

BioRegional

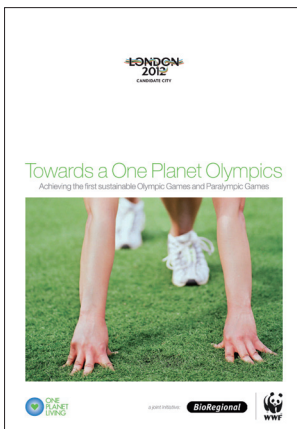
solutions for sustainability

WORKING
TOGETHER
TOWARDS A ONE
PLANET OLYMPICS



Towards a One Planet Olympics revisited

How well will the London 2012 Olympic and Paralympic Games live up to the sustainability promises made in the bid?



Towards a One Planet Olympics was published in 2005 as the London 2012 sustainability strategy. It can be downloaded at <http://tinyurl.com/ce7nnrn>

Throughout this report when we refer to London 2012 we mean all those agencies responsible for delivering the Games, including bid, build, operational and legacy stages. These include the Olympic delivery organisations (see page 13 for details), the International Olympic Committee (IOC), the UK Government, the Greater London Authority (GLA) and local authorities.

About the report authors

BioRegional is an award-winning sustainability charity that works with partners around the world to demonstrate that a sustainable future is attractive and affordable. Our work is based on practical experience gained through establishing social enterprises and delivering real-life projects with international partners.

Since working with London 2012 and WWF on *Towards a One Planet Olympics* we have continued to provide advice and practical assistance to implement the strategy. We have worked on projects including advising on footprinting and recycling demolition materials, providing in-depth sustainability advice during construction of the Main Press Centre and the delivering the Olympic Village One Planet Centre, where we are working with athletes to create a sustainability and sport legacy.

WWF is at the heart of global efforts to address the world's most important environmental challenges. We work with communities, businesses and governments in over 100 countries to help people and nature thrive. Together, we're safeguarding the natural world, tackling climate change and enabling people to use only their fair share of natural resources.

WWF's work on a One Planet Olympics for London 2012 aims to create a new sustainable blueprint for future global sports events and leave a sustainable legacy for London. We're working to influence planning, construction and business decisions around the Games and engage the large audiences of Olympic spectators and viewers to take action for the planet.

Introduction

In 2005 BioRegional, WWF and London 2012 created a framework for the most sustainable Olympic and Paralympic Games ever. Our shared vision, called *Towards a One Planet Olympics*, became part of London's bid and then part of London's promise to the world. *Towards a One Planet Olympics* started from the premise that we only have one planet and the Games in London would need to respect its ecological limits and create a legacy for sport, the environment and people.

On the eve of the Games in London, BioRegional and WWF return to the original vision and ask in this short report; how far is London 2012 toward delivering a One Planet Olympics? How many of the promises made in *Towards a One Planet Olympics* have been met or appear to be on track?

The rationale for BioRegional and WWF's involvement was that the scale of change, investment and public interest in London 2012 offered a unique opportunity to create a new blueprint for sustainability. By working with stakeholders as diverse as urban planners, big business, local communities and sports officials, as well as legions of sports fans, there were real opportunities to change consumption patterns, moving them towards more sustainable living.

Since setting out this holistic sustainability vision in 2005, much effort and commitment has been put into moving towards a One Planet Olympics. This includes the role BioRegional and WWF have played as critical friends and supporters of the vision of a sustainable Olympics. There have been challenges and setbacks but there have also been significant successes.

BioRegional and WWF intend to follow up this pre-Games report with a more detailed analysis after the Games have taken place. Of course the true test of whether the Games are sustainable will be in the years to come: the Olympic Legacy.

After reading our opinions, we actively encourage you to join the debate and conversation by visiting www.towardsaoneplanetolympics.com to share your views and challenge our assessment.



Sue Riddlestone

CEO and Co-Founder
BioRegional



David Nussbaum

Chief Executive
WWF-UK

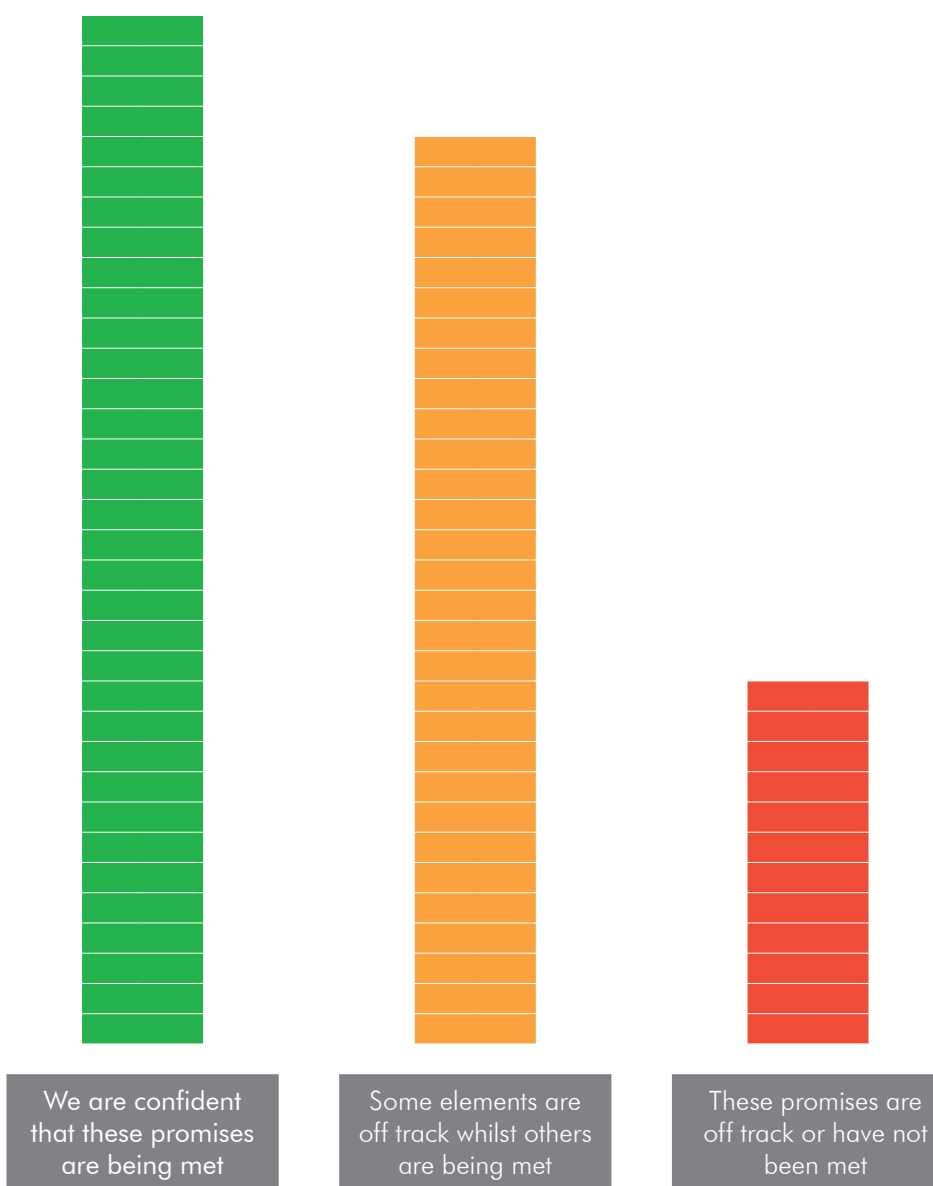
Scorecards

The scorecards on the following pages take the 76 promises made in *Towards a One Planet Olympics* and rate them as red, amber or green. Red means off track or has not been met, amber means the promise has been partially met or is not yet clear, and green means we have a high level of confidence in this promise being met.

The amber category includes many success stories, and taken together with the green assessments it is clear that the majority of the bid promises have been met.

The assessments are our opinions, based on the evidence available to us. We accept that others will hold different opinions and form different judgements. We encourage you to visit our website at www.towardsaoneplanetolympics.com to read the reasons behind our assessments and have your say.

Overall total scorecard



Scorecards by theme and stage

The scorecard below shows the 76 promises according to London 2012 Headline Themes, equivalent One Planet Living principles and the two stages of the London 2012 programme – Games and Legacy (although there is some inevitable crossover between these)

Games - from creating the new site, buildings and infrastructure (demolition and build phase) up to running the event itself (Games operation).

Legacy – taking the post-Games park, infrastructure and buildings and developing years of successful and sustainable growth.

London 2012 Headline Theme	One Planet Living Principle	Games Promises	Legacy Promises
Climate Change	Zero Carbon		
Waste	Zero Waste		
Climate Change / Inclusion	Sustainable Transport		
Climate Change / Waste	Local and Sustainable Materials		
Climate Change / Waste / Healthy Living	Local and Sustainable Food		
Climate Change	Sustainable Water		
Biodiversity	Natural Habitats and Wildlife		
Inclusion	Culture and Heritage		
Inclusion	Equity and Fair Trade		
Healthy Living	Health and Happiness		

The detailed scorecard on the following four pages provides an assessment of the individual promises made under each One Planet principle.

London 2012 Headline Theme	One Planet Living Principle	Strategy	Games
Climate Change	Zero Carbon	Reducing carbon dioxide emissions by minimising building energy demand and supplying from zero / low carbon and renewable resources	Design and construction of facilities for energy efficiency and using low carbon energy
			Basis for long-term sustainable energy
Waste	Zero Waste	Developing closed resource loops. Reducing the amounts of waste produced, then reclaiming, recycling and recovering	No Games waste direct to landfill
			Zero waste target a pivotal procurement strategy
			Closed-loop waste management
			Public information campaign to promote waste separation
Climate Change / Inclusion	Sustainable Transport	Reducing the need to travel and providing sustainable alternatives to private car use	All spectators travelling by public transport
			Low / no emission Olympic vehicles
			Olympic Park Low Emission Zone
			Carbon offset programme for international travel
			Individualised travel plans as part of accreditation
Climate Change / Waste	Local and Sustainable Materials	Materials chosen to give high performance in use with minimised impact in manufacture and delivery. Using local materials can have further benefits to local economies and in supporting traditional solutions	Reclaimed, recycled and local construction materials
			Temporary buildings made for reuse
			Healthy materials used for construction
			Materials with low environmental impact
			Robust procurement and management
Climate Change / Waste / Healthy Living	Local and Sustainable Food	Supporting consumption of local, seasonal and organic produce, with reduced amount of animal protein and packaging	Promotion of local, seasonal, healthy eating
			Promotion of links between health and food
			Partnerships established with key suppliers
			Composting of food waste as part of accreditation

Legacy Promises	Progress	Legacy Promises	Progress
Energy based on maximising energy and local renewable energy sources	Orange	Athletes' Village capable of being energy self-sufficient	Red
Energy infrastructure to be established	Red	Distributed network of heating, cooling and power serving local communities	Green
		Energy efficient sports venues	Green
Zero waste	Green	Zero waste policies extend across East London based on high recycling rates and residual waste converted to compost and renewable energy	Red
Requirement driver	Orange	Closed-loop waste management to be standard practice for major sports events	Orange
at all venues	Orange	Increased market for recycled products	Red
Promote high quality front-of-house	Green		
Transport, walking or cycling to venues	Green	Increased connectivity across and between legacy developments and neighbouring communities	Green
Car free fleet	Orange	Reduced car dependency	Orange
	Orange	Car free events policy adopted for other major events	Orange
International travel	Orange	Greater market for zero carbon transport	Orange
Part of integrated ticketing process	Green		
Construction materials used	Orange	Training and job opportunities locally in (re)manufacturing	Red
Use elsewhere	Orange	Reclaimed, recycled and local construction materials used during construction into legacy mode	Orange
Construction and merchandise	Green	Local and sustainable materials supply chains maintained	Red
Impact used for merchandising	Orange		
Payment systems implemented	Green		
Healthy and organic produce	Green	Increased markets for farmers in the region	Orange
Healthy eating, sport and wellbeing	Red	Markets, catering and retail outlets supplying local and seasonal food	Green
Caterers, suppliers and sponsors	Orange	Composting facilities integrated into closed-loop food strategy	Orange
Part of Zero Waste plan	Green		

London 2012 Headline Theme	One Planet Living Principle	Strategy	Games Deliverables
Climate Change	Sustainable Water	Reducing water demand with sustainable management of rain and waste water	Olympic Park incorporating water conserving appliances
			Dual water quality supplies to new buildings
			Recycled water used for irrigation
			Sewage and grey water fed into new waterways
Biodiversity	Natural Habitats and Wildlife	Existing biodiversity conserved with opportunities taken to increase ecological value and access to nature	Remediation of land and creation of new habitats
			Waterways rejuvenated to provide wildlife habitats
			Olympic Biodiversity Action Plan
			Buildings and infrastructure designed to support biodiversity
			Landscaping, planting and building habitats
Inclusion	Culture and Heritage	Cultural heritage acknowledged and interpreted. Sense of place and identity engendered to contribute towards future heritage	Development of Olympic Park to reflect local culture
			Facilities to acknowledge, reflect and celebrate local and global visitors
Inclusion	Equity and Fair Trade	Create a sense of community. Provide accessible, inclusive and affordable facilities and services	Fully-accessible facilities for all
			Equity and Fair Trade an integral part of management systems
			Affordable ticketing and accommodation
			Commitment to ethical business
Healthy Living	Health and Happiness	Promote health and wellbeing. Establish long-term management and support strategies	Extensive public and stakeholder consultation
			Programme to promote the health and wellbeing of staff
			Healthy internal and external environments
			Safe and secure facilities and environments
			Facilities for worship and spiritual activities

Current Promises	Progress	Legacy Promises	Progress
Water recycling, rainwater harvesting and	Orange	Long-term sustainable water supply and management	Orange
Low buildings	Green	Water efficient homes and infrastructure	Orange
Water for vehicle washing	Green	Lower Lea Valley self-sufficient in water	Red
Energy production	Green	Ongoing management of waterways to provide amenity and wildlife habitat	Green
Creation of large new urban park	Green	Net gain of ecologically valuable green space	Orange
Provide amenity and wildlife habitats	Green	Biodiversity an integral component of urban and park environment	Orange
Facilities implemented	Green	People have greater local access to nature	Green
Design to minimise ecological impact	Orange	Lea Valley 'green' corridor connected to River Thames	Orange
Design to increase biodiversity	Orange		
Design to reflect local heritage and contemporary	Red	Creation of a vibrant and diverse legacy community	Green
Design to support diversity of local audience	Green	Local and traditional industries revived to create employment and sense of identity	Orange
		Ongoing development and management of legacy community to include public and stakeholder consultation	Green
	Green	High proportion of affordable housing	Orange
Element of procurement and	Green	Mixed-use development to create sense of community	Green
Provision	Red	Opportunities for local employment and education	Orange
Transactions	Green	'Green' business hub	Red
		Fairtrade community status achieved	Green
Consultation	Orange	Healthy internal environments in homes and other facilities	Green
Health benefits of sport and exercise	Red	Improved air quality, visual amenity and soundscape	Orange
Environments in the Olympic Park	Green	Community facilities to provide healthcare, vocational training and other support structures	Green
Environments provided	Green	Legacy community management and support structures to facilitate long-term sustainable living	Green
Local development	Green		

Case studies

This short report is intended to stimulate discussion and learning about how far the London 2012 programme has delivered against its ambition to move *Towards a One Planet Olympics*.

To provide some depth and explanation of how we have identified the status of each of the promises as red, amber or green, we have chosen three topics and explain what makes them, in our opinion, a success, failure or mixture of both.

We invite you to join us and engage in the debate at www.towardsaoneplanetolympics.com.

Green

Carbon – lowering the embodied carbon footprint of the Games

A key sustainability success story has been the embodied carbon reductions of the construction of the venues in the Olympic Park and the temporary overlay for Games-time. This was driven by the consideration of the embodied impact of materials at the earliest stage followed by a carbon footprint study during the planning stages. Additionally, publishing a detailed methodology and report has significantly raised the profile and knowledge of how to measure and reduce carbon emissions for both the construction and event industries.

Challenge

To understand where the carbon emissions will arise across the programme, from build through to Games-time operations.

Targets

Reducing the embodied carbon footprint is fundamental to the One Planet approach taken for London 2012. This has underpinned the strategy and many of the materials targets set.

Progress

A carbon footprint study has been completed. A post Games footprint would be helpful in verifying if overall carbon savings have been achieved, and further inform future baselines.

Achievements

The approach taken was to consider the embodied carbon during the design phase and to undertake a carbon footprint study estimated on the best data available, to identify where the greatest areas of impact were likely to arise. The footprint scope covered the build stage through to Games operations.

- It was a surprise to realise that half of the total carbon emissions of the Games was due to the construction of the venues. This reinforced the importance of:
 - low impact materials (particularly concrete replacement),
 - designing lightweight and efficient structures i.e. design out materials
 - maximising the use of temporary buildings from the hire market, so that high embodied carbon and cost was only invested in elements that had a permanent legacy, enabling the extra capacity and facilities needed during the very short Games-time period to be reused elsewhere.
- An approximate baseline was created for the emissions for Business As Usual London 2012 programme. The published methodology and venue specific carbon studies leave a legacy for future projects.
- The key venues of London 2012 have each significantly reduced their embodied carbon in comparison to the original competition designs¹ and are lower than comparable venues elsewhere.

Stadium	38% lower than original design
Aquatics	10% lower than original design
Velodrome	15% lower than original design
Structures, bridges and highways	14% lower than original design

- This innovative approach to reducing embodied carbon also saves money.
- The lessons learned in the building of the Games venues have had a significant impact on the practice of the British construction industry, inspiring a positive move to more sustainable building.
- A notable finding is that there was a direct correlation between the degree of efficiency (low embodied carbon) in the final venue, and how early on this was targeted as part of the design brief. Hence, whilst all venues studied managed relative savings, the overall level of efficiencies achieved varied significantly between them. For example, the legacy mode Aquatics centre will have 10 times more embodied carbon per seat than the Velodrome.

1. Reducing embodied carbon through efficient design, Learning Legacy Case study, 2012. <http://tinyurl.com/d89dhw5>

- Lower impact concrete mixes were achieved across the park by adopting central procurement from the provider who could demonstrate the most efficient production plant and best capacity to support cement replacement. This resulted in an estimated 30,000 tonnes CO₂e or 24% reduction in embodied carbon. This was achieved by including an average of 32% cement substitution alongside other measures such as super plasticisers and sustainable transport.

Learning

Considering the carbon footprint early on enabled London 2012 to focus on the largest impacts first and helped deliver significant savings in embodied carbon as a result. The longer term benefit of this has been to create a replicable carbon footprint methodology and benchmarks for future projects.

Perhaps most importantly, this process has developed publicly available technical case studies of how reducing embodied carbon is entirely compatible with reducing cost – <http://learninglegacy.london2012.com>.

Red

Energy – renewable energy and wind turbine

Staging the world's largest event uses energy, and a lot of it. The government has committed to reducing the UK's carbon emissions by 80% by 2050 and energy production makes up the largest single element of our national carbon footprint. The London 2012 programme represented a huge opportunity to demonstrate how this can be achieved.

Unfortunately this key area has suffered failures that will have significant implications for the sustainability performance of the London 2012 Games and long term into legacy.

Challenge

Staging the Olympic Games whilst reducing emissions from energy production and laying the foundations for a sustainable energy legacy.

ODA and Legacy Corporation Targets

- 50% carbon reduction for the operation of the built environment by 2013
- 20% of energy to come from onsite renewable sources.

For LOCOG the target is that 20 per cent of Olympic Park electricity requirements at Games-time will come from new local renewable energy sources.

Progress

It is likely that ODA and the Legacy Corporation will meet the 50% carbon reduction target but neither ODA, LOCOG nor the Legacy Corporation will meet the challenge to generate 20% of their energy from onsite renewables.

Achievement so far

At the centre of the plan for how to meet the energy targets were two key elements: an onsite wind turbine and a combined heat and power (CHP) energy centre running on renewable fuel. The former was not built and the latter is running mostly on a fossil fuel (natural gas). The 50% carbon reduction target will be met only by investing in offsite retrofit of energy saving features in neighbouring homes (or similar).

Learning

The failure to build a wind turbine is attributed to changes in health and safety legislation. However, with the right planning and will this could possibly have been overcome. Once it became clear that the wind turbine would not be built, there was a subsequent failure to innovate and find an alternative way to increase renewable energy. As a consequence only 9% of energy on-site will be renewable. The failure to achieve this ODA-led target has a knock on effect for LOCOG and the Legacy Corporation, who are both dependent on the energy infrastructure handed over.

The decision to invest in local off-site retrofitting is welcome as a means of delivering local community benefit and reducing energy consumption, but not as an alternative to onsite renewables. Retrofitting and carbon offsetting projects were originally rejected by London 2012, having been used at scale by the Vancouver Winter Olympics, as a less rigorous and less innovative way of carbon reduction. Retrofitting programmes will be increasingly common in the UK with additional support and funding mechanisms emerging, whereas real opportunities to build renewable energy capacity are much rarer – how often do government sponsored projects of this scale and nature arise?

London 2012 missed a core opportunity to demonstrate leadership, has failed to lay the foundations of a renewable energy legacy for the Olympic Park developments and sent out a negative signal to the market about onshore wind turbines in urban locations.

Who's who?

ODA is the Olympic Delivery Authority who built the Olympic Park

LOCOG is the London Organising Committee of the Olympic Games who stage the Olympics and Paralympics.

The Legacy Corporation is the London Legacy Development Corporation who are responsible for the Olympic Park and surrounding areas after the Games are finished.

Waste – highs and lows

In terms of activities that generate a lot of waste, both the construction and events industry have to be very near the top of the scale. The enormous scale of the ODA build project combined with LOCOG's huge Games-time event present an unprecedented waste challenge. And yet, London 2012 chose to target the highest levels of resource efficiency and waste management.

On the one hand, there has been a huge success in delivering against an ambitious waste strategy; all the core targets are either achieved or on track. On the other hand the wider opportunity, and stated ambition, to be a catalyst for far wider changes has been missed.

Challenge

Staging an Olympic and Paralympic Games that pushes waste performance to a new level across demolition, construction and Games-time operation, and leaves an improved waste infrastructure in legacy.

ODA targets

- demolition phase - greater than 90% reuse or recycling
- build phase - greater than 90% reuse, recycling or recovery.
(see panel on page 16 for definitions)

ODA targets progress

These targets have been substantially exceeded with figures of 98.5% and 99% respectively.

ODA targets achievements

The successes of meeting the ODA's targets are laid out on the London 2012 learning legacy website in two case studies: *Construction waste management on the Olympic Park* and *Demolition Waste Management on the Olympic Park* (see: <http://learninglegacy.london2012.com>).

ODA targets learning

Important to meeting ODA's targets were a number of actions including:

- a robust environmental management system,
- working with contractors and waste companies to enable recycling to take place, and
- a procurement system that considered material type and building methods as tools to reduce the creation of waste.

LOCOG targets

The key Games-time promise is a target of zero waste directly to landfill ('direct' allows for the indirect waste which will emerge from material left over after an energy from waste process has taken place).

LOCOG targets progress

LOCOG's actions to date demonstrate a genuine intention to try and deliver this challenging target.

LOCOG targets achievements

Examples of best practice include:

- Consumer messaging: collaboration with Coca-Cola who have used their marketing knowledge to create an engaging consumer-facing campaign on site with clearly marked bins and messaging.
- Supplier collaboration: working with Heineken to develop a new recyclable plastic bottle, the first of its kind, which can be included in the recycling bins available at London 2012.

Integrated thinking involving suppliers, commercial partners and the public is a welcome model for others to follow.

LOCOG targets learning

LOCOG's Games-time waste strategy *Zero Waste Games Vision* is an exemplary blueprint for other event organisers to follow. It demonstrates a clear understanding of the need to work from one end of the supply chain to the other, and at the same time engage the visitors to London 2012.

Legacy targets

Consider the following five promises made in *Towards a One Planet Olympics*:

- zero waste policies extend across East London based on high recycling rates and residual waste converted to compost and renewable energy,
- increased market for recycled products,
- training and job opportunities locally in (re)manufacturing,
- local and sustainable materials supply chains maintained,
- 'green' business hub.

Legacy targets progress

We are not confident that any of these promises will be met, certainly not in time for the Games, or in legacy. What all these have in common is that they relate to activities happening outside of the Olympic Park and would have required a higher level of engagement with local reuse networks and other appropriate organisations. Whilst the challenge in delivering this cannot be underestimated, the huge scale and manpower of London 2012 could and should have made better progress.

Legacy targets learning

An example of missed opportunities comes from BioRegional's experience working on site to support a reclamation approach to demolition. Whilst a high level of recycling was achieved, some of this came at the expense of the reuse rate of less than 1%; considerably below industry best practice. Having a joint target (reuse and recycling) did not reinforce adopting the waste hierarchy, hence the simpler and more controllable options of recycling and recovery took precedence. For more information see *Reuse and Recycling on the London 2012 Olympic Park* (<http://tinyurl.com/c3ezlk9>)

Reuse, recycling and recovery

Reuse means using a material or product again without changing it.

Recycling means processing a waste material into a new useful material.

Recovery through energy from waste means generating energy from waste products, normally through incineration.

Summary

In this report we have asked how far London 2012 has moved towards a One Planet Olympics. Our assessment shows that in many areas the promise of moving towards a One Planet Olympics is on track, but that in some significant areas failures have occurred. We have highlighted examples of each in our case studies above.

The successes demonstrate that London 2012 has been, and can continue to be a powerful opportunity to move towards more sustainable ways of living.

- The use of carbon footprinting and carbon management across decision making has been a decisive step with the potential to become a standard for all major projects.
- The use of temporary structures, lightweight venues, sustainable materials and 'legacy-proof' design shows leadership with strong potential to be emulated at future sporting mega-events.
- It was the first time that food had been included in the sustainability strategy of any Games, establishing a precedent and a template for others to follow.
- We are optimistic about the number of family homes and parkland space being created in legacy.

There have also been disappointments and failures.

- The failure to meet the renewable energy targets set out in the bid is disappointing. Not only did this leave a significant 'hole' in London 2012's carbon reduction strategy, partially addressed through ad hoc remediation, it also sent out an unfortunate signal regarding the difficulties of incorporating renewable solutions in UK projects.
- The relationship between the Olympics and some commercial sponsors and suppliers has not realised its potential for creating sustainable change. We recognise the complexity of contractual arrangements which can involve both London 2012 and the IOC but feel the opportunity to put relationships with sponsors and suppliers on a greener footing has not been fully grasped. These commercial arrangements need to be reviewed to ensure that future Games are able to deliver greater gains for sustainability.

We are proud to have been part of setting out the vision and strategy for sustainability for London 2012 and of the role we have played in helping to deliver it. We hope that this brief review will encourage those involved in delivering London 2012 and the Legacy to redouble their efforts to deliver the vision set out in Towards the One Planet Olympics.

London 2012 set out with the powerful ambition of being an event with positive environmental, social, sporting and economic impacts. London 2012 is the Olympics that sets a new sustainability standard for future Games; we just wish London 2012 had been able to push sustainability a little faster, a bit higher and with an even stronger focus on changes beyond the Olympic Park.

Please join us and engage in the debate at www.towardsaoneplanetolympics.com. We look forward to hearing your views.

Further reading

This is a deliberately short report. Post-Games BioRegional and WWF will produce a longer review containing more details and evidence from the experience of the Olympics and Paralympics. Below are some ways you can learn more and join in the conversation.

Join the conversation

We want you to join in the conversation. How far do you think London 2012 moved towards a One Planet Olympics?

Have your say: www.towardsaoneplanetolympics.com

What is One Planet Living?

One Planet Living is a positive vision of a world in which we are living happy, healthy lives, within the natural limits of the planet - wherever we live in the world - and we have left sufficient space for wildlife and wilderness.

One Planet Living is based on a fair-share accounting model which determines what resources the world can naturally regenerate and sustain. It is a sustainability framework containing ten principles developed from BioRegional's practical experience of implementing sustainable communities, products and services.

See: www.bioregional.com/oneplanetliving for an overview showing how the One Planet Living approach is being used around the world.

See: www.panda.org/lpr for the 2012 WWF Living Planet Report.

Commission for a Sustainable London (CSL) 2012

CSL 2012 is a unique body set up for London 2012 which provides assurance to the Olympic Board and the public on how the bodies delivering the London 2012 Olympic and Paralympic Games and legacy are meeting their sustainability commitments. Their reports are an invaluable tool in helping assess the sustainability of London 2012.

See: www.cslondon.org. This is their home page from where you can explore news, publications and numerous case studies.

London 2012 Reports

There are three key delivery bodies relating to London 2012. The Olympic Delivery Authority (ODA) who build the venues and parkland, the London Organizing Committee of the Olympic Games (LOCOG) who stage the Olympics and Paralympics and the London Legacy Development Corporation who are responsible for the Olympic Park in legacy and surrounding areas.

See: www.london2012.com/about-us/sustainability for an overview of the sustainability work of ODA and LOCOG.

See: <http://tinyurl.com/738p9ek> for the latest sustainability review.

See: <http://tinyurl.com/bvmcvwm> for the Legacy Corporation's corporate sustainability strategy.

Learning Legacy

London 2012 has established a website which contains a number of case studies from the build phase. The UK Green Building Council (UKGBC) seminars set out the technical aspects of the lessons learned.

See: <http://learninglegacy.london2012.com> for London 2012 case studies.

See: <http://tinyurl.com/cwme2b4> for forthcoming and past learning legacy events.

