that these major events are organised in a manner that enhances, rather than jeopardises, this asset.

Host City Cape Town — the City of Cape Town and the Western Cape Provincial Government — is committed to making the 2010 FIFA World Cup™ event environmentally and socially sustainable. The Host City Cape Town 2010 FIFA World Cup™ Green Goal Progress Report is a valuable tool to ensure that we deliver a lasting legacy to the citizens of and visitors to Cape Town, through promoting sustainable lifestyles and delivering programmes, projects and products that enhance the enjoyment of our natural assets.

I would like to pay tribute to the role played by the Konrad-Adenauer-Stiftung, whose proactive involvement as both a funder and a partner in our greening programme provided the basis for this report.

Alderman Dan Plato
Executive Mayor of Cape Town



Message from the Premier of the Western Cape

Hosting the 2010 FIFA World Cup™ brings with it the challenge and responsibility to ensure that the event is managed in a way that promotes the principles of environmental sustainability. The event will turn the spotlight on global environmental issues such as climate change, and is an opportunity to promote proactive approaches to these issues among international audiences. Together with Host City Cape Town, the Provincial Government of the Western Cape is therefore committed to reducing climate change impacts and raising awareness of environmental issues, while maximising the opportunity that the event provides.

We have learnt from the programme initiated by the Government of Germany as host for the 2006 FIFA World Cup™, and have developed the 2010 Green Goal programme, thereby setting a precedent for future events, such as the 2014 FIFA World Cup™ to be held in Brazil.

While we realise that greening such a major event presents a significant challenge to a province such as ours, we are also committed to the socio-economic concerns of the people of this city and province. Our Green Goal 2010 programme must leave a positive legacy for all the people of this beautiful region in terms of economic and social development and environmental integrity.

The intentions and learnings set out in this Host City Cape Town 2010 FIFA World Cup™ Green Goal Progress Report cannot be achieved by a few government departments or the 2010 Local Organising Committee and host cities alone, but requires the commitment of all stakeholders, from international governments to FIFA, national teams, sponsors, non-governmental organisations, schools, business, sports clubs and society at large. We have already benefited from a partnership with the Konrad-Adenauer-Stiftung, for which we are extremely grateful.

I ask that we all unite in our efforts to ensure that Host City Cape Town and the Provincial Government of the Western Cape meet their commitments to host a responsible, world-class event in accordance with international best practice, and with a view to leaving a long-term positive legacy for our citizens.

Helen Zille
Premier of the Western Cape



Message from the Konrad-Adenauer-Stiftung (KAS)

Since the beginning of 2007, when the Konrad-Adenauer-Stiftung first entered into discussions with the City of Cape Town and the Western Cape Provincial Government on how best to assist Host City Cape Town with the greening of the 2010 FIFA World Cup™, the political landscape of the Western Cape has changed significantly.

Provincial and national elections took place, and have resulted in new political leadership. However, it is important to note that these changes have not compromised the political commitment at both local and provincial level to green the event and to continue the work that had been done up until then.

On the contrary, the Green Goal initiative by Host City Cape Town has enjoyed growing support over the past years, be it from the political leadership, from business, civil society, academia or the media. It is this joint effort, irrespective of party-political affiliation or orientation, that is the success story behind this initiative.

The first series of five workshops that the Konrad-Adenauer-Stiftung hosted in partnership with Sustainable Energy Africa for the City of Cape Town and the Western Cape Provincial Government took place over the period August 2007—March 2008, and led to the generation of the 2010 FIFA World Cup™ Host City Cape Town Green Goal Action Plan, which included 41 Green Goal projects.

During the first half of 2009, three more workshops followed. The aim of the second workshop series was to monitor and ensure the timely implementation of the 41 Green Goal 2010 projects.

This report provides an overview of the status and progress of Host City Cape Town's Green Goal projects. It shares success stories, but also highlights obstacles and hurdles, some of a financial nature, that still need to be overcome.

The importance of such a document cannot be overemphasised, since it will assist host cities of future World Cups to tap into the vast pool of experience, expertise and networks that has been generated in Host City Cape Town over the past years.

Dr Werner Böhler
The Konrad-Adenauer-Stiftung



Sport is a vehicle for capturing the public's attention, and therefore can be important for helping to change public attitudes.

The legacy and knowledge gained from one major event can become the minimum standard for future events so that learning curves can become less steep, and even further progress can be encouraged. Replication, adaptation, and innovation are the touchstones for initiating a long-term cycle of continuous environmental improvement. There is no reason why any major public event, from its planning to execution, should not be sustainably green.

Tom Roper 2006

LIST OF ABBREVIATIONS/ACRONYMS

BMS	Building Management System
CBD	central business district
CBO	Community based organisation
CEMP	Construction Environmental Management Plan
CFL	compact fluorescent lamp
CO ²	carbon dioxide
CoCT	City of Cape Town
CPUT	Cape Peninsula University of Technology
CTICC	Cape Town International Convention Centre
CTRU	Cape Town Routes Unlimited
CTT	Cape Town Tourism
DANIDA	Danish International Development Agency
DEAT	Department of Environmental Affairs and Tourism (now DEA)
DEADP	Department of Environmental Affairs and Development Planning (WC)
DEFRA	UK Department for environment, food and rural affairs
DOT	Department of Transport
DEA	Department of Environmental Affairs (formerly DEAT)
DWAF	Department of Water Affairs and Forestry (now split into DEA and Department of Agriculture, Forestry and Fisheries)
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Plan
EMS	Environmental Management System
FCC	FIFA Confederations Cup
FIFA	Fédération Internationale de Football Association
GHG	greenhouse gas
GPP	Green Point Park
HCA	Host City Agreement
HCTOP	Host City Transport Operations Plan
I&AP	interested and affected party
IRT	integrated rapid transit
IWMP	Integrated Waste Management Plan
KAS	Konrad-Adenauer-Stiftung
LED	light-emitting diode
LOC	2010 FIFA World Cup™ Local Organising Committee
NGO	non-governmental organisation
NMT	non-motorised transport
NORAD	Norwegian Agency for Development Cooperation
PGWC	Provincial Government of the Western Cape
PRASA	Passenger Rail Agency of South Africa
PV	photovoltaic
PVA(s)	public viewing area(s)
ROD	Record of Decision
SAFA	South African Football Association
SAPIA	South African Petroleum Industry Association
SEA	Sustainable Energy Africa
tCO ₂ e	tonnes of carbon dioxide equivalent
TREC	tradable renewable energy certificate
UCT	University of Cape Town
UEMP	Urban Environmental Management Programme
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VSTS	venue-specific training site
WSSD	World Summit on Sustainable Development

EXECUTIVE SUMMARY

Background to hosting a responsible 2010 FIFA World Cup™ event

Host City Cape Town has proudly committed to building the partnerships and co-ordinated network of actions that would ensure that Team Cape Town and the Western Cape scores green in 2010. Branded as Green Goal 2010, Host City Cape Town's 2010 greening programme will contribute to raising awareness, minimising waste, diversifying and using energy efficiently, consuming water sparingly, compensating for the event's carbon footprint, practising responsible tourism, and constructing infrastructure with future generations in mind. These greening initiatives look beyond the actual time frame of the 2010 FIFA World Cup™, and include concerns for post-event environmental, social and economic impacts on the immediate and extended environment. Host City Cape Town is not only committed to being environmentally responsible, but must ensure that social concerns are addressed at the same time, and that the Green Goal 2010 programme leaves a positive legacy for all the people of this region.

The approach followed by Host City Cape Town Green Goal 2010 is significantly different from that of Germany 2006. In Germany, the Iko Institute, an independent environmental consulting firm appointed by the government, played a leading role in the greening of 2006. In South Africa, the host cities play a far greater role, with the Local Organising Committee being responsible for the coordination of greening efforts, supported by the Department of Environmental Affairs.

The 2010 FIFA World Cup™ offers the Host City Cape Town a unique opportunity to demonstrate to the world its commitment to responsible environmental management, whilst improving the living environment and livelihoods of its people. It is also an opportunity to sensitise the local and international football community and fans to environmental issues.



Host City Cape Town launched its Green Goal 2010 Action Plan on 17 October 2008. The Action Plan was informed by a series of workshops sponsored by the Konrad-Adenauer-Stiftung between August 2007 and April 2008, bringing together a range of stakeholders, non-governmental organisations, business, civil society, the media, Department of Environmental Affairs and Tourism, the 2010 Local Organising Committee, the City of Cape Town and the Provincial Government. A further three workshops were held in the first half of 2009 to discuss issues relating to the implementation of the projects.

Project summary

This report documents the significant progress made by Host City Cape Town in terms of the event greening programme. Close to three quarters of the 41 Green Goal projects are already under way, with the remaining projects about to reach the implementation phase. In the process, many lessons have been learnt, not least of which is that greening cannot be an add-on initiative of the 2010 FIFA World Cup™, but must be a key component, fully incorporated into the event planning process. This will secure a long-term foundation for environmental concerns in national and international football.

What follows is a summary of the 41 Green Goal projects, as documented in the Host City Cape Town 2010 FIFA World Cup™ Green Goal Action Plan.

Target area	Project	Leader	Team members	Green Goal budget	Status
1. Energy and climate change <i>Minimise the carbon footprint of the 2010 event</i>	Determine the carbon footprint of the 2010 event	CoCT	PGWC Econ P yry	CoCT: R148 500	Carbon footprint estimated
	Identify and implement carbon mitigation project(s) in Cape Town/Western Cape	CoCT/ PGWC	KAS DANIDA	KAS: R100 000 DANIDA: R7 million	Carbon mitigation projects identified and funding secured
	Install energy-efficient technologies in stadia and training venues, and at fan fest and PVAs	CoCT/ PGWC		Included in existing capital and operating budgets	Installation of energy-efficient technologies under way in Green Point Stadium, Athlone Stadium and Philippi Stadium
2. Water conservation <i>Minimise the use of potable water, and promote conservation of water resources</i>	Identify alternative sources of water for irrigation of Green Point Common	CoCT	PGWC	CoCT: Feasibility study: R200 000 Implementation: R10 million	Feasibility study completed Construction under way
	Installation of water-saving devices in the stadia and training venues	CoCT/ PGWC		Included in existing capital and operating budgets	Installation of water-saving devices under way in Green Point Stadium, Athlone Stadium and Philippi Stadium

Target area	Project	Leader	Team members	Green Goal budget	Status
3. Integrated waste management <i>Reduce, re-use and recycle waste</i>	Operational waste minimisation in stadia, fan fest, PVAs and training venues in the run-up to and during the event	CoCT	PGWC	CoCT: R180 000 in addition to existing capital and operating budgets	Ongoing
	Green Goal branding of recycling bins and waste minimisation signage	CoCT	PGWC	CoCT: R400 000	Awaiting final design from LOC
	Recycling drop-off centres in the CBD and Atlantic Seaboard	CoCT	PGWC	CoCT: R40 000 in addition to R1,14 million from existing capital and operating budgets	Construction under way
4. Transport, mobility and access <i>Promote energy efficient and universally accessible mobility, and minimise air pollution</i>	Development of bicycle and pedestrian facilities	CoCT	PGWC	CoCT: R30 000 in addition to R183 million included in CoCT, PGWC and DOT budgets	Construction under way
	Development of public transport infrastructure	CoCT/PGWC		CoCT: R30 000 in addition to R1,76 billion included in CoCT, PGWC and DOT budgets	Construction under way
	CBD bicycle services	PGWC	CoCT	CoCT: R40 000	Scoping under way
	Ecotaxis	PGWC	CoCT/SAPIA	CoCT: R35 000 SAPIA: 25 000	Scoping under way
	Indigenous gardening training programme for Green Point Urban Park staff	CoCT	PGWC	CoCT: R100 000	Not yet started
5. Landscaping and biodiversity <i>Promote indigenous landscaping and enhance biodiversity</i>	Biodiversity showcase garden at Green Point Park	CoCT	PGWC	CoCT: R350 000 in addition to existing capital budget for construction of the GPP	Construction under way
	Student landscape design competition for Mouille Point beachfront and promenade	CoCT	PGWC CPUT UCT OVP Landscape Architects	CoCT: R20 000	Completed
	City beautification and tree-planting campaign	CoCT	PGWC	CoCT: R5,2 million in addition to existing capital and operating budgets	Implementation under way



Target area	Project	Leader	Team members	Green Goal budget	Status
6. Green building and sustainable lifestyles <i>Promote environmental awareness, sustainable lifestyles and environmentally efficient building practices</i>	ECO Centre in the GPP	CoCT	PGWC	CoCT: R275 000 DANIDA: R190 000 R35 million still required for construction of ECO centre	Business plan and conceptual design completed
	Undertake and monitor green review for Green Point and Athlone stadia	CoCT	PGWC	DANIDA R508 704	Review completed Monitoring included in existing Green Point Stadium CEMP external audit protocol
	Cape Town Green Map	CoCT	PGWC A & C Maps Urban Sprout CTT	CoCT: R515 000	Green Map has been launched online. Printed map is being developed
	2010 Green Goal volunteer training module	CoCT	PGWC UCT	CoCT: R76 000	Under way
	Green Goal soccer club competition	CoCT	PGWC	CoCT: R100 000 Potential FIFA sponsor opportunity	Not yet started
	Soccer and environment educational poster and guide	CoCT	PGWC	CoCT: R448 000 DANIDA: R52 213	Poster and guide completed. Educational programme to be implemented between January and June 2010
	Green Goal short films	CoCT	PGWC	CoCT: R200 000 DANIDA: R22 000 KAS: R20 000	5 min DVD developed Ongoing updates as required
	Anti-littering and waste recycling campaign	CoCT	PGWC	CoCT: R300 000	Planning under way
	Drink tap water campaign	CoCT	PGWC	CoCT: R270 000	Planning under way
	Green procurement for 2010 events	CoCT	PGWC	CoCT: R50 000	Green procurement integrated with all 2010 event tenders
Greening of 2010 events	CoCT	PGWC	CoCT: R650 00	Ongoing	

Target area	Project	Leader	Team members	Green Goal budget	Status
7. Responsible tourism <i>Promote responsible tourism for 2010 and beyond</i>	Code of responsible conduct for visitors	CoCT	PGWC CTT	CoCT: R250 000 in addition to existing CTT tourism budget	Code developed. Roll-out planning under way
	Responsible tourism awareness and training	CTT	CoCT PGWC CTT	CoCT: R150 000 in addition to existing CTT budget	Training integrated with existing CTT service excellence programme
	Environmental accreditation system for accommodation sector: GreenStaySA	PGWC	CoCT SEA CTT CTRU	British High Commission and United Kingdom Department for Environment, Food and Rural Affairs: R1,372 million	Accreditation system developed and online Training ongoing
8. Green Goal communication <i>Communicate the message of Green Goal to residents and visitors</i>	Green Goal workshop series 1 and 2	CoCT	PGWC KAS SEA	CoCT: R25 000 KAS: R822 000	Workshop series 1 and 2 completed
	Green Goal brand development and activation	CoCT	PGWC	CoCT: R50 000	Awaiting launch of national Green Goal 2010 brand
	Briefing for potential Green Goal funders	CoCT	PGWC	CoCT: R0	To date, no briefing was required
	Green Goal marketing and communications plan and roll-out	CoCT	PGWC	CoCT: R255 000	Ongoing
	Green Goal ambassadors	CoCT	PGWC	CoCT: R40 000	Awaiting appointment of national Green Goal ambassador(s)
	Green Goal website and online resources	CoCT	PGWC	Included in existing website maintenance budget	Green Goal website developed
	Online press resources and materials	CoCT	PGWC	Included in existing media budgets	Ongoing media resources developed
	Green Goal 2010 exhibition	CoCT	PGWC	CoCT: R150 000	Green Goal integrated with 2010 exhibitions
	Green Goal 2010 awards	CoCT	PGWC	CoCT: R120 000	Impumelelo 2010 Sustainability Award launched
	9. Monitoring, measurement and reporting <i>Monitor, measure and report on progress with the implementation of Green Goal</i>	Procedures and methodologies	CoCT	PGWC	Included in existing project management methodologies
Targets and baseline studies		CoCT	PGWC	CoCT R148 000	Baseline study completed
Annual reports and legacy report				CoCT: R148 000 KAS: To be confirmed SAPPI R40 000	Green Goal progress report compiled



Financial status

Host City Cape Town has allocated just over R6 million in direct funding to implement the Green Goal Action Plan, in addition to capital and operational budgets for the implementation of large infrastructure projects that support the greening programme. Grant funding in excess of R8 million has been leveraged from this investment.

The following projects still require donor funding:



Project	Funding required	Project outcomes
Identify and implement carbon offset project(s) in Cape Town/Western Cape	R25 million (R7 million already received from DANIDA)	Direct reduction in the net carbon footprint of the event; one of the major means of achieving the energy and climate change goals of Green Goal 2010
Identify alternative sources of water for irrigation of Green Point Common	R15 million (CoCT has committed R10 million, and the project is proceeding)	The construction of the irrigation infrastructure to ensure that potable water is not used, and that surface water resources are conserved. Further investment is required in the cultural heritage component of the project to realise the full potential of this project as a showcase of civic hydrology
ECO Centre in the Green Point Park	R35 million (DANIDA has funded the compilation of a business plan, and the CoCT has commissioned initial architectural designs)	Construction of the ECO Centre in the GPP. The centre will be an important showcase, resource and catalyst for residents and visitors to understand conceptually and at a practical, step-by-step level how they can reduce their carbon footprint; one of the primary ways that the 2010 events will have a sustained transformative impact on the lifestyle choices of the region's residents

Lessons learnt

From project implementation undertaken to date, key lessons include the following:

- ¥ Greening cannot be a nice-to-have add-on programme, but must be a key component of hosting a major event.
- ¥ Proper planning and co-ordination is essential; event greening needs to be fully integrated with the event-planning process from the start, and should be integrated with FIFA's requirements for hosting the event.
- ¥ An appropriate budget needs to be provided for greening initiatives.
- ¥ A political champion is essential in order to secure funding and buy-in.
- ¥ The early appointment of a Green Goal co-ordinator is fundamental.
- ¥ Sound partnerships with NGOs, business and foundations are critical.
- ¥ Regular consultation with and involvement of key stakeholders is very important.
- ¥ Establish the baseline (status quo) for measuring different parameters.
- ¥ Appoint green ambassadors (locally and internationally) to help spread the message.
- ¥ Look beyond the tournament, and ensure a long-term legacy.

Next steps

While the greening programme is progressing well, additional funding is required to deliver on key environmental legacy projects. Further partnerships must be formed to enable the delivery of a full-scale greening effort.

The following are therefore seen as important next steps:

- ¥ Active engagement with donors and other funders to secure the necessary funds for legacy project implementation
- ¥ Prioritisation of resources within Host City Cape Town to implement the 2010 greening programme effectively

Overall, the Host City Cape Town greening programme is impressive, and is comparable with international standards. The momentum must be sustained, and focus must now be on maximising the leverage and legacy opportunities that the 2010 FIFA World Cup™ presents.

4. INTRODUCTION AND BACKGROUND

4.1 Event greening – setting the scene

Sport and the environment were scarcely regarded as common bedfellows, until recently. Over the past decade, this relationship has rightly been promoted with ever-increasing vigour by major sporting codes, global organisations and national, regional and local governments.

Throughout the world, major sporting events are now recognised as having a global environmental impact. Large numbers of spectators travel to and from these events, spend money, consume resources and generate waste. Food, water and energy consumption rises significantly. These impacts raise concerns about the total environmental footprint of such events, particularly with respect to carbon, water, waste and transport.

This concern must be translated into responsible action to minimise and mitigate the impacts, and build awareness among host communities and visitors about why it is necessary to reduce the impact of these events on the environment. Event greening is therefore about contemplating the environmental and social consequences of the choices made when hosting large events.

The HCA between FIFA, the LOC and the CoCT, signed in March 2006, includes the following commitment to environmental protection:

6.7 Environmental Protection

The Host City undertakes to carry out its obligations and activities under this Agreement in a manner which embraces the concept of sustainable development that complies with applicable environmental legislation and serves to promote the protection of the environment. In particular, the concept of sustainable development shall include concerns for post-competition use of stadia and other facilities and infrastructure.

Greening the 2010 FIFA World Cup™ in South Africa has its roots in the successful greening of the Olympic Games (Sydney 2000, Torino 2006 and Beijing 2008, and preparations for Vancouver 2010 and London 2012), the Commonwealth Games (Melbourne 2006) and the WSSD (Johannesburg 2002).

The Green Goal initiative at the 2006 FIFA World Cup™ represented the first time in the history of football that environmental considerations were placed at the forefront of activities. This initiative reduced the overall environmental impact of the event, including the GHG contribution. This was achieved through, among other things, implementing energy-efficiency measures, using renewable energy sources and environmentally friendly transportation.

Greening of the 2010 FIFA World Cup™ entails the incorporation of sustainable development principles into the planning, execution, reporting and monitoring of the



event. FIFA has appointed SAFA as the member association with the responsibility to organise, stage and host the 2010 FIFA World Cup™ in South Africa. SAFA has delegated all of its obligations to organise, stage and host the competition to the LOC. In terms of the greening of the 2010 FIFA World Cup™, the LOC is working in partnership with DEA and the host cities.

The LOC's responsibilities are among other things to establish the overall greening approach for 2010, including minimum environmental standards and targets, guiding the greening of FIFA activities and events, and supporting host cities with greening activities and monitoring. The LOC has established the 2010 Environmental Forum, which reports to the LOC Legacy Committee, a subcommittee of the LOC Board. The members of the forum include host city representatives, including representatives from Host City Cape Town, relevant government departments and NGOs.

As the mandated custodian of environmental management nationally, DEA's broad roles and responsibilities in relation to the 2010 greening programme are to provide overall leadership and coherence to the wide range of localised greening initiatives currently under way, including the driving of the carbon offset programme at a national and international level, and mobilising resources and funding to support and implement provincial and local plans.

Host City Cape Town is responsible for establishing a greening strategy and action plan to enable the implementation of the minimum environmental standards, coordinating key role players at host city level to ensure implementation of the action plan, and supporting the operator of the stadium with the implementation of greening activities.

The 2010 FIFA World Cup™ has therefore both a foundation and a springboard from which to implement the Green Goal programme for 2010. The event offers South Africa a unique opportunity to demonstrate to the world the country's commitment to responsible environmental management that improves living conditions and livelihoods for South Africa's people. The event also offers important opportunities to showcase how the country can respond to the environmental challenges of hosting the 2010 FIFA World Cup™, and importantly, what solutions are put in place to ensure both short-term and long-term environmental legacies.

4.2 Compelling case for a sustainable event

The 2010 FIFA World Cup™ provides Host City Cape Town with the opportunity to consider its developmental priorities. With increased levels of citizen participation in and media attention on all World Cup-related activities, the event's impact on the environment and on the health of the population and the surrounding ecosystems has become an ever more popular topic of discussion.

Environmental issues that may have been taken for granted in the past have now become major concerns, and Capetonians and residents of the Western Cape appreciate the impact of these challenges on their quality of life. Several of these issues, including public transport, energy and carbon emissions, and enhanced environmental performance of the new stadium and accommodation establishments, have attracted media coverage, and have helped to raise large-scale public awareness.

The 2010 FIFA World Cup™ accelerated efforts to improve environmental quality and provide new perspectives on environmental protection. The authorities in Cape Town and the Western Cape had plans in place to reduce, reuse and recycle waste, promote energy-efficient and universally accessible mobility, minimise air pollution, promote indigenous landscaping, and enhance biodiversity, whilst promoting responsible tourism and creating environmental awareness. However, the World Cup added impetus to enable the aggressive implementation of these plans.

4.3 Purpose of this report

This document is a progress report on the status of the Green Goal 2010 programme, including the projects being implemented by Host City Cape Town to incorporate environmental sustainability into the 2010 FIFA World Cup™. Green Goal 2010 aims to mitigate the event's impact on the environment, and to provide a long-lasting environmental legacy for residents and visitors.

The 2010 FIFA World Cup™ Host City Cape Town Green Goal Action Plan, published in October 2008, identified nine target areas, and defined 41 specific implementable projects linked to these target areas. Each project was defined in terms of measurable targets, indicators, key milestones, dates and funding requirements. This report monitors these projects against the targets and milestones, and highlights any hurdles or gaps in implementation so that corrective steps can be taken ahead of the 2010 FIFA World Cup™.

The report also documents the lessons learnt in the process, all of which would be useful to serve as further encouragement to the greening efforts of those involved currently and those planning future FIFA World Cup™.

Finally, the report documents the process by which the Host City Cape Town Green Goal programme has been developed and implemented, including the Green Goal 2010 workshop series, in particular the second series, the composition and functioning of the Host City Cape Town environmental workstream, and the link with the LOC Environmental Forum.



Greening 2010 is about considering the environmental, economic and social consequences of the choices we make in hosting the event:

- ¥ How can we minimise the negative impacts, and offset them through mitigation strategies to correct imbalances?
- ¥ Who benefits from wise environmental choices, and who suffers the negative impacts?
- ¥ What legacies will we leave behind?
- ¥ What will be the trade-off between short-term higher capital costs and longer-term savings?

4.4 Who is the report's target audience?

The following parties are directly affected by the document:

- ¥ **Host City Cape Town:** To note specific actions that are still necessary for greening the 2010 event, as well as associated budget implications and time frames.
- ¥ **Other host cities, the LOC and DEA:** To note Host City Cape Town's greening progress, and to receive guidance to comply with and promote criteria necessary for South Africa to host a responsible event.
- ¥ **FIFA and future World Cup hosts:** To note the challenges and lessons learnt in hosting responsible World Cup events in future.
- ¥ **Business and funding agencies:** To note Host City Cape Town's greening progress and opportunities for providing possible support.
- ¥ **Civil society, including NGOs and CBOs:** To note Host City Cape Town's greening progress and for continued involvement.

Case study*

Environmental compliance: The development of Green Point Stadium and Common

An EIA was required in terms of the regulations of the then Environmental Conservation Act for the proposed new stadium, the construction of Granger Bay Boulevard, the upgrade of associated electrical infrastructure, and the establishment of an urban park on Green Point Common. An independent consultant was commissioned to conduct the EIA process, including public participation.

A scoping report was released in June 2006 and, together with the plan of study for the assessment phase, was accepted by the DEADP. Thereafter, the assessment phase of the EIA process was initiated, and the results culminated in a draft EIR, which was distributed to stakeholders and I&APs for comment. The report was modified to address the comments received, and served as the finalisation of the assessment phase of the EIA.

The EIA identified and assessed the many impacts that a facility of this size could have on the environment.

The main impacts that were identified included the following:

- ¥ Visual impact
- ¥ Noise impacts during events, especially concerts
- ¥ Traffic noise, congestion and parking problems during events
- ¥ Waste and litter after events
- ¥ Heritage impacts
- ¥ Social and economic impacts

Specialist studies were commissioned where required.

The impacts were quantified and rated, and measures were evaluated to reduce the negative impacts. The EIA also evaluated the future sustainability of the stadium.

The environmental ROD was issued by the DEADP on 31 October 2006, and the subsequent ruling on appeals against the ROD followed on 5 January 2007.

The ROD required that a CEMP be implemented during construction. In addition, an operational EMS had to be developed for the operation of the stadium and Green Point Common.

The approved CEMP is implemented for all contracts related to the redevelopment of Green Point Common. Quarterly external audits are undertaken, and reports submitted to DEADP. A framework EMS is currently being developed for Green Point Stadium, the GPP and the sport precinct. Detailed EMPs must be developed by each of the leaseholders, with regular reporting to the CoCT and DEADP.



5. HOST CITY CAPE TOWN GREEN GOAL 2010 PROGRAMME

5.1 The first Green Goal 2010 workshop series

In October 2006, the CoCT produced a business plan defining a list of high-level principles and outcomes that would be the focus of Host City Cape Town's greening of the 2010 FIFA World Cup™.

The main objectives of the implementation of the greening programme in Cape Town and the Western Cape are:

- ¥ the greening of the 2010 FIFA World Cup™ event footprint; and
- ¥ leaving a positive environmental legacy.

The business plan was comprehensive and ambitious, but there was clearly a need to translate it into an action-orientated process and action plan that would extend to 2010 and beyond.

Between August 2007 and March 2008, the CoCT, PGWC and SEA, together with project partners and funders KAS, organised a series of five Green Goal 2010 workshops and two discussion forums. The workshops were attended by national, provincial and local government, NGOs, business, media, the LOC, international experts, and civil society. The primary objective of the workshop series was to inform and guide the compilation of the 2010 FIFA World Cup™ Host City Cape Town Green Goal Action Plan, and to select a range of projects that would form the basis of the Host City's greening effort.

The Green Goal 2010 planning workshops were as follows:

Workshop 1: Green Goal principles and priorities	24 August 2007
Workshop 2: Green building, the stadium, biodiversity and landscaping	10 September 2007
Workshop 3: Responsible tourism	5 November 2007
Discussion forum 1: Carbon offsetting for 2010	12 December 2007
Workshop 4: Integrated waste management	13 February 2008
Discussion forum 2: The urban park on Green Point Common	18 February 2008
Workshop 5: Painting the town green: Using Green Goal 2010 to persuade residents, visitors and the FIFA family to adopt greener lifestyles	11 March 2008

One of the challenges facing the Green Goal 2010 team was narrowing down the list of potential project ideas submitted at the workshops.

The following criteria were used to select the Green Goal 2010 projects:

- ¥ Potential to provide long-term benefits to residents of the city and the province, in particular to less-advantaged groups
- ¥ Level of completion: projects that were either scoped or already under way
- ¥ Visibility: projects that were visible and able to capture the imagination of residents and visitors
- ¥ Duration of project, and financial feasibility: projects that could be undertaken and completed within the available time and budget parameters
- ¥ Impact on global warming: the implementation of carbon mitigation projects that reduce energy consumption and carbon emissions

The Green Goal Action Plan by Host City Cape Town for the 2010 FIFA World Cup™ was then published, based on the outcomes of the workshops and the earlier business plan.



5.2 Host City Cape Town Green Goal Action Plan

The 2010 FIFA World Cup™ Host City Cape Town Green Goal Action Plan identified a total of 41 projects across nine target areas to achieve the objectives of the greening programme. The greening intervention target areas are as follows:

1. Energy and climate change
Minimise the carbon footprint of the 2010 event
2. Water conservation
Minimise the use of potable water, and promote conservation of water resources
3. Integrated waste management
Reduce, reuse and recycle waste
4. Transport, mobility and access
Promote energy-efficient and universally accessible mobility, and minimise air pollution
5. Landscaping and biodiversity
Promote indigenous landscaping, and enhance biodiversity
6. Green building and sustainable lifestyles
Promote environmental awareness, sustainable lifestyles and environmentally efficient building practices
7. Responsible tourism
Promote responsible tourism for 2010 and beyond
8. Green Goal communications
Communicate the message of Green Goal to residents and visitors
9. Monitoring, measurement and reporting
Monitor, measure and report on progress with the implementation of Green Goal.

The 2010 FIFA World Cup™ Host City Cape Town Green Goal Action Plan was launched by the Executive Mayor of Cape Town and the Premier of the Western Cape at a function for 300 guests on 17 October 2008. Both leaders expressed their support for the 2010 greening programme, and their commitment to work together on this and other programmes to host a successful 2010 FIFA World Cup™.



6. GREEN GOAL 2010: FROM PLANNING TO IMPLEMENTATION

6.1 The second Green Goal 2010 workshop series

As the Host City Cape Town Green Goal programme moved from planning to implementation, opportunities were identified for the ongoing involvement of KAS as a key 2010 Host City Cape Town Green Goal Contributor. This resulted in a second series of three Green Goal 2010 workshops in the first half of 2009, directed at project implementation and monitoring. The aim of these workshops was to fine-tune a number of key projects identified during the first workshop series, and to develop strategies to raise additional funding, keep stakeholder groups informed of progress with respect to project implementation, and to strengthen the relationship between the CoCT and PGWC and external stakeholders and partners even further.

The second series of Green Goal 2010 workshops were as follows:

Workshop 1: Scoping, planning and implementing the carbon offsetting action plan for Host City Cape Town	23 February 2009
Workshop 2: The proposed ECO Centre on GPP	27 March 2009
Workshop 3: Taking responsibility for tourism during the 2010 FIFA World Cup™	20 April 2009

At the first of these workshops, participants identified and agreed on a short list of carbon offsetting projects for implementation, and formulated an initial action plan towards hosting a low-carbon event in Cape Town. The second workshop aimed to inform participants about the GPP — a 2010 legacy project adjacent to the new Green Point Stadium — and the proposed ECO Centre and its activities. At the third workshop, participants engaged on the status of the projects promoting responsible tourism in the Green Goal 2010 Host City Cape Town Action Plan, and contributed towards the formulation of the 2010 FIFA World Cup™ Responsible Tourism Declaration by Host City Cape Town.

Each workshop consisted of a full day of information exchange in the form of presentations and brainstorming sessions. Venues varied, and were selected according to management's commitment to improved environmental performance. Participants included technical experts, organisations (governmental, private and NGOs, both South African and international) as well as, in a broader sense, the residents of Cape Town and the Western Cape.

Detailed reports were produced after each workshop. Where relevant, these are referenced in the section describing detailed project plans.

At the launch of the Host City Cape Town Green Goal Action Plan, both the Executive Mayor and the Premier committed the CoCT and PGWC to Green Goal 2010.

Former Executive Mayor Helen Zille said:

"I alluded to the fact that we have travelled a long road, but need to emphasise the length of the journey ahead and the importance of keeping focused, if we are to realise the ambitious goals which have been set to substantially enhance Cape Town's green legacy. It is as well to reflect that the hosting of the 2010 World Cup provides an opportunity to enhance the City of Cape Town's committed and globally recognised path to sustainability, to raise public (and visitor) conservation consciousness and set in place infrastructure and processes which can deliver a lasting sustainability legacy. The Green Goal Action Plan by Host City Cape Town for the 2010 FIFA World Cup™ provides us with a valuable tool to ensure that we can deliver a lasting legacy without negatively impacting on our current resources."

In her address, then Premier Lynne Brown elaborated on each of the nine target areas. In relation to energy and climate change, she said:

"Given that South Africa and Host City Cape Town would be receiving the FIFA family and World Cup fans from long-haul destinations from around the globe, the carbon footprint is expected to be considerably larger than in the case of Germany. It is therefore important to somehow determine the extent of the carbon footprint on Host City Cape Town and the Western Cape and then find ways to offset or mitigate this footprint. There is a huge opportunity to offset the carbon footprint of this event through the investment in offset projects that affect our most vulnerable communities. Carbon offset projects have the potential to make a meaningful contribution to the lives of these communities."

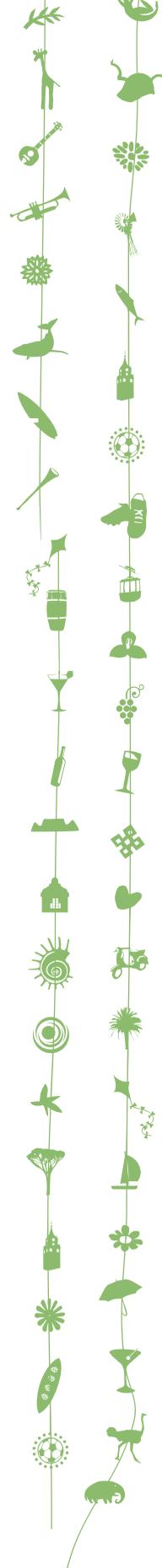
The 41 projects are being implemented through a range of channels. In some cases, projects link up with existing initiatives either being undertaken by the CoCT, PGWC or National Government in preparation for 2010. In other cases, the CoCT or PGWC has made specific budget allocations for Green Goal 2010 project implementation.

Certain projects are being implemented via partnerships with donors, business, NGOs, civil society and government.

7. PROJECT STATUS

7.1 PROJECTS AT A GLANCE

Target area	Projects	Leader	Team members	Green Goal budget	Status
1. Energy and climate change Minimise the carbon footprint of the 2010 event	Determine the carbon footprint of the 2010 event	CoCT	PGWC Econ P yry	CoCT: R148 500	Carbon footprint estimated
	Identify and implement carbon mitigation project(s) in Cape Town/Western Cape	CoCT/ PGWC	KAS DANIDA	KAS: R100 000 DANIDA: R7 000 000	Carbon mitigation projects identified and funding secured
	Install energy efficient technologies in stadia and training venues, and at fan parks and PVAs	CoCT/ PGWC		Included in existing capital and operating budgets	Installation of energy-efficient technologies under way in Green Point Stadium, Athlone Stadium and Philippi Stadium
2. Water conservation Minimise the use of potable water and promote conservation of water resources	Identify alternative sources of water for irrigation of Green Point Common	CoCT	PGWC	CoCT: Feasibility study: R200 000 Implementation: R10 000 000	Feasibility study completed Construction under way
	Installation of water-saving devices in the stadia and training venues	CoCT / PGWC		Included in existing capital and operating budgets	Installation of water-saving devices under way in Green Point Stadium, Athlone Stadium and Philippi Stadium
3. Integrated waste management Reduce, re-use and recycle waste	Operational waste minimisation in stadium, fan fest, PVAs and training venues in the run-up and during the event.	CoCT	PGWC	CoCT: R180 000 in addition to existing capital and operational budgets	Ongoing
	Green Goal branding of recycling bins and waste minimisation signage	CoCT	PGWC	CoCT: R400 000	Awaiting final design from LOC
	Recycling drop-off centres in the CBD and Atlantic Seaboard	CoCT	PGWC	CoCT: R40 000 in addition to R1,14 million from existing capital and operating budgets	Construction under way
4. Transport, mobility and access Promote energy efficient and universally accessible mobility and minimise air pollution	Development of bicycle and pedestrian facilities	CoCT	PGWC	CoCT: R30 000 in addition to R183 million included in CoCT, PGWC and DOT budgets	Construction under way
	Development of public transport infrastructure	CoCT/ PGWC		CoCT: R30 000 in addition to R1,76 billion included in CoCT, PGWC and DOT budgets	Construction under way
	CBD bicycle services	PGWC	CoCT	CoCT: R40 000	Scoping under way
	Ecotaxis	PGWC	CoCT SAPIA	CoCT: R35 000 SAPIA: R25 000	Scoping under way
5. Landscaping and biodiversity Promote indigenous landscaping and enhance biodiversity	Indigenous gardening training programme for Green Point Urban Park staff	CoCT	PGWC	CoCT: R100 000	Not yet started



Target area	Projects	Leader	Team members	Green Goal budget	Status
	Biodiversity showcase garden at Green Point Urban Park	CoCT	PGWC	CoCT: R350 000 in addition to existing capital budget for construction of the GPP	Construction under way
	Student landscape design competition for Mouille Point beachfront and promenade	CoCT	PGWC CPUT UCT OVP Landscape Architects	CoCT: R20 000	Completed
	City beautification and tree-planting campaign	CoCT	PGWC	CoCT: R5,2 million in addition to existing capital and operating budgets	Implementation under way
6. Green building and sustainable lifestyles Promote environmental awareness, sustainable lifestyles and environmentally efficient building practices	ECO Centre in the GPP	CoCT	PGWC	CoCT: R275 000 DANIDA: R190 000 R35 000 000 still required for construction of ECO Centre	Business plan and conceptual design completed
	Undertake and monitor green review for Green Point and Athlone stadia	CoCT	PGWC	DANIDA: R508 704	Review completed Monitoring included in existing Green Point Stadium CEMP external audit protocol
	Cape Town Green Map	CoCT	PGWC A&C Maps Urban Sprout CTT	CoCT: R515 000	Green Map has been launched online Printed map is being developed
	2010 Green Goal volunteer training module	CoCT	PGWC UCT	CoCT: R76 000	Completed
	Green Goal soccer club competition	CoCT	PGWC	CoCT: R100 000 Potential FIFA sponsor opportunity	Not yet started
	Soccer and environment educational poster and guide	CoCT	PGWC	CoCT: R448 000 DANIDA: R52 213	Poster and guide completed Educational programme to be implemented between January and June 2010
	Green Goal short films	CoCT	PGWC	CoCT: R200 000 DANIDA: R22 000 KAS: R20 000	5 min DVD developed Ongoing updates, as required
	Anti-littering and waste recycling campaign	CoCT	PGWC	CoCT: R300 000 in addition to existing communications budgets	Planning under way
	Drink tap water campaign	CoCT	PGWC	CoCT: R270 000	Planning under way
	Green procurement for 2010 events	CoCT	PGWC	CoCT: R50 000	Green procurement integrated with all 2010 event tenders
	Greening of 2010 events	CoCT	PGWC	CoCT: R650 000	Ongoing

7.2 Project progress by thematic area

1. Energy efficiency and climate change

A key overarching aim of Host City Cape Town's Green Goal effort is to ensure that the 2010 FIFA World Cup™ is a **low-carbon event**. This specifically relates to ensuring low climate change impact through the reduction of GHG emissions. Where GHG emissions cannot be avoided, they will be mitigated through a range of Green Goal 2010 carbon mitigation projects. Hosting a low-carbon event, and reducing its carbon footprint, can be achieved through integrating energy efficiency, waste reduction and avoidance, and water conservation with all activities related to the event.

The objective of the **carbon mitigation programme** is to compensate for unavoidable GHG emissions, such as activities related to transport (ground and air travel) and accommodation. Such compensation can be achieved through the purchase of TRECs, or capital investment in climate protection projects.

The projects

- 1.1 Determine the carbon footprint of the 2010 event
- 1.2 Identify and implement carbon mitigation project(s) in Cape Town/Western Cape
- 1.3 Install energy-efficient technologies in stadia and training venues, and at fan fest and PVAs

Project progress

1.1 Determine the carbon footprint of the 2010 event

In 2008, DEAT together with the local UNDP office initiated a process to design, mobilise resources for, and implement a plan of action to make the 2010 FIFA World Cup™ a carbon-neutral event. UNDP developed the terms of reference for the overall carbon-neutral programme, which highlighted the particular importance of offsetting transport-related GHG emissions from the 2010 FIFA World Cup™.

Simultaneously, the Norwegian Embassy in Pretoria together with NORAD partnered with DEAT to conduct a feasibility study for achieving a carbon-neutral 2010 FIFA World Cup™. International consulting firm Econ P yry was commissioned to conduct the feasibility study and prepare recommendations.

The purpose of the Econ P yry study was to:

- estimate the carbon footprint of the 2010 FIFA World Cup™;
- identify measures to reduce the carbon emissions associated with the event;
- propose an institutional regime for carbon offsets.

The study concluded that the estimated carbon footprint of the 2010 FIFA World Cup™ is more than 896 000 tCO₂e, with an additional 1 856 000 tCO₂e contributed by international



travel. The former value is more than eight times the estimated footprint of the 2006 FIFA World Cup™ in Germany, which was stated as 100 000 tonnes in the Green Goal Legacy Report published by the German LOC. Reasons for the significantly higher footprint include the lack of high-speed rail links in South Africa, which means that most visitors will fly multiple times between matches, which in turn leads to much higher transport emissions. Passenger car use will also be higher. Although major efforts are being made to upgrade public transport options, the reality is that much of this travel will still be in passenger cars or small buses, rather than light rail as in Germany. Other reasons include the construction of five new stadia (with embedded carbon from their construction) and the fact that South Africa is a more GHG-intensive economy than many European countries, with electricity being generated from coal instead of renewable energy sources, which gives rise to higher CO₂ emissions.

In 2009, the CoCT commissioned Econ P yry to undertake a more detailed study of Host City Cape Town's carbon footprint, including the FIFA fan fest, PVAs and the hosting of the final draw in Cape Town in December 2009. The study concluded that Host City Cape Town's contribution to the national footprint is approximately 150 000 tCO₂e, or 17%. An additional 30 000 tonnes of CO₂ will result from the increased event footprint beyond the competition in the stadium.

It was estimated that it would cost between \$6,8 and \$12 million to offset South Africa's domestic carbon footprint of the 2010 FIFA World Cup™. To date, funding for offsetting the domestic footprint has not been secured, and it is unlikely that sufficient funding will be raised before the event.

Host City Cape Town is therefore following the lead of London (host of the 2012 Summer Olympic Games), rather aiming to host a low-carbon event as opposed to a carbon-neutral event. The focus is no longer on developing new projects to offset carbon emissions; rather it is on seeking long-term energy efficiency within existing projects as Host City Cape Town prepares to host the competition.

1.2 Identify and implement carbon mitigation project(s) in Cape Town/Western Cape

In January 2009, the Royal Danish Embassy and DANIDA announced that it had allocated R7 million to the CoCT and PGWC to mitigate carbon emissions emanating from the hosting of the 2010 FIFA World Cup™. A KAS-sponsored carbon

workshop was convened by Host City Cape Town in February 2009 to review potential projects that could be implemented with this grant.

Seven projects were subsequently approved for funding. They are as follows:

- Installation of additional lighting control in Green Point Stadium (recommendation from green review of Green Point Stadium)
- Retrofitting of streetlights along protocol routes with low-energy luminaires (CoCT Energy and Climate Change Strategy priority)
- Retrofitting of traffic lights along protocol routes with LED lights (CoCT Energy and Climate Change Strategy priority)
- Installation of a hydroelectric turbine to generate electricity from spring water in the GPP (awareness-raising opportunity)
- Retrofitting of a Council-owned building with energy-efficiency measures (extension of existing project)
- Installation of energy-efficient floodlights and electricity submeters at Philippi Stadium
- Solar water heaters for low-income households (extension of existing project).

Business plans have been developed for each project and implementation commenced in August 2009 for completion by December 2010.

1.3 Install energy-efficient technologies in stadia and training venues, and at fan fest and PVAs

The environmental ROD, issued by the DEADP on 31 October 2006, and the subsequent ruling on appeals against the ROD on 5 January 2007, called for a number of energy-efficiency interventions to be included in the design of the new stadium. These include the following:

- ¥ Energy-efficient lighting and automatic switches and sensors
- ¥ Energy-efficient heating, ventilation and cooling systems (including minimal pipe runs and heat exchange)
- ¥ Insulation of hot-water pipes
- ¥ Maximum use of daylight

The ruling on the appeal recommended that the CoCT, in consultation with PGWC and National Government, consider the possibility of using renewable energy sources in the stadium precinct and Green Point Urban Park. The following energy-efficiency measures were included in the Green Point Stadium design:

- The building is raked outward to shade itself, while a mesh fabric cladding allows 30% light filtration. The fabric allows for natural ventilation, while the white colour reduces thermal radiation.
- The translucent glass roof facilitates natural lighting.
- The open concourse at podium level facilitates natural ventilation, and the 5 meter gap between the inner and outer skins of the facade provides for passive ventilation through a stack effect.



- A water-cooled variable refrigerant-volume cooling system is used for air conditioning. This system presents significant energy savings over individual air-conditioning modules.
- CFLs are used where possible.
- Where halogens are used, they are 45% more efficient than the standard fittings.
- A BMS allows for control and monitoring of air conditioning and lights in different areas.
- CO² monitors in the parking garage control the ventilation fans.

The stadium professional team conducted a detailed feasibility study to scope the installation of PV systems on the roof of Green Point Stadium. The study concluded that, although this was technically possible, it was not financially feasible within the given budget provisions.

Lessons learnt on energy efficiency and climate change projects

The hosting of a carbon-neutral event in a developing country such as South Africa is a daunting and expensive undertaking. The lack of public transport infrastructure and renewable energy contributes to a significant increase in the carbon footprint compared to events in countries where this infrastructure is in place. In addition, South Africa is a long-haul destination, and international air travel increases the event's carbon footprint. Visitors' expected length of stay in rented accommodation is also projected to be longer, thereby further increasing the carbon footprint.

In developing its offset projects, Green Goal 2006 in Germany excluded any carbon emissions associated with international air travel to the event, as it maintained that travel outside of Germany lay beyond the scope of the German LOC's mandate. Yet, international air travel is by far the highest source of World Cup-related carbon emissions.

The workshop on carbon offsetting convened by Host City Cape Town in February 2009 to scope potential carbon mitigation/offset projects, identified the following lessons:

- ¥ For projects to influence awareness and behaviour, they must be implemented (or at least partially implemented) by 2010. Therefore, the process should start at least two years before the event.

- ¥ An upfront commitment to fund the offsets is needed — one cannot rely on voluntary contributions during the event.
- ¥ Projects may initially need South African government funding.
- ¥ National Government needs to approach FIFA for carbon offset funding. This should happen early on in the process.
- ¥ Use a well-established and recognised international standard, such as the Clean Development Mechanism (CDM), Gold Standard (GS) or Voluntary Carbon Standard (VCS), as it will provide credibility and integrity to the programme as well as keep overhead costs lower than when creating a homegrown standard.
- ¥ While National Government should play a strong oversight role in the carbon offset programme, the implementation of the programme should be outsourced to a carbon offset provider using a reputable voluntary carbon market standard (such as GS, CDM or VCS).
- ¥ Consider the geographic location of offsets: Should they be in all provinces? Should they be in South Africa only, or should they be expanded to the Southern African Development Community as well? Given the extent of the carbon footprint and the imperative for an African legacy from the event, it makes sense to invest in carbon offset projects in more than one country.
- ¥ Consider project scale, as this is important for transaction costs. There is merit in doing a few large, development-oriented projects (such as energy-efficient low-cost housing).

Significant financial resources are required to offset carbon emissions through sustainable projects. In the South African context, it is therefore more feasible to aim for a low-carbon event, focusing on measures to reduce energy requirements and increasing the share of public transport to reduce carbon emissions. Grant funding available from the Danish Government and DANIDA has acknowledged this constraint, and host cities will use the grant to invest in projects that will result in long-term energy savings as opposed to carbon offsetting.

Key references and source material

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- ¥ Sustainable Energy Africa and Steadfast Greening. July 2008. Green Goal 2010: Guidelines, Standards and Business Plan for Greening 2010 FIFA World Cup” (Cape Town). Commissioned by Local Organising Committee (LOC). (Unpublished).
- ¥ Urban Environmental Management Programme and Green by Design WSP, 2008. 2010 FIFA World Cup” Green Point Stadium: Environmental Performance Enhanced. (Pretoria, South Africa). Commissioned by Department of Environmental Affairs and Tourism, funded by the Royal Danish Embassy, South Africa.



Philippi Stadium receives energy-efficient floodlights

Philippi Stadium, one of the proposed VSTs for 2010, is currently being upgraded to comply with FIFA requirements for training facilities.

Improvements include new spectator stands to increase capacity, the provision of media facilities, and improvements to stadium infrastructure, such as the installation of turnstiles. A new pitch that complies with FIFA requirements is also being installed.

Due to budget constraints, the initial plan was to refurbish the existing inefficient floodlights, and supplement them with similar floodlights for other stadia. However, the carbon mitigation grant from DANIDA has made it possible for PGWC to install modern energy-efficient floodlights at the Philippi Stadium as part of the 2010 carbon mitigation strategy.

It is anticipated that the energy saving will be as much as 60% per annum, resulting in an energy cost saving of R10 000 per annum. The payback period on the energy-efficient lights is around seven to eight years at 24 games per annum, with the lifespan of the lighting estimated to be more than 15 years with regular maintenance.

Also, the new scheme reduces the amount of mercury in the lamps by 65% compared to the original equipment. A smaller generator can also now be specified, if required, cutting capital costs and diesel consumption by around 50%.

2. Water conservation

Water conservation and water demand management should be implemented through efficient technologies and behavioural changes. The aim is to **reduce water consumption**, specifically **potable** (drinking) and groundwater, through the use of efficient fixtures, controlled irrigation and public awareness.

The use of **rainwater and greywater** is encouraged wherever possible, as well as the **protection of water resources** through the use of environmentally friendly products to clean stadia and maintain pitches. In creating new construction surfaces, the use of **permeable materials** for pitches and walkways has also been promoted.

The projects

- 2.1 Identify alternative sources of water for irrigation of Green Point Common
- 2.2 Installation of water-saving devices in stadia and training venues

Project progress

2.1 Identify alternative sources of water for irrigation of Green Point Common

During the conceptual design phase of the Green Point Common redevelopment, the issue of alternative water sources for irrigation of this 69 hectare open space was highlighted. In 2008, the CoCT commissioned Arcus Gibb to undertake a feasibility study of alternative water sources for irrigation as opposed to the use of potable water, which had been used previously. The study investigated among other things desalination, feasibility of boreholes, greywater treatment, rainwater harvesting and the harvesting of spring water from the slopes of Table Mountain. The study concluded that the harvesting of spring water from the Oranjezicht Springs was the most cost-effective way to reduce the use of potable water for the irrigation of the Common. The spring water is not potable, and will require treatment to meet drinking water standards.

The history of Cape Town's establishment as a trading post and refreshment station is directly linked to this source of fresh water from the slopes of the mountain. Over time, the spring water was canalised, and today it is mostly conveyed underground in a series of pipes and stormwater drains, eventually draining into Table Bay. The harvesting of this water for irrigation purposes presents a significant opportunity to elevate the role that water played in the history of Cape Town. The Reclaim Camissa project is working to restore the historical connection between the mountain and the sea, and develop heritage and tourist resources throughout the CBD linked to the springs and rivers on the slopes of the mountain.



Water from Oranjezicht Springs to irrigate Green Point Common

The analysis of alternative sources of irrigation water for Green Point Common, and a comparison of the yields, costs and secondary benefits related to the different options, show that the project making use of water from the Oranjezicht Springs is financially attractive (a third of the cost of using potable water), is sustainable, and will meet the objective of providing irrigation water to Green Point Common for the benefit of all.

This makes water provision to Green Point Common from this historical source, whilst functioning in parallel with the vision of the Oranjezicht Heritage Society, a seemingly win-win solution. Water from the Oranjezicht Springs was the original supply that facilitated the establishment of Cape Town as a replenishment station for shipping in 1652. The use of this spring was formalised in 1682, with a chamber to protect the Main Spring built in 1813. This now presents an opportunity not only to make practical use of this source of water, but also to expand the heritage fabric and tourism potential of Cape Town, as has been highlighted by Caron von Zeil and Colleen Stoltzman of the Oranjezicht Heritage Society.

Arcus Gibb, August 2008. Preliminary Investigation Report — Feasibility Study: the Supply of Irrigation Water to Green Point Common.

2.2 Installation of water-saving devices in stadia and training venues

The environmental ROD issued by the DEADP on 31 October 2006, and the subsequent ruling on appeals against the ROD on 5 January 2007, called for a number of water-efficiency measures to be incorporated into the design of Green Point Stadium. These include the following:

- ¥ Water-efficient fittings on showers, taps and toilets (multi-flush rather than dual flush)
- ¥ Water-wise landscaping
- ¥ Rainwater harvesting and storage for irrigation and toilet flushing

The following water-efficiency measures were subsequently included in the design of Green Point Stadium:

- Toilets in the special guest areas are fitted with dual-flush mechanisms.
- All taps have self-closing metering valves and aerators, and low-flow showerheads have been fitted.
- The landscaping design favours water-wise, indigenous plants.
- Rainwater and stormwater harvested off the stadium roof, pitch, podium surface and park is directed to a detention pond for reuse for irrigation.
- A natural soccer pitch with artificial matting was specified to help reduce the need for irrigation.

Lessons learnt on water conservation projects

The Western Cape is a water-scarce region, and projections show that pressure on water sources, in particular potable water, will increase as temperatures rise due to climate change. The use of potable water for irrigation has long been questioned by water specialists, and projects that reuse greywater or stormwater are generally welcomed.

In light of this, a project to redirect spring water that is currently not harvested, for irrigation of Green Point Common makes a positive contribution to the Common's sustainability. The water will also be used to create ponds in the GPP and the metropolitan golf course, which will create opportunities for new habitats and wetlands to be established, recreating some of the seasonal vlei environments that had characterised Green Point Common before it was developed into the sport precinct that we know today.

The initiatives to reduce the amount of potable water used in the new Green Point Stadium further contribute to a reduction in the use and wastage of potable water. An independent panel of green architects appointed by DEAT recognised the technologies used as best practice in sustainable stadia design.



Key references and source material

- ¥ Arcus Gibb, August, 2008. Preliminary Investigation Report — Feasibility Study: the Supply of Irrigation Water to Green Point Common. Reference number R030800196. (Cape Town, South Africa). Commissioned by the City of Cape Town.
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3. Integrated waste management

Integrated waste management is required to ensure **waste prevention, minimisation and reduction** at source from the outset of the event. Unavoidable waste that is generated as a result of the event will be reused or recycled wherever possible, or, as a last resort, will be disposed of in an appropriate and environmentally responsible manner.

Waste minimisation and prevention measures and programmes, such as the procurement of environmentally-friendly designed, dematerialised, reusable and recyclable goods, will be implemented at all the traditional waste generation sources. **Packaging-free and/or supplier-based take-back systems** need to be implemented wherever possible to reduce waste. Waste generation and the volumes of waste-to-landfill will be reduced compared to current levels (excluding any waste minimisation intervention).

Recycling is promoted to enable a reduction in landfill disposal through a national, standardised **two-bin collection system** for recyclable and non-recyclable items. Further downstream, the sorting and recovery of recyclables and the composting of suitable organic components will ensure optimal recovery of appropriate waste types.

The projects

- 3.1 Operational waste minimisation in stadia, fan fest, PVAs and training venues in the run-up to and during the event
- 3.2 Green Goal branding of recycling bins and waste minimisation signage
- 3.3 Recycling drop-off centres in the CBD and Atlantic Seaboard

Project progress

3.1 Operational waste minimisation in stadia, fan fest, PVAs and training venues in the run-up to and during the event

3.2 Green Goal branding of recycling bins and waste minimisation signage

Host City Cape Town's IWMP is far advanced. Cleansing and waste management plans have been scoped for each event venue, and additional equipment and labour resources are being procured to augment the current service.

The LOC has set a target of 20% for recycling/diversion of waste from landfill sites for the 2010 FIFA World Cup". Host City Cape Town has in turn set this as a target for the operators of Green Point Stadium and FIFA fan fest; this target will also apply to the operation of the PVAs and fan jols. All operators are required to introduce measures to avoid, minimise and recycle waste.

The best way to save scarce landfill space is to avoid waste in the first place. The 2006 Green Goal initiative in Germany showed that waste avoidance at a large sports event such as the FIFA World Cup" is possible.



Practical examples of waste avoidance include the following:

- ¥ Invest in reusable crockery and cutlery rather than disposable cutlery and tableware.
- ¥ Use reusable plastic crates instead of single-use cardboard boxes.
- ¥ Do not allow promotional handouts at the entrance gates to stadia and fan fests.
- ¥ Beer and soft drinks are to be served from draught and soda fountains, thereby avoiding spent glass and plastic bottles and cans that must be removed from event venues and disposed of by host cities.
- ¥ Promote the use of reusable, commemorative cups (cup concept) instead of single-use cups for beer and soft drinks.
- ¥ Use large dispensers instead of single servings of sugar and condiments.
- ¥ Limit packaging of merchandise sold at the stadia and fanfests.

If waste cannot be avoided, measures should be taken to minimise waste or use packaging and materials that can easily be recycled. Examples include the following:

- ¥ Minimise packaging of food sold at kiosks, and give preference to cardboard and paper products that decompose quickly.
- ¥ Separate wet and dry waste at source. Clear labelling of waste receptacles will encourage fans to separate waste themselves, reducing the cost of sorting and recycling post-consumer waste.
- ¥ Compost organic waste, such as grass clippings and leaves.
- ¥ Restrict the use of glass containers in public areas to reduce the risk of injury to the public.

The CoCT will be rolling out a split-bin system for wet and dry waste in certain identified areas in the CBD of Cape Town before the 2010 FIFA World Cup". The CoCT has also obtained the sole rights to relaunch the character Zibi for its public awareness campaign for this and other initiatives.

The two-bin system will also be in place at Green Point Stadium, fan fests, PVAs and fan jols. Appropriate signage is being developed by Host City Cape Town and the LOC to promote waste separation at these venues.

3.3 Recycling drop-off centres in the CBD and Atlantic Seaboard

The CoCT is investing in two multi-use mini-recycling facilities (drop-off centres), one in the CBD and one on the Atlantic Seaboard, where recyclable waste from the 2010 FIFA World Cup™ can be received, sorted and dispatched. After the event, the centres will be open to the public and waste contractors to drop off recyclables. The mini-facilities will be augmented by the use of transfer stations, where bulk sorting will be facilitated.

Lessons learnt on integrated waste management projects

The achievement of the waste objective in Germany in 2006 was attributed to the organisers' ability to control catering areas in the stadia, including the use of returnable beakers (drinking cups) for both soft drinks and alcoholic beverages. The beakers were also used in 75% of the host cities' open-air events, such as the fan parks, broadcasting arenas, etc. The final resultant impact was that waste was reduced by just over 17%, or about 305 tonnes, against the 20% target. The target was deemed to have been achieved, as the reduction and recycling took into account waste outside the stadia (such as the erection and dismantling of temporary structures) that had not initially been part of the target.

It is critical to note that effective implementation of waste reduction and recycling at host city level is highly dependent on active support from DEA, the LOC, FIFA and FIFA partners, and official affiliates and suppliers, as much of what happens in and around the stadia, such as the introduction of reusable cups, types of packaging allowed, etc, is governed by these organisations.

Key references and source material

- ¥ Department of Environmental Affairs and Tourism 2008. National Greening 2010 Framework. 24 July 2008. Tshwane.
- ¥ FIFA Local Organising Committee, 2008. Minimum Environmental Standards for Green Goal 2010. Unpublished.
- ¥ Germany 2006. Green Goal Legacy Report 2006 FIFA World Cup™, Frankfurt.
- ¥ Local Organising Committee proposal for bin stickers in stadia and fan fests for Confederations Cup and World Cup. E-mail of 5 May 2009.
- ¥ Ozinsky, S, Ackermann, K., and Lamb, S. January 2009. Green Point Park and ECO Centre Business Plan. (Cape Town, South Africa). Commissioned by City of Cape Town.



4. Transport, mobility and access

Transport planning activities should be focused on the avoidance of unnecessary travel, and **feasible and safe alternatives to the private vehicle**. Operational plans should include strategies to minimise travel needs related to the event and host city activities.

Public transport should account for as large a portion as possible of all travel to stadia, and should be integrated with park-and-ride facilities. Suitable **NMT** infrastructure, including walkways, pedestrian crossings, appropriate surfacing, sufficient lighting, etc, should be in place around the stadia to encourage walking to events.

All official vehicles as well as public transport vehicles purchased as part of the public transport upgrades should meet the most appropriate standards for fuel efficiency and CO₂ emissions.

The projects

- 4.1 Development of bicycle and pedestrian facilities
- 4.2 Development of public transport infrastructure
- 4.3 CBD bicycle services
- 4.4 Ecotaxis

Project progress

- 4.1 Development of bicycle and pedestrian facilities
- 4.2 Development of public transport infrastructure
- 4.3 CBD bicycle services

The 2010 FIFA World Cup™ has been a catalyst for significant investment in public transport and NMT facilities in Cape Town. Phase 1a of the CoCT's new IRT system will be operational by June 2010, and, together with rail, will form the backbone of the public transport system for the World Cup event.

Phase 1a of the IRT system includes an airport shuttle and match-day shuttle services between the stadium and the main transport hub in Hertzog Boulevard. New IRT trunk stations are being constructed at Cape Town International Airport, Hertzog Boulevard and Green Point Stadium.

Investment in infrastructure by the CoCT and PRASA will enable legacy improvements to at least 15 stations to promote rail-based park-and-ride during the World Cup event. Additional parking, security and lighting will be in place at these stations, and station facilities are being upgraded as part of the project.

Cape Town Station is also undergoing a major refurbishment, which is on track to be completed by December 2009.

It is anticipated that the IRT system and the additional rail services on match days will assist Host City Cape Town to meet the LOC target of 50% of fans to travel to the 2010 stadia by public transport.

In addition to the investment in bus and rail public transport,



new pedestrian and bicycle lanes are being constructed in the city. A new pedestrian and cycle route between the CBD and Green Point Stadium will see Waterkant Street between Burg Street and Buitengracht pedestrianised ahead of the event, and the sidewalk of Somerset Road widened to accommodate a bicycle lane and additional footway. This will be the official fan walk between the CBD and Green Point Stadium during the 2010 FIFA World Cup™ in Cape Town.

Two new pedestrian bridges are being constructed over Buitengracht, one at the intersection with Waterkant Street and the other at North Wharf Square, to provide a safe crossing for pedestrians over this busy route.

A new bicycle route and pedestrian walkway, a requirement of the ROD, is being constructed through the stadium precinct and around Green Point Common. This new route will link up with existing bicycle and pedestrian routes along the Mouille Point and Sea Point promenades, as well as via the fan walk to the CBD.

The establishment of a bicycle rental service to complement the IRT system is currently being scoped. A number of international models are being investigated, including systems operational in Paris, Barcelona and Amsterdam. The systems all rely on customers registering to use the service, and will require the construction of additional bicycle lanes as part of the long-term NMT strategy for Cape Town.

Mobility for persons with disabilities is a high priority for the 2010 FIFA World Cup™. Special measures and operational services are included in the HCTOP to provide transport for this market. The new IRT stations are wheelchair-friendly, and additional measures are included in the rail station upgrade project to improve services to persons with disabilities. Special match-day shuttles will be available to take mobility-impaired persons as close to the stadium precinct as possible, with negotiations under way to allow these shuttles to enter the stadium.

Lessons learnt on bicycle and pedestrian facilities, development of public transport infrastructure and CBD bicycle services

It is a major challenge to develop a safe and reliable public transport system for an event of the magnitude of the World Cup — more so in Cape Town, where the share of public transport as a transport mode has been declining in recent years. It is expected that the new IRT system and investment in the upgrade of rail infrastructure in preparation for the 2010 FIFA World Cup™ will play a major role to reverse this trend.

An efficient public transport system is not only required for the safe transportation of fans, but also to contribute significantly to lower the carbon footprint of the event. Transport already accounts for 50% of Cape Town's energy use. New public transport and NMT infrastructure will assist to reduce this over time. To put it in perspective, compared to single-occupant private vehicles, fans will consume a tenth of the energy by taking the train, and about a quarter taking a bus.

The scoping of a bicycle rental service in Cape Town is an exciting addition to the IRT project planning. New bicycle lanes are already being constructed alongside IRT lanes on certain routes, and a bicycle rental service has the potential to integrate seamlessly with the IRT, particularly in the CBD. Challenges with regard to the provision of infrastructure, road safety and theft must be addressed, but other cities have shown that public awareness and a good monitoring system can overcome these. In addition, the private sector has identified a niche for the provision of bicycle rickshaw services in Cape Town. It is anticipated that these services will also increase once the IRT is fully operational in the CBD.

4.4 Ecotaxis

The original intention had been to facilitate the establishment of a fleet of low-emission, energy-efficient, ecofriendly metered taxis operating in the CBD for 2010 and beyond. These taxis are already available in many cities, including London, Dublin, Auckland and Taipei. Ecotaxis have low fuel consumption and energy-efficient technology, thereby reducing emissions that harm the environment.

After engagement with various stakeholders involved in the authorisation of metered taxi services in the Western Cape, it however became clear that Government does not have a mandate to create an ecofriendly taxi service. The Provincial Taxi Council grants licences to private operators/drivers after consultation with local government and existing operators. The system is demand-driven, responding to requests from the private sector, rather than supply-driven, whereby licences are offered to those who qualify.

The focus of this project has now shifted to the development of an ecodriving training module for metered-taxi drivers in Cape Town. PGWC has partnered with SAPIA to develop a training module that could be included in the compulsory professional driver training course offered to metered-taxi drivers. As part of a pilot project, 20 drivers will be trained and their ecodriving monitored. Based on the outcome of the pilot project, PGWC will request the new course contents to be accredited as a module of the professional driver unit standard. In support of this project, the CoCT will promote ecodriving as part of its campaigns to raise awareness and reduce carbon emissions in annual Transport Month in October.



Lessons learnt on ecotaxis project

It became clear from various engagements with authorities responsible for overseeing taxis that this is a very complex industry with many role players and issues to consider. In addition, in recent years, the industry has become more regulated, and roles and responsibilities are more clearly defined.

The original proposal to offer new permits for ecotaxis cannot be accommodated within the current legislative mandate of provincial and local government. Government responds to an application from the private sector, and is not in a position to offer licences based on certain criteria, such as the environmental features of the vehicle. In fact, it was pointed out that there are no emission standards for metered taxis operating in South Africa. The only criteria for the vehicles is that they must be roadworthy. The permit is issued to the operator/driver, not to the vehicle, which allows old vehicles with high potential for carbon emissions to operate alongside new vehicles with better emission profiles. It was decided that PGWC will be raising this issue with DOT, and will request a review of the policy, and the incorporation of emission standards into the permitting process.

The focus has now shifted to the training of taxi drivers in ecodriving principles. SAPIA, an active member of the City's Vehicle Emissions Working Group and Provincial Air Quality Management Team, has offered to sponsor the development of an ecodriving training module, to be included in the unit standards for a professional driver permit. This initiative again highlights the value of partnerships as a catalyst for behavioural change. PGWC will roll out the training to 20 drivers as part of a pilot programme. Based on the outcome of the pilot, PGWC will request that this course become part of its official programme to improve the skills of metered-taxi drivers in the province.

Key references and source material

- ¥ City of Cape Town. November 2008. Host City Transport Operations Plan Version 3.
- ¥ City of Cape Town. June 2009. Cape Town's Integrated Rapid Transit System brochure.
- ¥ Sustainable Energy Africa. April 2009. A Green Goal 2010 Workshop: Taking responsibility for tourism during the 2010 FIFA World Cup" (Cape Town).

5. Landscaping and biodiversity

The activities associated with the World Cup event **should not impact negatively on biodiversity** or the natural environment. Stadia and host cities should promote the use of **indigenous vegetation in landscaping** in and around key venues. **City beautification projects** linked to the event, such as tree-planting and urban regeneration projects, are to be encouraged. **Urban greening** and rehabilitation of disturbed habitats, as well as the protection of important and sensitive urban ecosystems and areas serving as biodiversity corridors linked to the event, should be promoted. Raising awareness about the natural and built heritage of Host City Cape Town/the country/the region is critical. It is hoped that the event's legacy will include sustainable job creation related to biodiversity conservation.

The projects

- 5.1 Indigenous gardening training programme for Green Point Urban Park staff
- 5.2 Biodiversity showcase garden at Green Point Urban Park
- 5.3 Student landscape design competition for Mouille Point beachfront and promenade
- 5.4 City beautification and tree-planting campaign

Project progress

- 5.1 Indigenous gardening training programme for Green Point Urban Park staff
- 5.2 Biodiversity showcase garden at Green Point Urban Park

The GPP adjacent to Green Point Stadium will be a new public park open to residents and visitors. The park is being developed according to ecological principles, with energy and water efficiency, multi-purpose spaces and indigenous landscaping incorporated into the design.

A section of the GPP is earmarked for the development of a biodiversity showcase garden of indigenous, water-wise plants that display the region's biodiversity, and demonstrate responsible environmental gardening/horticultural practices. A specialist consultant trained in botany and horticulture, and experienced in the development of interpretive signage, will be contracted to work with the GPP's landscape architects to develop the garden.

The biodiversity showcase garden has been selected as one of the CoCT's Local Action for Biodiversity projects, and will also be one of the focus areas of the CoCT's campaign to promote biodiversity awareness during 2010, International Year of Biodiversity.

In lieu of a training programme for landscapers, the service provider will provide hands-on training to the landscape contractors responsible for maintaining the garden for a period of two years after completion of the project.

Lessons learnt on indigenous gardening training programme and biodiversity showcase garden

It is fortunate that the biodiversity showcase garden can be established at the same time as the remainder of the GPP.



The garden can integrate with the series of wetlands and water ponds being established, and interpretive signage can be designed to integrate with the directional signage in the park. Although arrangements have been made to oversee the ongoing maintenance of the park for a period of at least 18 months, it will be beneficial if the garden can be overseen by staff associated with the proposed ECO Centre in the park.

5.3 Student landscape design competition for Mouille Point beachfront and promenade

A competition was launched in April 2008 for landscape design and architectural students from UCT and CPUT to show how they would transform the Mouille Point beachfront and promenade, located along the main protocol route leading to Green Point Stadium, ahead of 2010. The brief required the students to create a safe, spacious and aesthetically pleasing inner-city recreational area, allowing for a diversity of uses. The students were also required to include 2010 Green Goal principles, such as biodiversity, green building, mobility, efficient water use, and waste minimisation and recycling, in their designs.

The submissions were reviewed by a panel of judges, including representatives from the CoCT, PGWC, CPUT, OVP Landscape Architects, and the Cape Town Partnership. The winners were announced on 8 May 2008, with Scott Masson (UCT) and Marica Fick (CPUT) winning the top prizes.

The upgrade of Mouille Point beachfront has been delayed due to urgent repairs that had to be carried out to stabilise the sea wall after it had been badly damaged in a series of winter storms. The work is nearing completion, and the detailed design of the landscape upgrade, informed by the students' submissions, is under way. The upgrade of the promenade will commence after the World Cup event in 2010.

Lessons learnt on student landscape design competition

The Mouille Point student landscape design competition was the first 2010 Green Goal project to be completed. At the time, it was important to show that the Green Goal programme was on track, and that it was contributing to the greening of the 2010 FIFA World Cup™ in Cape Town. The competition increased the media profile of the 2010 Green Goal programme, and focused politicians and senior officials' attention.

The students' designs were of a very high standard, and have informed the brief for the detailed design of the Mouille Point promenade upgrade.

The role that interns can play to advance individual Green Goal projects was highlighted. Interns working in the CoCT Environmental and Resource Management Department compiled the background documents, workshoped the details with the students, arranged the judging, and organised the launch function. The project provided the interns with valuable work experience and skills in project management, communications and events management.

5.4 City beautification and tree-planting campaign

The image and appearance of Cape Town and the Western Cape during the 2010 FIFA World Cup™ will be the city and region's business card, not only for fans visiting Cape Town, but also for the millions of people around the world following the tournament on television. By signing the HCA, Host City Cape Town agreed to render the city as attractive as possible for the 2010 FIFA World Cup™. City beautification relates to enhancing the visual appeal of the city, and includes the screening of construction sites visible from event locations, and limiting construction works in key event areas.

The 2010 city beautification programme therefore aims to meet the following goals:

- ¥ Improvement and maintenance of existing assets
- ¥ Investment in beautification of previously undeveloped areas
- ¥ Creating a vibrant and exciting atmosphere in the city ahead of the 2010 FIFA World Cup™
- ¥ Excellence in design and creativity
- ¥ Promotion of a spirit of community and civic engagement through involvement in local beautification programmes
- ¥ Gaining maximum financial advantage and media exposure through opportunities created by city decoration and beautification.

A detailed scoping exercise was undertaken between January and June 2009 to identify and map areas where improvements and maintenance must be prioritised ahead of the 2010 FIFA World Cup™. The maps and detailed description of issues were presented to the CoCT's executive management team for consideration and action. A number of new projects have been initiated, including landscaping and tree-planting projects in the vicinity of the VSTS's in two of Cape Town's previously disadvantaged areas.

The city beautification programme offers communities the opportunity to be involved in preparing the city to host the 2010 FIFA World Cup™. Community beautification and clean-up campaigns with the youth and community members, facilitated by local soccer clubs, schools, environmental co-operatives and NGOs, will not only benefit the environment, but will create a sense of anticipation and ownership of the World Cup event. A prominent Cape Town businesswoman donated 50 mature trees, and discussions are under way with other organisations who have indicated that they also wish to participate in projects to improve their local environment ahead of the 2010 event.



Lessons learnt on city beautification and tree-planting campaign

The scoping of the 2010 beautification project highlighted the great need for investment in the city's open spaces and visible infrastructure. In many cases, capital budget constraints force repairs to be carried out on infrastructure that should rather be replaced or renewed.

The city beautification workstream is one of the largest 2010 workstreams, involving a host of CoCT departments and agencies. The majority of stakeholders have accepted the challenge of city beautification with enthusiasm, excited to be part of the process to prepare the city to host the World Cup event. Some departments had to reprioritise maintenance, and will require additional standby teams should emergency maintenance and repairs be required. Funding has been secured for key projects, which will make a visible contribution to the beautification of the city ahead of the final draw in December 2009 and the actual World Cup event in 2010.

The support provided by a Dutch international intern to scope the extent of the 2010 city beautification programme was invaluable. The site visits and mapping formed part of the intern's final-year thesis to qualify for a degree in Engineering and Urban Design.

Key references and source material

- ¥ Announcement of Mouille Point promenade student design competition
- ¥ City of Cape Town. August 2009. Draft 2010 City Beautification Plan
- ¥ FIFA. November 2008. City Beautification Guideline
- ¥ OVP Landscape Architects. August 2009. Detailed design of Green Point Park
- ¥ Ozinsky, S, Ackermann, K., and Lamb, S. January 2009. Green Point Park and ECO Centre Business Plan. (Cape Town, South Africa). Commissioned by City of Cape Town
- ¥ Submissions by students from CPUT and UCT.

6. Green building and sustainable lifestyles

Where the 2010 event can influence the health and well-being of participants, spectators and the public, it should be encouraged. This would include promoting a **healthy and environmentally sound lifestyle** and safe living conditions; ensuring compliance with **health and safety standards**; promoting good air quality, and avoiding, or at least reducing, noise and light **pollution** as well as the use of and exposure to toxic materials; and providing easy access to all the events for **persons with disabilities**.

The projects

- 6.1 ECO Centre in the GPP
- 6.2 Undertake and monitor green review for Green Point and Athlone stadia
- 6.3 Cape Town Green Map
- 6.4 2010 Green Goal volunteer training module
- 6.5 Green Goal soccer club competition
- 6.6 Soccer and environment educational poster and guide
- 6.7 Green Goal short films
- 6.8 Anti-littering and waste recycling campaign
- 6.9 Drink tap water campaign
- 6.10 Green procurement for 2010 events
- 6.11 Greening of 2010 events

Project progress

6.1 ECO Centre in the GPP

The proposed ECO Centre in the GPP is a 2010 Green Goal legacy project expected to deliver substantial value to Cape Town. The ECO Centre will be a non-profit organisation that promotes sustainable living practices in order to educate and inspire, acting as a seed for further change, and helping Capetonians to adopt sustainable living practices. Through its unique design and use of many green technologies, the ECO Centre will demonstrate environmentally friendly construction, and will embody all the principles of treading lightly on the earth. It will serve as an example, and inspire and empower Capetonians and visitors to our city to allow their lifestyles to be guided by earth-wise choices for a healthy and prosperous future.

The ECO Centre will provide a tangible and enjoyable learning experience for young people and adults through hands-on workshops, interactions with living plants and animals, seminars, lectures and guided tours.

The availability of non-potable water from the Oranjezicht Springs presents an opportunity to add to the environmental capital of the GPP through the development of a wetlands-type landscape. This area can be used to capture and manage water flows, using reed-based technologies and vegetation, which also provide habitats for small frogs and insects. The ECO Centre will face a series of wetland ponds filled with the spring water.

The following will be associated with the ECO Centre:

- ¥ A worm farm
- ¥ The biodiversity showcase garden



- ¥ Organic vegetable gardens and vegetable allotments
- ¥ Play areas for young people
- ¥ A public art pavilion and outdoor art
- ¥ A recycling drop-off centre and demonstration area
- ¥ A bicycle rental facility

A business plan and draft fundraising strategy was developed in 2008, and a KAS-sponsored workshop was convened on 27 March 2009 to discuss the ECO Centre and its programmes. A wide range of stakeholders attended, including the landscape architects responsible for the GPP, as well as representatives of Sail StadeFrance, the operator of the new Green Point Stadium and the GPP. The operator expressed support for the ECO Centre, subject to the negotiation of sponsorship and legal and management arrangements between the operator and the ECO Centre management.

The ECO Centre will be a non-profit entity; however, it will operate or grant concessions for certain commercial activities, such as an ECO Caf , which will generate revenue and turn a profit. All revenue and profit from operating activities will be used to support the ECO Centre s programmes. The ECO Centre will have three full-time employees for the first two years of operation, adding a full-time bookkeeper in the third year.

It is proposed that a six-month start-up phase will precede a 12-month construction period, after which the ECO Centre would be in full operational mode. The start-up phase will be funded by donor and public funds, during which detailed architectural drawings and zoning modifications will be completed. The construction phase would commence only once sufficient funding has been secured. It would be funded as determined during the start-up phase, through a combination of donor and other funds (i.e. grant funding, loans, government capital investment, corporate donations/sponsorship or a combination of the aforementioned) that would not require the capital to be refunded.

The projected funding requirements for the start-up and construction phases are R1,5 million and R2,7 million respectively, with R35 million required for the actual construction and fitting out of the ECO Centre.

The stadium architects responsible for the upgrade of other buildings in the GPP were appointed to prepare conceptual design drawings of the ECO Centre. Their brief called for the design of a green building that is a demonstration of sustainable building practices in its own right. The footprint of the centre is now finalised, and the detailed design is being translated into artist s impressions to be used for fundraising purposes.

An intern from Germany is currently scoping the environmental education programme that could be offered by the centre, focusing on messages and contents not already covered by other environmental education facilities in Cape Town.

Lessons learnt on the ECO Centre

The ECO Centre has evolved over time, from the initial concept to an anchor element within the GPP. However, significant capital funding is required to construct and equip this centre to offer a world-class environmental education experience to visitors and residents. Approval in terms of environmental and planning legislation must still be obtained, and more public consultation is required to ensure broad buy-in.

The legal arrangements between the CoCT as the land owner, the operator appointed to manage the park for 30 years, and the to-be-established ECO Centre legal entity have been extensively debated, but have as yet not been resolved. Further discussions will be required to arrive at the most beneficial arrangement for all parties. It will to a certain degree depend on the type of grant or funding that is secured for the construction and operation of the centre, and the conditions under which the funding is granted.

Raising funds for environmental projects in the current economic climate is a challenge, particularly to access funding from the corporate sector. The strategy to date has been to target overseas grant funding. KAS is assisting by facilitating access to German agencies with grant funding. At the same time, grants from foundations elsewhere in Europe and the United States of America are being targeted. The services of a skilled fundraiser may have to be contracted to assist the CoCT and PGWC with this task.

6.2 Undertake and monitor green review for Green Point and Athlone stadia

In 2007, DEAT, through the UEMP funded by the Royal Danish Embassy, commissioned a review of the greening status of the FIFA World Cup stadia (official match stadia and training venues). The aim was to establish how green the stadium designs were, and provide the design teams with the opportunity to enhance the green aspects of their designs. The review also summarised the lessons learnt for the benefit of other stadium designers and operators.

DEAT appointed a team to review the designs of five World Cup stadia, including both Green Point Stadium and Athlone Stadium, using the Council for Scientific and Industrial Research's Sustainable Building Assessment Tool.

Representatives from the CoCT and the professional teams responsible for the design of the stadia met with the review team to brief them on the design of the stadium as well as measures that have been taken to make the stadia more sustainable from an environmental, social and economic perspective.



The professional team reviewed the draft report produced for each stadium before it was finalised. The findings from the Green Point Stadium report were published in a booklet, *Green Point Stadium: Environmental Performance Enhanced*.

The review team concluded that the overall sustainability of both stadia was good and well balanced across the three measured areas. Some cutting-edge interventions in Green Point Stadium were noted, including the water-cooled variable refrigerant-volume air-conditioning system, used for the first time in a stadium application in South Africa.

The recommendations made by the review team have been considered, and in the case of Green Point Stadium, further optimisation of the BMS will be achieved through the installation of additional lighting sensors in the stadium, funded from the DANIDA 2010 carbon offset grant.

Lessons learnt on green review for Green Point and Athlone Stadia

Although the purpose of the review was to determine whether the stadia designs were in line with green building principles, the review team also shared considerable insight and knowledge with the stadium professional teams at the workshops. The host cities that participated in the review of the 2010 World Cup stadia (Cape Town, Durban, Rustenburg and Polokwane) all felt that it would have been more beneficial if this specialist knowledge had been available during the conceptual design stage of the stadia. By the time the review took place, most stadia were already designed and in the construction phase.

Although it was an academic exercise for most of the stadia, in the case of Green Point Stadium, some of the recommendations from the review can still be retrofitted to the stadium. Additional funding was recently secured to implement further optimisation of the BMS, which was a recommendation from the review.

The final report of the Green Point Stadium review was shared with the professional team responsible for the Philippi Stadium upgrade, and as a result, two best-practice energy-saving interventions have been included in the stadium refurbishment, also funded by the UEMP 2010 carbon mitigation programme.

6.3 Cape Town Green Map

The primary objective of the Cape Town Green Map is to inform Capetonians and visitors of opportunities to experience and support Cape Town's wealth of natural resources and sustainable green living options. The Green Map provides a fresh view of the city's environment, and showcases hot spots and locations of ecologically sensitive areas and activities in and around Cape Town. Included in the map are nature reserves, ecotourism sites, organic and farmer's markets, recycling drop-off centres, etc.

This map will give Capetonians and visitors to Cape Town an overview of the wealth of sustainable options available to them, and will encourage behavioural change. It further creates an incentive to the city's commercial sector to become more environmentally aware and adopt green and/or sustainable practices and operating procedures.

The Cape Town Green Map is available in an online interactive version, accessible to the general public and visitors alike, on www.capetowngreenmap.co.za. A printed version of the map will be available from October 2009, and will be updated before the 2010 FIFA World Cup™ in June 2010.

The Cape Town Green Map is based on the Open Green Map System (www.greenmap.org), thereby benefiting from Greenmap.org's resources and mapping technologies. Cape Town has joined over 350 Green Map cities in 50 countries on the Greenmap.org website.

A set of green criteria and icons are used to select and display locations on the map.



The Cape Town Green Map was launched on 5 June 2009 at a carbon-neutral virtual function hosted on PCs/laptops/mobile phones. The media were invited to register upfront to receive their green media pass, which provided up-to-the-minute newsfeeds on the day of the launch.

Lessons learnt on Cape Town Green Map

The services of a specialist mapping and communications team were required to create the Green Map. The CoCT awarded the contract to a team with many years' experience in creating online and tourist maps. The team's creative approach has been valuable in creating awareness of the map, and establishing it as a source of environmental information in the city. Green Map bookmarks and a small display will be used to market the map widely at environmental conferences and events.

The initial plan was to attract a few headline sponsors for the map, but in the current economic climate, this has proved challenging. It is likely that the Cape Town Green Map has to establish itself as an online environmental resource with a credible following, before commercial sponsors will be interested. The CoCT is therefore retaining control over the map until after the 2010 FIFA World Cup™, when third-party sponsorship will again be considered.



6.4 2010 Green Goal volunteer training module

The LOC has identified 16 functional areas for volunteers, including environmental services. Environmental services volunteers are expected to have an interest in environmental and waste management. They should be able to inform spectators of the environmental management initiatives in the stadium precinct and the other areas where they may be deployed.

All volunteers will receive induction and training to understand their responsibilities, the venue of operation, and general information about the 2010 FIFA World Cup™.

Host City Cape Town will appoint approximately 500 volunteers to assist with the operations of the 2010 FIFA World Cup™. These volunteers will receive environmental awareness training, irrespective of their functional area. In-depth training will be provided for environmental services volunteers who will be deployed to assist with recycling and waste management during the 2010 FIFA World Cup™. For this purpose, an environmental awareness training module has been developed, incorporating contents from the CoCT Basic Environmental Awareness Training, the Smart Living Tool for Adult Learners, and the DEAT training course on event-greening guidelines.

Volunteer applications for the 2010 FIFA World Cup™ closed on 31 August 2009, and security screening and pre-selection is under way.

The volunteer programme is one of the legacy programmes of the World Cup event, aiming to equip volunteers with the skills to serve at future major events. The imparting of environmental knowledge about the Green Goal 2010 programme, the city and the region, is part of this legacy. The environmental awareness training module will be used for volunteer training for future major events in Cape Town and the Western Cape.

Lessons learnt on Green Goal volunteer training module

The inclusion of environmental services in the functional areas for volunteers was an early success of the 2010 Green Goal programme. Environmental services volunteers were recruited for the FCC, and they contributed significantly to keep the stadium environments litter-free by assisting spectators to dispose of their waste in the containers provided for this purpose. They also assisted with waste separation, ensuring that waste was disposed of in the correct bin for future recycling/disposal.

The FCC experience showed the importance of volunteer training and induction. Training of volunteers for the 2010 FIFA World Cup™ will start earlier and will be more comprehensive than for the FCC, to ensure that volunteers are adequately skilled for the task they must perform.

Host City Cape Town took a decision that all volunteers, regardless of where they are deployed, should receive basic environmental awareness training to equip them to answer general questions about the environment of Cape Town. Based on the experience of the FCC, environmental services volunteers will also be recruited to serve at the fan fests, PVAs and along the fan walk to help keep these environments litter-free, especially since cleansing crews will not be allowed to access these areas during operating hours.

6.5 Green Goal soccer club competition

6.6 Soccer and environment educational poster and guide

The project Making Connections — Soccer and Environment was conceptualised by the team responsible for the CoCT Local Agenda 21 programme. The CoCT partnered with a local NGO, Youth Unlimited, to develop the poster and conceptualise the messages. The poster was successfully piloted as an environmental education tool at a Manenberg youth football tournament in 2006.

The 2010 Green Goal soccer and environment educational programme is targeting Grade 7 learners of schools participating in the CoCT Youth Environmental Schools (YES) programme. The poster has been updated with new messages, and has been approved by FIFA for distribution. An educational programme, including an interactive theatre production, has been developed, using concepts from the poster and booklet. This is supported by a teacher's guide containing suggestions on how to integrate the soccer and environment poster and concepts with the Grade 7 curriculum.

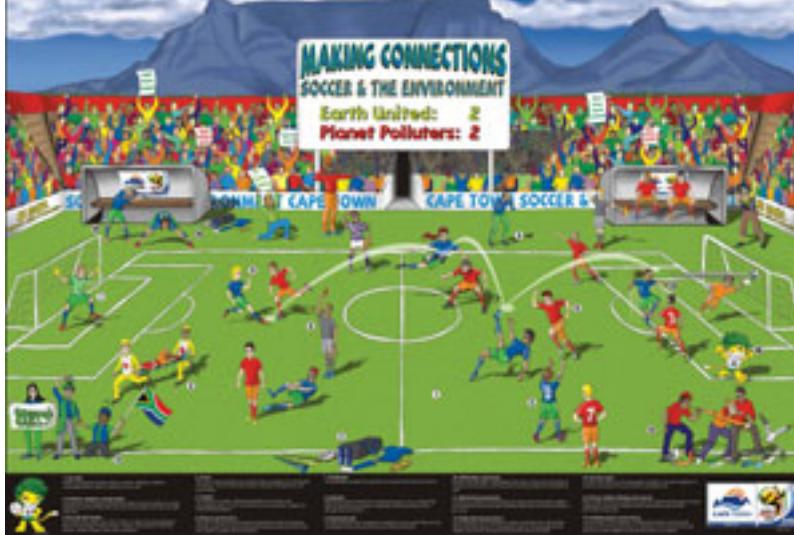
The schools that participated in the soccer and environment educational programme will play in a Green Goal soccer and environment tournament on World Environment Day, 5 July 2010.

Lessons learnt on the soccer and environment educational poster and guide

The original soccer and environment poster was developed as a resource for a workshop as part of the Local Agenda 21 partnership between the CoCT and Aachen in Germany. The poster concept was a collaboration between the CoCT and a local NGO.

The 2010 FIFA World Cup™ created an opportunity to develop the poster into a resource, which, together with an environmental education programme, aims to raise awareness and change behaviour. The interactive theatre production makes use of concepts from the poster to support the message of environmental protection.

The development of the educational booklet has taken longer than expected, due to the need for more research to



integrate the contents with the curriculum for Grade 7. A draft is now available, and will be submitted to FIFA in September 2009 for approval. It was beneficial to have the team developing the educational programme and interactive play work closely with the designers responsible for the development of the poster and educational booklet.

6.7 Green Goal short films

A short DVD promoting the 2010 Green Goal programme was developed and screened for the first time at the Green Goal Action Plan launch in October 2008. Since then, the DVD was screened at various meetings and exhibitions, including SoccereX 2008. The DVD will be updated with new footage, and will be screened during the World Cup at fan fests and PVAs.

Lessons learnt on Green Goal short films

In order to document the Green Goal programme effectively, footage should be acquired on a regular basis. Filming should start as early on in the process as possible.

6.8 Anti-littering and waste recycling campaign

The CoCT has ongoing anti-littering campaigns as part of the Solid Waste Department's communications strategy. The CoCT has obtained the sole rights to relaunch the character Zibi to assist with a public awareness campaign for a split-bin system for wet and dry waste, being rolled out in certain identified areas in the Cape Town CBD.

PGWC's 2Wise2Waste campaign, launched in December 2006, will be rolled out to fan jols and base camps in the province as part of the 2010 FIFA World Cup™ preparations.

The LOC developed recycling signage for the FCC, and is currently reviewing this signage to integrate it with event signage for the 2010 FIFA World Cup™.

A specific 2010 anti-littering and waste recycling campaign is currently being scoped. The campaign will integrate with the existing waste campaign strategies of the CoCT, PGWC and LOC. The campaign will target residents and visitors before and during the World Cup, and aims to prevent littering and promote recycling in event areas.

6.9 Drink tap water campaign

The CoCT was recently awarded blue drop status by DEA. Blue drop status indicates that consumers can safely drink water from the taps in Cape Town, and be secure in the knowledge that wastewater is managed and discharged in a sustainable, environmentally acceptable manner.

An above-and-below-the-line Green Goal 2010 advertising campaign is currently being scoped to assure and encourage residents and visitors to the 2010 FIFA World Cup™ that Cape Town's tap water is safe to drink. A pilot campaign, in partnership with the LOC and Match, will be rolled out at hotels in Cape Town during the final draw, and will be scaled up during the 2010 FIFA World Cup™.

6.10 Green procurement for 2010 events

6.11 Greening of 2010 events

Green procurement criteria have been included in the tenders for the stadium operator, fan fest operator and final draw red-carpet pre-event organiser. A scoring mechanism has been developed, which will be used as a basis for other operational tenders for the 2010 FIFA World Cup™.

The final draw red-carpet pre-event will be a green event, highlighting ways in which large events with international media appeal could be environmentally responsible. The CTICC, the venue of the final draw, recently launched its event-greening strategy and green event packages, which will be available during the final draw.

The CoCT has a power-purchase agreement with Darling Wind Farm. Green electricity certificates will be purchased for the final draw pre-event and events in Green Point Stadium, fan fests and PVAs during the 2010 FIFA World Cup™.

Lessons learnt on green procurement and greening of 2010 events

The lack of a comprehensive corporate green procurement policy has been highlighted, although municipal legislation provides for environmental criteria to be included in tenders, as long as it is supported by a defensible scoring system. The scoring system is being refined, and can be applied to the procurement of goods and services for future events.

Although the Green Goal principles are incorporated into all aspects of Host City Cape Town's 2010 FIFA World Cup™ preparations, specific measures such as the purchasing of green/renewable energy can be taken to improve the green signature of the event. Renewable energy is more affordable than most people realise, and in Cape Town, it is possible to purchase wind energy from a facility on the city's doorstep.



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7. Responsible tourism

We live in one of the most beautiful places on earth, and Cape Town and the Western Cape attract visitors from across the globe. A more mindful approach to tourism that **respects the natural and cultural environment**, and contributes in an **ethical manner to local economic development**, is essential. Responsible tourism should be an integral part of the tourism development plan for the event, as it plays an important role in contributing to the country's sustainable development and **responsible tourism legacy**. Tourism should be environmentally friendly, with a focus on **local economic development and social justice**.

The development and marketing of tourism packages that **emphasise environmentally friendly and socially responsible activities**, for example hiking trips in natural areas, or township tours providing economic opportunities to disadvantaged communities, should be promoted.

Accommodation facilities are encouraged to improve their **environmental footprint**, and provide guests with technical, organisational and behavioural options for a more resource-efficient stay. Activities should focus on effective resource management (energy, water and waste) and promote socially responsible investment benefiting local communities.

The projects

- 7.1 Code of responsible conduct for visitors
- 7.2 Responsible tourism awareness and training
- 7.3 Environmental accreditation system for accommodation sector: GreenStaySA

Project progress

7.1 Code of responsible conduct for visitors

The CoCT and CTT have jointly developed a code of responsible conduct for visitors and tourism product owners/operators, building on the Cape Town Declaration. An abridged code was included in the 2009 Cape Town Official Visitor's Guide, and will feature in the 2010 Official Visitor's Guide, as well as in the 2010 Official Fan's Guide.

The CoCT was approached by UNEP to participate in a pilot project to roll out the UNEP Green Passport, which contains helpful tips for responsible tourism/travelling. Further discussions are under way.

Lessons learnt on code of responsible conduct for visitors

The sustainability of a code published in hard-copy format, for example in the form of a Green Passport, must be determined before the project is implemented. Funding may not be available in future to continue with the project. It is more sustainable to load the code onto relevant websites, and summarise the contents for inclusion in visitor's guides.



7.2 Responsible tourism awareness and training

CTT is planning to present a responsible tourism awareness and training course to the industry as part of its service excellence programme. The training will be based on the contents of the CoCT Smart Living Handbook. The training programme is currently being scoped for implementation in the first half of 2010.

7.3 Environmental accreditation system for accommodation sector: GreenStaySA

Reducing the carbon footprint of the 2010 FIFA World Cup™ is a key component of hosting the event. The accommodation sector is second only to transport in terms of its environmental impact.

GreenStaySA is an online information resource and accreditation system that supports the move towards improved environmental performance in the accommodation sector.

It provides guidance and support to facilities that wish to improve their environmental footprint and operate in an environmentally responsible manner. All accommodation establishments, however small, can use the GreenStaySA tools and resources in order to improve their environmental footprint.

The tools and resources that have been developed include the following:

- A self-assessment tool to assess current environmental performance
- A technical manual to assist accommodation establishments in the implementation of environmental interventions

GreenStaySA has its origin in a pilot project run in 2004 under the Cleaner Production programme of the DEADP. Nine accommodation establishments participating in the pilot were audited for energy and water consumption and management, and waste management. A need for a certification programme was identified during the pilot project. The development of such programme was subsequently funded by DEADP and, more recently, the British High Commission. Certification of tourism businesses under GreenStaySA will commence as soon as DEA finalises national minimum standards for responsible tourism.

Responsible tourism training workshops are being convened by the DEADP and GreenStaySA throughout the Western Cape.

Currently, GreenStaySA is working with DEA, the Tourism Grading Council of South Africa, Indalo Yethu, and Fair Trade in Tourism South Africa to develop and implement a national standard for responsible tourism and an accreditation system for certification agencies in South Africa.

Lessons learnt on environmental accreditation system

A very small proportion (less than 500) of tourism enterprises in South Africa are currently certified by responsible tourism schemes, compared to 8 457 in the country that have a star rating from the Tourism Grading Council. Although the low level of uptake by tourism enterprises in South Africa is not unusual when compared to global experience, it is an indication that responsible tourism certification is not yet mainstreamed in South Africa. Half of certified tourism products in South Africa are accredited by more than one scheme, and more than half are considering accreditation by a further scheme, indicating that schemes are not comprehensive across environmental, social and economic criteria. GreenStaySA has positioned itself as an environmentally focused scheme, with social and economic criteria.

Delays in rolling out GreenStaySA for 2010 are due to the Department of Tourism process to formalise national minimum standards for responsible tourism, which are expected to be published in late 2009.

Key references and source material

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Groen hart vir stad

Die Groenpunt-moeders gaan voort met die uitbrei van die Wêreldbeker-voorbereitings om die stad te groen en te sorg vir 'n aangename en gesonde leefomgewing vir alle burgers. **TRIPS VAN DIE WÊRELDKUP**



Meeste in SA dink land is reg vir 2010
 Die meeste Suid-Afrikaners glo dat die land gereed is vir die FIFA Wêreldbeker-toernooi in 2010. Volgens 'n nuwe omvattende ondersoek deur die Sentraal-Inteligensie-buro (SAB) is 70% van die bevolking seker dat die infrastruktuur en dienste wat nodig is vir die toernooi gereed is. Die SAB-omvraag het ook gevind dat 60% van die bevolking glo dat die omgewing gereed is vir die toernooi. Die SAB-omvraag het ook gevind dat 50% van die bevolking glo dat die veiligheid gereed is vir die toernooi. Die SAB-omvraag het ook gevind dat 40% van die bevolking glo dat die hospitaal-diens gereed is vir die toernooi. Die SAB-omvraag het ook gevind dat 30% van die bevolking glo dat die vervoer gereed is vir die toernooi. Die SAB-omvraag het ook gevind dat 20% van die bevolking glo dat die kommunikasie gereed is vir die toernooi. Die SAB-omvraag het ook gevind dat 10% van die bevolking glo dat die ander dienste gereed is vir die toernooi.

8. Green Goal communications

All role players, including the broader public, visitors, service providers and industries, need to be encouraged to participate actively in all aspects of the greening of the event. A clear **outreach strategy** should be drafted to ensure that all event-greening stakeholders are aware of their roles regarding greening implementation. Also, **an educational and public awareness campaign** should be developed in order to raise awareness and facilitate behavioural change in persons beyond those directly participating in the event.

The projects

- 8.1 Green Goal workshop series 1 and 2
- 8.2 Green Goal brand development and activation
- 8.3 Briefing for potential Green Goal funders
- 8.4 Green Goal marketing and communications plan and roll-out
- 8.5 Green Goal ambassadors
- 8.6 Green Goal website and online resources
- 8.7 Green Goal 2010 exhibition
- 8.8 Green Goal 2010 awards

Project progress

8.1 Green Goal workshop series 1 and 2

Green Goal workshop series 1 and 2 have been completed. For more details, refer to Sections 5.1 and 6.1 earlier in this document.

Lessons learnt on workshops

Green Goal workshop series 1 invited stakeholders to work with Government to agree on priorities for the 2010 FIFA World Cup "event-greening programme. The workshop series ensured that the opinions of a wide range of stakeholders were heard before decisions were made on principles, objectives and projects.

Green Goal workshop series 2 was more focused and aimed to advance the implementation of specific projects. The carbon offset workshop informed the final selection of carbon mitigation projects to be funded from the UEMP 2010 carbon interventions fund. The ECO Centre workshop provided an opportunity for the stadium operator to familiarise themselves with the proposed concept, and is critical for the success of this facility in the future GPP. The workshop on responsible tourism aimed to advance the responsible tourism projects, which were falling behind in terms of their implementation.

8.2 Green Goal brand development and activation

8.4 Green Goal marketing and communications plan and roll-out

8.5 Green Goal ambassadors

I think the answer lies in the story of the small boy on a beach where thousands of starfish had been washed up. One by one he was returning them to the sea. A man passed. He asked: Why bother? What you do will make no difference. You can't possibly put them all back. The boy picked up another starfish and said: Well, it'll make a difference to this one ... Loren Eiseley (1907 - 1977)

One of the key legacy opportunities presented by the 2010 FIFA World Cup™ is the platform that the event provides to leverage international and local media attention, which will in turn lead to behavioural change in favour of the environment. This will have the long-term benefit of reducing the consumption of scarce resources, such as water, energy and biodiversity, as well as reducing the amount of waste-to-landfill.

A draft Green Goal marketing plan was compiled in line with Host City Cape Town's 2010 FIFA World Cup™ communications strategy. The plan identifies key messages, target audiences and channels of communication.

The Green Goal 2006 programme in Germany had its own logo and identity, and the initiative raised its own sponsorship other than FIFA's official commercial affiliates. It was the intention from the beginning that the 2010 Green Goal programme would also have its own logo, which could be used by host cities and national and provincial government to promote event greening. However, the logo was never launched, and has not been officially released. Until such time as a logo is available, Cape Town is using the host city look and feel for documents and presentations.

At a national Green Goal communications workshop in 2008, the host cities agreed that a national 2010 Green Goal ambassador(s) should be appointed to represent the 2010 greening programme. To date, the national programme has not been launched, and therefore the issue of a national ambassador(s) has not yet been addressed. In the meantime, PGWC 2010 FIFA World Cup™ ambassadors will be invited to events, as required.

Maintaining a good relationship with the media and stakeholders is a priority of the Host City Green Goal programme. Positive media coverage resulted from the launch of the Green Goal Action Plan, including print and radio coverage. The Host City Cape Town Green Goal programme has been featured twice on SABC's Countdown 2010 television show.

Green Goal featured prominently as part of the media partnership between CoCT and two local media houses that covered host city activities between January and June 2009.



Articles focusing on the green technologies in Green Point Stadium, the development of the GPP spring water irrigation project, integrated waste management, city beautification and the Green Point ECO Centre were published.

The launch of the Cape Town Green Map also attracted media attention, and the project manager was interviewed on radio and television around the time of the launch.

The project team used the local media to invite NGOs and communities to register their environmental projects and products on the Cape Town Green Map.

More than 50 presentations have been made to stakeholders and media on progress with the implementation of the Green Goal Action Plan. The Host City Cape Town Green Goal programme was also presented at the Global Forum on Sport and Environment conference in Alicante, Spain, in October 2008.

Lessons learnt from Green Goal brand development and activation, marketing and communications and Green Goal ambassadors

By not releasing a Green Goal corporate identity/brand, Green Goal 2010 brand awareness has been delayed. The lack of FIFA involvement as well as the low-key integration of Green Goal with overall World Cup communications, are lost opportunities. The absence of personalisation (for instance the employment of well-known sporting personalities) remains a challenge, which could still be turned into an opportunity if it is taken up between now and the 2010 FIFA World Cup™.

The Beijing Summer Olympics in 2008 received negative media coverage as a result of the perceived poor air quality in the city. The organisers did not keep the media adequately informed of the many positive interventions that had been introduced to improve air quality and the environment of the city. Host City Cape Town actively engages the media to provide information on the implementation of the Green Goal Action Plan, and it is hoped that this positive working relationship will lead to ongoing positive media coverage of the 2010 event greening programme.

8.3 Briefing for potential Green Goal funders

To date, a briefing has not been held. Should it become necessary, a briefing will be arranged to inform potential donors and funders about opportunities for the sponsorship of specific projects.

8.6 Green Goal website and online resources

8.7 Green Goal 2010 exhibition

A Host City Cape Town Green Goal website has been created, and can be accessed on www.capetown.gov.za/fifaworldcup. It is being updated on a regular basis, and serves as an online resource to persons who wish to learn more about the event greening programme in Host City Cape Town. An online newsletter is being created to update stakeholders on progress with the implementation of the Green Goal Action Plan.

The Host City Cape Town Green Goal programme has been featured at a number of national exhibitions, including the Tourism Indaba and Soccerex. Green Goal contents will be featured as part of the host city exhibition during the final draw, as well as exhibitions at the time of the 2010 FIFA World Cup™. A stand-alone Green Goal exhibition is planned to feature at host city events ahead of and during the 2010 FIFA World Cup™.

Lessons learnt on Green Goal website and online resources and Green Goal exhibition

Ideally, the Green Goal programme should have its own website that is hosted outside of a government website, and allows broader functionality, timeliness of updates, and engagement with communities of interest. A national 2010 Green Goal website was proposed, but until it is created, Host City Cape Town relies on the official host city website to disseminate information online.

The delay in the release of the national Green Goal brand resulted in insufficient marketing collateral being available to satisfy the huge demand for information at national exhibitions. To compensate, the Green Goal film and action plan were made available on DVD to interested persons who visited the exhibitions.

8.8 Green Goal 2010 awards

Host City Cape Town and KAS were instrumental in bringing the opportunity of a National 2010 Sustainability Award to the attention of the Impumelelo Awards Trust. The Impumelelo 2010 Sustainability Award has since been launched, with KAS as a headline partner. Host City Cape Town submitted two applications to qualify for the award.

Lessons learnt on Green Goal 2010 awards

There are clear benefits to implementing an awards programme linked to Green Goal 2010 as a national project, rather than at host city level. The LOC/DEA could convene a national Green Goal 2010 awards programme, which would be able to attract a broad pool of entries across all host cities.



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9. Monitoring, measurement and reporting

Monitoring and evaluation of event greening should be done to check **performance against pre-set targets** and ensure that lessons are adequately captured. Internationally recognised reporting processes and evaluation parameters should be used. Monitoring and evaluation should pertain to the measures implemented, and their **impact**. The impact of all event-greening interventions should be taken into account and compared to a **baseline** of information. Lastly, results and lessons learnt should be documented, reported on and disseminated to raise awareness about event greening.

The projects

- 9.1 Procedures and methodologies
- 9.2 Targets and baseline studies
- 9.3 Annual reports and legacy report

Project progress

The Host City Cape Town Green Goal projects are documented and tracked using the host city project management methodology. Monthly reports are produced, which document progress and highlight issues and areas of risk. This progress report provides a summary of the status of each project, and highlights lessons and mitigation measures where projects are behind schedule. A 2010 Green Goal legacy report will be compiled to document the greening programme and serve as a guide to future hosts of the FIFA World Cup™ and other major events.

The lack of baseline environmental information for a major event such as the 2010 FIFA World Cup™ was identified early on. The LOC commissioned baseline energy, water and waste studies during rugby matches at Ellis Park and Loftus stadia, and these were augmented by a baseline study commissioned by Host City Cape Town during the Manchester United/Kaiser Chiefs football match at Newlands Stadium on 19 July 2008.

The baseline studies informed the development of minimum greening standards by the LOC, and form the basis of a Green Goal monitoring system during the 2010 FIFA World Cup™, which is currently being scoped as part of an integrated event-reporting tool.

Lessons learnt on monitoring, measurement and reporting of projects

Monitoring and evaluation is essential to keep track of standards and targets set, and to ensure that lessons learnt are captured and improved over time. Monitoring is not just required at the end of the 2010 event, but could be useful in keeping track of progress during the pre-event, as in this report, as well as during the implementation phase.



In reality, monitoring is greatly influenced by practical constraints, including the availability of information and resources allocated to information collection (which could be quite demanding). The German 2006 Green Goal programme came across a number of these practical constraints from which we can learn. Based on this, the general monitoring approach recommended is not one of collecting mounds of detailed baseline data and extensive monitoring of exact resource consumption at numerous points — this will prove difficult (as it did in Germany). The proposed approach is rather to assess impact based on resource-saving and other interventions implemented, and calculating the expected saving resulting from these. This is similar to the 2006 Green Goal approach.

Ultimately, the monitoring and evaluation efforts should deliver outputs that cover the following:

- ¥ Description of implementation projects, noting successes and failures
- ¥ Results — did Green Goal 2010 achieve its targets?
- ¥ Comparison to 2006 Green Goal assessment — have we moved forward?
- ¥ Lessons learnt for future events
- ¥ Likely trends that will impact on future event-greening strategies.

8. FINANCIAL AND RISK MANAGEMENT

8.1 Consolidated budget

Target area	Projects	Total budget				Other budgets						
		2008/9	2009/10	2010/11	TOTAL	CoCT	PGWC	National Government	Grant funding (secured)	Grant funding (to be secured)	Comments	
Energy and climate change	Determine the carbon footprint of the 2010 event	R148 500			R148 500							
	Identify and implement a carbon offset project in Cape Town/Western Cape								R7 000 000	R18 000 000	Funded by DANIDA. Possible additional funding from national 2010 carbon offset programme.	
	Install energy-efficient technologies in stadia and training venues, at fan park, PVAs and other facilities					2010 infrastructure and operating budgets						
Water conservation	Identify alternative sources of water for irrigation of Green Point Common	R200 000			R200 000	R10 000 000				R5 000 000	Donor sponsorship opportunity	
	Installation of water-saving devices in stadia and training venues					2010 infrastructure and operating budgets						
Integrated waste management	Operational waste minimisation in stadium, fan fest, PVAs and training venues in the run-up and during the event		R180 000		R180 000	2010 operating waste management budget						
	Green Goal branding of recycling bins and waste reduction signage at stadium, fan fest and pedestrian areas		R400 000		R400 000							
	Recycling drop-off centre in the CBD and Atlantic Seaboard					R1 140 000						
Transport, mobility and access	Development of bicycle and pedestrian lanes		R30 000		R30 000	R40 100 000	R49 100 000	R93 800 000				
	Development of public transport infrastructure		R30 000		R30 000	R383 280 000	R258 280 000	R1 118 970 000				
	CBD bicycle rickshaw service		R40 000		R40 000			R 700 000			Private-sector business opportunity	
	Ecotaxis		R35 000		R35 000							

Target area	Projects	Total budget											
		Green Goal budget					Other budgets						
		2008/9	2009/10	2010/11	TOTAL	CoCT	PGWC	National Government	Grant funding (secured)	Grant funding (to be secured)	Comments		
Responsible tourism	Drink tap water campaign		R270 000		R270 000	CoCT water management and communications budgets							
	Green procurement for 2010 events	R53 792	R50 000		R103 792								
	Greening of 2010 events		R300 000	R350 000	R650 000								
	Code of responsible conduct for visitors		R250 000		R250 000								
	Responsible tourism awareness and training		R150 000		R150 000								
	GreenStaySA								R1 372 000		Funded by British High Commission/DEFRA		
Green Goal communications	Green Goal workshop series 1 and 2	R25 000			R25 000								Funded by KAS
	Green Goal brand development and activation		R50 000		R50 000								
	Briefing for potential Green Goal funders												
	Green Goal marketing and communications plan and roll-out		R200 000	R55 000	R255 000								
	Green Goal ambassadors		R40 000		R40 000								
	Green Goal project website and online resources												
Monitoring, measurement and reporting	Green Goal 2010 exhibition		R150 000		R150 000								
	Green Goal 2010 awards			R120 000	R120 000								Private-sector sponsorship opportunity
	Procedures and methodologies Targets & baseline studies	R37 101											
	Annual reports and legacy report		R100 000	R260 000	R360 000								
TOTAL	R1 244 437	R3 700 000	R1 100 000	R6 044 437	R9 964 917	R58 300 000							

8.2 Risk status

Risk	Mitigation
<p>Lack of funding causes delays and gaps in the implementation of the Green Goal 2010 Action Plan, thereby compromising delivery. Where funding is allocated to the building of the new stadium, transport and other infrastructure, the financial constraints are high, and greening elements are not necessarily given priority.</p> <p>Resources might not be allocated in time, which would have a negative effect on the planning, implementation and monitoring of the Green Goal 2010 initiatives.</p>	<p>Obtain and sustain high-level support for the Green Goal programme.</p> <p>Effectively communicate 2010 greening objectives to CoCT and PGWC management and politicians to ensure buy-in.</p> <p>Market greening 2010 initiatives to United Nations bodies, and align greening with other national and international objectives.</p> <p>Ensure that funding for all the projects is urgently secured.</p> <p>Partner with donors and other organisations that could assist in funding certain aspects of greening.</p> <p>In the case of insufficient funding, set deadlines, and if not achieved by those dates, cut projects or project phases as quickly as possible in order to minimise delays, reduce the chances of projects not being completed, and eliminate the possibility of poor-quality projects being delivered.</p> <p>Actively manage expectations around the shortfall in delivery as part of Green Goal 2010 communications.</p>
<p>Lack of capacity (skills) will manifest itself as a problem when putting projects out to tender in terms of higher costs for scarce skills, reduced availability of these skills (i.e. causing delays) and fewer tenders submitted. There is also a significant risk that undercapacitated individuals and teams will not be able to deliver on projects up to an appropriate level of quality or within the required time frame.</p> <p>There is a lack of understanding of what the implementation of a green event entails. Capacity building is required, specifically with CoCT and PGWC officials, the stadium operator and other service providers, so that they can provide appropriate services that take environmental considerations into account.</p>	<p>Evaluate tenders based on demonstrated capacity to deliver according to time constraints and quality standards. Cost cannot be the primary determining factor for most of the tenders where scarce skills are involved.</p> <p>Insist on rigorous project management standards, reporting, and oversight of consultants and implementers of projects. Additional resources will need to be committed to the monitoring of overall delivery and quality, so that potential shortcomings or problems can be identified and rectified as quickly as possible.</p>
<p>Synergy with DEA and LOC at a national level to ensure optimal Green Goal activation (such as branding, carbon offset, negotiations with FIFA, etc). While this will likely strengthen the Green Goal programme, it will put certain deliverable milestones outside the control of Host City Cape Town, and will cause delays.</p>	<p>Actively collaborate with DEA and LOC around Green Goal, and be prepared for (i.e. allocate resources for) a sustained communications effort to help ensure that these dependencies are met. Where the dependencies will not be met, rapid communication to the local project teams will be required, with decisions taken to delay or cancel projects, depending on the circumstances.</p>
<p>Lack of Green Goal coordination among the host cities could allow inefficiencies to persist at local level, and could also increase the burden on the LOC to manage an uncoordinated set of Green Goal implementation plans. This, in turn, would delay decision-making processes, and could lead to complex and unclear Green Goal communications.</p>	<p>Work through LOC to improve communication lines among host cities, and between the host cities and the LOC.</p>

Risk

Time constraint risks. Greening plans and roles and responsibilities of different players need to be established years before the event if greening is to be adequately implemented. South Africa and Host City Cape Town started late in this regard. This will affect thoroughness of implementation.

Another concern is the fact that the timing of different processes is not synchronised, i.e. many of the host cities already have their action plans in place prior to guidance from national level or the LOC. Had all the host cities waited for the national guidelines, standards and business plan for 2010 FIFA World Cup™, their greening initiatives would have been far behind schedule, which would affect successful execution.

Unfortunately, the review of the greening of the new stadiums was considered rather late, when much of the construction agreement was already in place.

Lack of buy-in from the public and international visitors. Of concern is the fact that the LOC has not yet launched the Green Goal 2010 brand. Without an effective Green Goal 2010 communications strategy, there will be very little awareness of Green Goal 2010 objectives or ability to influence behavioural change.

Mitigation

Finalise plans and progress reports speedily, and disseminate them to all stakeholders.

A coordinated and compelling Green Goal 2010 communications plan, targeting the public and international visitors, needs to be driven by the LOC and DWEA, with inputs by the host cities.

8.3 Funding requirements and donor opportunities

The City of Cape Town has committed over R6 million in direct funding for Green Goal 2010 projects. In addition, the City has committed R10m to fund the harvesting of spring water from the Oranjezicht Springs for the irrigation of the GPP.

This funding has leveraged an additional R8 million in grant funding for the greening of the 2010 FIFA World Cup™ in Cape Town and the Western Cape.

Indirect funding from CoCT, PGWC and DOT for major infrastructure projects that support the Green Goal objectives totals approximately R1,9 billion.

However, in spite of this spend, there are still additional projects in the Green Goal 2010 Action Plan that are important and yet remain unfunded at present. These represent remarkable opportunities for donors and other funding institutions to play a partnership role.

The following key projects still require donor funding:

Project	Funding required	Project outcomes
Identify and implement carbon mitigation project(s) in Cape Town/Western Cape	R25 million (R7 million already received from DANIDA)	Direct reduction in the net carbon footprint of the event; one of the major means of achieving the energy and climate change goals of Green Goal 2010
Identify alternative sources of water for irrigation of Green Point Common	R15 million (CoCT has committed R10 million, and the project is proceeding)	The construction of the irrigation infrastructure to ensure that potable water is not used, and that surface water resources are conserved. Further investment is required in the cultural heritage component of the project to realise the full potential of this project as a showcase of civic hydrology.
ECO Centre in the GPP	R35 million (DANIDA has funded the compilation of a business plan, and the CoCT has commissioned initial architectural designs)	Construction of the ECO Centre in the GPP. The centre will be an important showcase, resource and catalyst for residents and visitors to understand conceptually and at a practical, step-by-step level how they can reduce their carbon footprint; one of the primary ways that the 2010 events will have a sustained transformative impact on the lifestyle choices of the region's residents.

9. KEY INSIGHTS AND NEXT STEPS

The 2010 FIFA World Cup™ will transform Host City Cape Town, and will provide a lasting, sustainable legacy, not only in terms of improved transport and waste management approaches, but also in terms of event-greening measures, skills and capacity. For a major events city such as Cape Town (the Cape of Great Events), this capacity may prove invaluable.

Of the 41 projects being implemented, 19, or 46%, are legacy projects, meaning that they will contribute to the well-being of residents long after the 2010 event has come and gone. Apart from the physical legacy the event will leave behind, the World Cup offers incredible opportunities to educate and inspire people about sustainability. Host City Cape Town will take advantage of this prospect in rolling out communication campaigns that inspire, educate and empower in order to change behaviour.

What is for certain is that, if we are to be responsible hosts, greening cannot be a nice-to-have 2010 add-on programme, but must be a key component of hosting the event. Event greening needs to be fully integrated into the event planning process from the start, and should be integrated with the obligatory requirements for hosting the event by FIFA.

From project implementation undertaken so far, key lessons include the following:

- ¥ An appropriate budget needs to be provided for greening initiatives.
- ¥ A political champion is essential in order to secure funding and buy-in.
- ¥ The early appointment of a Green Goal coordinator is fundamental.
- ¥ Sound partnerships with NGOs, business and foundations are critical.
- ¥ Regular consultation with and involvement of key stakeholders is very important.
- ¥ Establish the baseline (status quo) for measuring different parameters.
- ¥ Appoint green ambassadors (locally and internationally) to help spread the message.
- ¥ Look beyond the tournament, and ensure long-term legacy.

Host City Cape Town cannot overemphasise the value of strong partnerships. KAS has been a partner of the 2010 Green Goal Programme from inception, and is accepted by FIFA as an official Host City Cape Town Green Goal Contributor.



KAS has also assisted by opening up communication channels with other German foundations and funding agencies. KAS is assisting financially with the compilation of this progress report, and will assist with the compilation of the final Host City Cape Town Green Goal legacy report as well.

The primary responsibility for coordinating and resourcing the greening effort for 2010 in Host City Cape Town lies with the Green Goal 2010 managers in the CoCT and PGWC. The majority of Green Goal 2010 projects have been funded by way of an allocation from National Government. However, support from various sectors of society is necessary to enable the full achievement of the remaining deliverables, as described in this progress report.

While the Green Goal Programme is progressing well, significant projects are still outstanding and will require concerted effort to implement successfully. In terms of funding, resources are still short of what is required for a reasonable greening endeavour. Overall, possibly the two most critical areas of focus to take greening forward are securing adequate funding, and ensuring the capacity to implement projects existing within the Host City structures.

The following are seen as important next steps:

¥ Active engagement with donors and other funders to secure necessary funds for remaining project implementation. This should include:

- discussions with CoCT and PGWC Departments to enlist their support for this task;
- discussions with National Government (DEA) to enlist their support; and
- direct approaches to a range of funders.

¥ Clarification of resources needed within the city to implement the 2010 Greening programme effectively, and lobbying CoCT and PGWC to optimise existing and new partnerships with other stakeholders.

