

LEGACY OF THE LONDON 2012 OLYMPIC GAMES

by Lindsay Frost

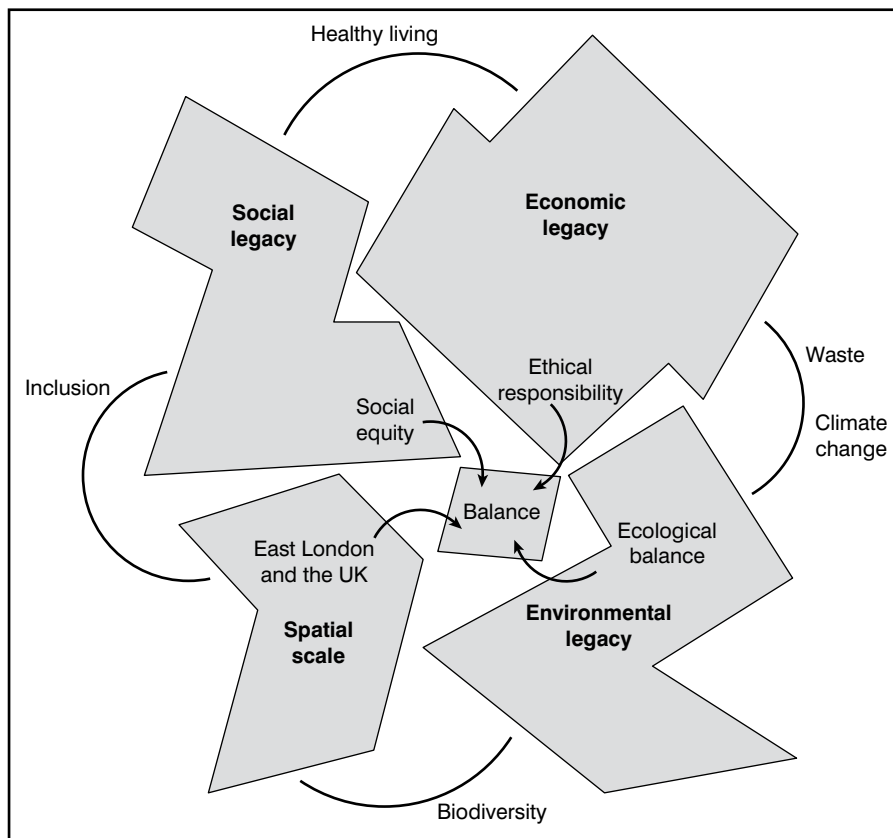


Figure 1: Sustainability for London 2012

MODERN OLYMPIC GAMES are known for spending large sums of money to create spectacular events involving constructing large stadia and new infrastructure. The final cost of the highly successful London 2012 event is likely to be between £12 billion and £20 billion. However, sustainability (Figure 1) is rarely a top priority, and while financial profit may not be expected, the impacts on natural, social and economic environments often should have been considered more closely. The Olympic Charter was amended in 1996 to include sustainability as a key objective.

A major theme of the London Olympic bid was to create a 'green' Games – a 'One Planet

Olympics', with the Olympic Delivery Authority (ODA) producing a legacy of natural,

social and economic benefits for East London and beyond. The guidelines included the ten ways of achieving sustainability provided by Greenpeace for the Sydney Games, with the aim of avoiding the problems of previous events (Figure 2). The ODA planned for the long-term improvement of the Olympic Park area with two legacy organisations: the Commission for a Sustainable London 2012, and the London Legacy Development Corporation.

Five sustainability themes were identified: climate change, waste, biodiversity, inclusion, and healthy living (Figure 1), with the ODA and London Organising Committee of the Olympic and Paralympic Games (LOCOG) working with BioRegional and WWF. These provided guidelines for preparing the site, the construction and landscaping, and the creation of Queen Elizabeth Olympic Park after the Games. Part of the legacy is to help deprived communities in East

Location	Year	Sustainability problems and issues
Los Angeles	1984	Political boycott; no new facilities for local people
Seoul	1988	Westernisation of the country; protests sternly dealt with; poverty hidden
Barcelona	1992	Tourist loss during Games; too many hotel rooms created
Atlanta	1996	Failure of transport infrastructure; neighbourhoods affected by loss of housing and relocations
Sydney	2000	Facilities unused and derelict afterwards; Stadium Australia and Superdome unprofitable after Games
Athens	2004	Construction delays and increasing costs led to bad publicity and image; most venues unused after Games
Beijing	2008	Air pollution very high; human rights issues overlooked
London	2012	Renewable energy target not met; waste infrastructure target missed

Figure 2: Summary of problems and issues arising at recent Olympic Games

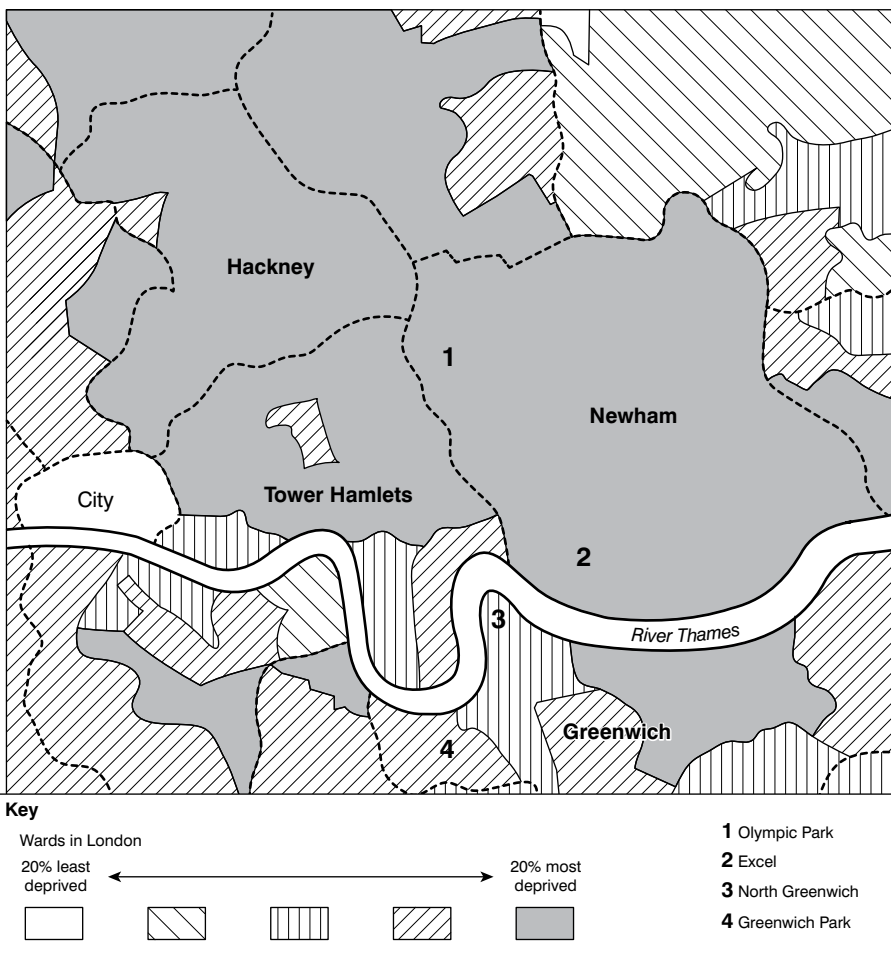


Figure 3: Deprivation in East London boroughs IMD average scores 2010

London, and to promote sport and better health across the UK. Sponsors and partners had to fully incorporate sustainability principles in their activities.

Location and aims

The Olympic Park is located in the Lea Valley, north of London Docklands (Figure 3), and is mostly within the borough of Newham. Initial regeneration of this part of East London started in 1981 after the closure of the docks and deindustrialisation. The area has high levels of poverty, people with limited qualifications and high unemployment, along with derelict land and buildings, low house ownership, a lack of affordable housing, contaminated soil, and polluted waterways. These socio-economic features made it a suitable site for the Olympics, and there were also brownfield sites for the ODA to use (Figure 4, aim 3). In 2010, 15 wards in Newham, Tower Hamlets, and Hackney were among the 25 most deprived

areas of London. Stratford is a public transport node, and this was improved before the Games ready for the 9 million spectators that were only allowed to reach the site by public transport (Figure 4, aim 4). Stratford was also close to other key London locations that could be used for Olympic events.

Economic legacy

Over 7,000 temporary jobs and 5,000 construction jobs were created, suitable for the low-skilled workers in Newham, but many were short term and only 20% were recruited from the local area; it is not yet known how many long-term new jobs may be created. About 380 companies, employing 11,000 people, were relocated to make space for the Olympic Park, and even though some moved nearby to better premises, many others were relocated elsewhere in London, which made it difficult for some local people to keep their jobs. Two hundred buildings were demolished and the rubble

Olympic and Paralympic Games Strategic Objective 3: To maximise the economic, social, health and environmental benefits of the Games for the UK, particularly through regeneration and sustainable development in East London.

Figure 4: WWF Sustainable Aims for London 2012

1	Avoid building new sports facilities
2	Look after plants and animals
3	Use brownfield sites only
4	Develop a good public transport system
5	Recycle and reduce waste
6	Reduce energy use and use renewable energy
7	Reduce water use and use grey water
8	Clean contaminated areas and reduce pollution
9	Build affordable homes for local people
10	Ensure that everyone in the local community benefits

was used for foundations in the Olympic Park, while metals were recycled.

A great deal of expertise was developed during the design and construction of eco-friendly buildings, the organisation of a world event, and public transport consultation, enabling British businesses to establish a worldwide reputation and create business opportunities. Communications technology has been left in place to develop innovation centres in the Olympic Park area, supporting small and medium-sized businesses. Apprenticeships and training opportunities will develop for local young adults, as well as opportunities for managers and researchers, so creating a socially balanced community (Figure 4, aim 10). The skills gained by Olympic workers will benefit them in their other employment roles. However, the future is dependent on private investment, which may be difficult to attract during a world recession, so the full benefits of the Olympics may not be seen for years.

However, the regeneration of East London has been accelerated and the old industrial image has been improved. During the Olympics an estimated £2.1 billion was made from tourism in London, and £10 billion for the whole of the UK economy.

Social legacy

Some people were forcibly moved from their homes. Although most were relocated nearby and paid compensation, some people were worse off. House prices increased by at least a third in the area once London was awarded the Games, and letting agents increased rents dramatically during the Olympic period, which made housing deprivation worse (affordability). However, a lot of new housing is still to be built (5,000) and the Olympic Village will eventually provide 3,000 flats for local people, half of which will be low-cost housing (Figure 4, aim 9). Local people remain concerned about the lack of family and housing association accommodation.

The East Village will become a significant new community within London, surrounded by world-class sports venues, enviable shopping facilities and excellent transport links.

R. Luck, ODA, quoted in *Evening Standard*,
17 September 2012

The Aquatic and Olympic Stadia will remain after the Games in a smaller capacity, which will allow them to be used by local people as well as for future sporting events. One of the main benefits will be the Queen Elizabeth Olympic Park (2.5 km²) itself, which, together with the new Westfield shopping facilities, will become a central part of the East London community. These attractions may make the area busier (people and traffic) in the future. Across the UK many people of all ages are now interested in a wider variety of sports. The sporting success of the GB team raised national pride and positivity.

Environmental legacy

Derelict land and buildings were removed from the Olympic



Figure 5: Derelict buildings in East London

Source: Photo by Lindsay Frost

Park site, although some remain around it (Figure 5), and the area was landscaped with 4,000 trees and 74,000 plants with wildlife habitat areas – especially wetland environments (300,000 wetland plants), to boost the biodiversity and ecology of the Lea Valley and provide a wildlife corridor from Hackney Marshes to the Thames (see Figure 7 on page 4). Up to 4,000 newts, 300 lizards, and 100 toads were moved to new habitats before construction started (Figure 4, aim 2). The wetland habitat areas are also overflow areas for the River Lea in times of flooding, protecting 4,000 homes.

Two million tonnes of soil contaminated by toxic industrial chemicals and landfill were thoroughly cleaned by 2008 in a ‘soil hospital’ and then re-used in the landscaping of the Olympic Park (Figure 4, aim 8); 50 electricity pylons were removed and cables put underground (6 km of tunnels); canals were cleared, cleaned and revitalised as ‘green’ corridors (£12 million was spent between 2006 and 2012 removing 30,000 tonnes of rubbish); and polluted groundwater was treated. All these measures improved the natural environment and also improved the local living space.

Several stadia were temporary and designed to be removed after the Games (e.g. Basketball Arena), and some parts will be used in Rio in 2016 (Figure 4, aim 1). Railways and canals were used to bring materials to the site

and to take waste away from it, reducing carbon dioxide emissions by 80% (Figure 4, aims 5 and 6). The Velodrome design minimised the use of materials (e.g. a cable structure), with daylight panels in the roof to reduce the need for artificial lighting, and a dip in the wooden roof reduced the space to be ventilated or heated. The wind turbine that was to be included to generate renewable energy was not built because of planning complications, so only 9% of energy use was from renewable sources instead of 20%. A new target of 11% was set, which will be achieved by using solar panels and two small CHP (combined heat and power) stations to be built on site. The ODA is also investing £1 million in insulating local houses and schools. WWF believes that LOCOG has missed its target for waste recycling, especially after the Games.

Conclusion

Immediately after the highly successful London 2012 Games finished, work started on making the area safe and suitable for use as a public open space, with the removal of some venues, and the building of more bridges and cycle routes – this will cost £490 million over two years. The north part of the Queen Elizabeth Olympic Park, with new cycle facilities and parkland, is due to open in mid-2013. The reduced Olympic Stadium and Aquatics Centre, the Orbit, the construction of 800 terraced houses, making the canals available for leisure craft, and further decontamination of soil, are to be completed by mid-2014.

Financial costs were high, globalisation was evident in the sponsorship, and according to BioRegional and WWF 12 legacy targets (out of 76) will not be met at all. However, the Games were a success in terms of organisation and the medals won by Team GB. Thirty-four legacy targets were met, and only time will tell if more can yet be achieved.

Activities

1 Study the statistics in Figure 6. Which type of graph would be most appropriate to show this information?

Figure 6: Estimated costs of Olympic Games 1984 to 2012

Year	Location	Cost (US\$ billion)
1984	Los Angeles	1.2
1988	Seoul	3.7
1992	Barcelona	7.9
1996	Atlanta	2.4
2000	Sydney	4.2
2004	Athens	14.4
2008	Beijing	50.8
2012	London	18.2

Data averaged from several sources

2 Study the following extract and then summarise in two sentences how sustainable the Sydney Olympics was in 2000.

Dubbed the 'Green Games', the Sydney 2000 Olympic Games were the most ecologically responsible in history. Various environmentally friendly technologies and processes were incorporated into the planning and operations stages. Widespread use of solar energy at the Olympic Village and low-emission public transport were but a few examples. These Games were used as an innovative platform to showcase some of the latest developments in green technologies. The transformation of the Homebush Bay area from a polluted, industrial wasteland to a revitalised complex of venues, wetlands and parklands by the NSW State Government is one of the most notable environmental achievements, and legacies, of the Sydney 2000 Olympic Games. On World Environment Day 2001 the United Nations awarded Sydney the Global 500 Award for environmental excellence.

Philippe Furrer, 2002

3 Explain why East London, and Stratford in particular, was chosen as the site of the Olympic Park.

4 Study Figure 4, showing the list of Greenpeace's sustainable aims. (a) For each aim write down one thing that the London 2012 Olympic Games did to meet the aim.

(b) Write a two-sentence summary explaining how well the London organisers did overall in meeting these 10 aims.

5 (a) Identify two positive and one negative economic legacy factors arising from the London Olympic Games.

(b) Identify two positive and one negative social legacy factors arising from the Olympic Games.

(c) Identify two positive and one negative environmental legacy factors arising from the Olympic Games.

(d) Which is the best positive legacy factor of all? Why?

(e) Which is the worst negative legacy factor of all? Why?

6

This area didn't have a very good reputation. There was a lot of anti-social behaviour around here. There was prostitution. The canal was a dumping ground for shopping trolleys, cars and the occasional body.

Opinion of a Stratford tower block resident, quoted by M. Collins in *Evening Standard*, 7 June 2010

Describe how you think the legacy of the Olympics will change the lives of local people, such as this Stratford tower block resident.

7 Who do you think will benefit the most in the long term from the Olympic legacy: local people in East London, or the country as a whole? Explain your answer.

8 Study Figure 7, which shows a view of the Olympic Park. *Either* write a detailed description of all the features that you can see, *or* annotate a copy of the photograph to show the features that you can see.



Figure 7: The new Olympic Stadium beside the River Lea

Source: Photo by Lindsay Frost

9

The Olympics will create a stunning green oasis in East London that in legacy will join the long list of world-famous parks London is so lucky to have. Nowhere else will features like the great British garden, wetlands and new wildlife habitats sit side by side with world-class sports facilities. This will be a destination that the whole nation can be proud of.'

Tessa Jowell, former Olympics Minister

Study Figure 2 and complete your own research. Do you think London has left a better legacy after 2012 than other Olympic cities have done before? Explain your judgement.

10 Study Figure 8.

(a) Present this information on an outline map of the world, using proportional flow lines.

(b) Describe and explain the pattern shown.

Figure 8: Tourist visitors to London during the Olympics

Country of origin	% of visitors
USA	19.0
Germany	8.2
Australia	6.0
Italy	4.3
Canada	3.7
Russia	3.4
France	2.9
Netherlands	2.9
UK	2.6
Brazil	2.4
Rest of the world	44.6