

Public participation in Environmental Impact Assessment (EIA) and Major Sports Events: A Comparative Analysis of the London 2012 Olympic Games and the Rio 2007 Pan American Games

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Gisele Silva Pereira¹, Suzana Maria De Conto²

ABSTRACT

This paper explores public participation in environmental impact assessment (EIA) and the decision making in the context of major sports events and their associated infrastructure in Brazil and England. The methodology is based on detailed case study analysis involving document analysis and interviews with key stakeholders. The results demonstrated that there is evidence that public participation within the EIA process informed the decision making and planning process for London 2012 and for the Pan American Village of the Rio 2007 Games. Finally, a practical recommendation for the Brazilian context and recommendations for further research are made.

Keywords: Environmental Impact Assessment. Public Participation. Major Sports Events. Olympic Games. Pan American Games.

¹ **Gisele Silva Pereira** - PhD in Environmental Engineering; senior lecturer in the Department of Tourism at Federal University of Pelotas. E-mail: gisele_pereira@hotmail.com

² **Suzana Maria De Conto** - Doctor in Education; senior lecturer in the Post-Graduate Programme in Tourism at University of Caxias do Sul. E-mail: smcmande@ucs.br

RESUMO

Participação pública na Avaliação de Impacto Ambiental (AIA) e megaeventos esportivos: uma análise comparativa dos Jogos Olímpicos de Londres 2012 e dos Jogos Pan Americanos do Rio 2007 - Este artigo explora a participação pública na Avaliação de Impacto Ambiental (AIA) e a tomada de decisão no contexto de megaeventos esportivos e a infraestrutura associada no Brasil e na Inglaterra. A metodologia baseia-se em estudo de caso envolvendo análise de documentos e entrevistas com atores-chave. Os resultados demonstraram que há evidência de que a participação pública integrante do processo de AIA informou a tomada de decisão e o processo de planejamento para Londres 2012 e para a Vila Pan Americana dos Jogos do Rio 2007. Finalmente, uma recomendação prática para o contexto brasileiro e recomendações para pesquisas futuras são destacadas.

Palavras-chave: Avaliação de Impacto Ambiental. Participação Pública. Megaeventos Esportivos. Jogos Olímpicos. Jogos Pan Americanos.

INTRODUCTION

Despite the growth and popularity of major sports events, Ma et al. (2011) argue that research on event impacts, from the tourism perspective, has frequently been focused on the economic dimension rather than on the social and environmental dimensions, which have received limited consideration from researchers. On the other hand, the literature on EIA tends to concentrate on large development proposals, such as those related to infrastructure projects (e.g. energy, transport, water, waste, etc), providing limited reference to major sports events and their associated infrastructure, which suggests that there is not much research undertaken on major sports events in the scope of EIA.

Within this context, one specific area that has received inadequate attention from researchers is the subject of environmental impacts of major sports events (see Reis & Da Costa, 2012; 2011; Collins et al., 2009; 2007; Jones, 2008; May, 1995 for examples). In particular, the literature on tourist events (including major sports events) and EIA is limited in terms of the relationship between public participation and environmental assessment procedures in the decision making of major sports events and their associated infrastructure.

Following this, the research presented in this paper aims to examine the way public participation was carried out within EIA and how it informed the decision making and planning process in the context of major sports events in Brazil and England. In order to achieve such aims, the paper starts by discussing the issue of public participation in environmental assessment then moving to consultation and participation in EIA in England and Brazil in a comparative perspective. Subsequently the methodology used in this study is explained. Key findings of the Brazilian and English case studies are then presented followed by a comparative analysis of the results. Finally, conclusions are drawn and a practical recommendation and recommendations for further research are highlighted. For the Brazilian context such

recommendations could be particularly timely and helpful since Brazil will host the Summer Olympic Games in 2016.

PUBLIC PARTICIPATION IN ENVIRONMENTAL ASSESSMENT

Public participation is an essential element of the EIA process (Weston, 1997; Hartley & Wood, 2005) and as Wood states “EIA is not EIA without consultation and participation” (2003, p. 275). According to the International Association for Impact Assessment (IAIA), public participation in impact assessment “may be defined as the involvement of individuals and groups that are positively or negatively affected by, or that are interested in, a proposed project, program, plan or policy that is subject to decision-making process” (Andre et al., 2006, p. 1). For Lawrence (2003, p. 326) it is “a generic term for all types of activities designed to include the public in the decision-making process, prior to and after a decision”.

Although this section focuses on public participation in the context of EIA, it should be noted that the concept of public participation as well as its theoretical basis transcends the fields of EIA and environmental assessment. There is a strong link between strategies of participation and approaches to democracy as Carpenter & Brownill (2008) observe. Before examining such a relationship, it is important to explore the issue of governance which characterizes the different approaches to democracy. In terms of models of governance, Healey (2006) points out that there are four models which are widely used to describe Western governance systems: representative democracy, pluralist democracy, corporatism and clientelism.

According to Healey (2006), representative democracy is the model of governance in which citizens elect their representatives, the politicians, who articulate the public interest on any issue. Pluralist democracy is a similar model; however politicians are more involved in arbitrating between interests of different groups than articulating the public interest. The corporatists model recognises the public interest as the interest of the major businesses, articulated to national level organisations. Finally, the clientelism model involves using the governance structure for allocating and distributing resources in a hidden way between politicians and government offices (Healey, 2006).

Another form of democracy is a more participatory one called deliberative democracy (Holder, 2004; Carpenter and Brownill, 2008). At its heart is the Communicative Theory of Habermas (Holder, 2004), which means deliberative democracy emphasises agreement between a range of stakeholders through negotiation by using communicative rationality (Carpenter & Brownill, 2008). Supported by this approach is the view of participation as an opportunity to engage and involve the public in the decision-making process proactively. Lawrence (2003) outlines how public involvement in environmental assessment includes not only informing the public but also integrating their views and interacting with them before making decisions.

This differs from the notion of public participation built on the approach of representative democracy which is characterised by minimum engagement with the public as elected politicians are entitled to make decisions in the name of citizens who elected them (Carpenter and Brownill, 2008). Aligned with this perspective is the basic assumption that participation in environmental assessment contributes to the validity of decisions as the key issues are examined against the views of those who have a knowledge regarding the area or have an interest in the project (Holder, 2004).

With regard to decision-making, it should be highlighted that a remarkable distinction between representative and deliberative approaches to democracy is that the deliberative form provides an alternative to the model of instrumental rationality of decision-making, which is largely recognised by its limited access to public participation (Holder, 2004). Additionally, Petts (1999) emphasises that the use of more collaborative approaches to participation in EIA is a result of the challenges posed regarding its rational and technical basis.

Following this logic there are clear similarities between the ideal of deliberative democracy (including its approach to public participation) and the current strand of planning theory: collaborative planning (Carpenter & Brownill, 2008). It seems that the communicative turn has influenced a variety of fields across planning, environmental assessment and public participation, to name a few which are relevant for this study. As Petts (1999, p.165) explains: “it is apparent from an examination of the use of new participatory approaches that they are needed because of the failure of formal decision-making processes adequately to deal with public issues”.

Rydin and Pennington (2000) point out that the collaborative planning of Healey (1997) contributes both to a more inclusive and effective planning system and to a more communicative/deliberative democracy. In Tewdwr-Jones and Allmendinger’s words (2002, p. 214), the collaborative turn in planning “is not simply a theory but a ‘world view’ based on participatory perspective of democracy [...]”. In terms of participation in EIA, Lawrence (2003, p. 387) indicates that collaboration “is inclusive and open, involves multiple perspectives and forms of knowledge, is jointly undertaken by stakeholders, and it is directed toward and guided by substantive environmental management, environmental justice, and sustainability ends”. Furthermore, for Holder (2004) the adoption of more collaborative forms of planning reflects the deliberative ideal in relation to environmental democracy and sustainability in line with the principles of the Agenda 21.

Associated with the arguments of Lawrence and Holder is the substantive purpose of EIA as element of social learning in the context of sustainable development. In order to achieve such a purpose, public participation plays a key role in the sense that it can foster social learning between stakeholders. By identifying four components (public involvement, communications, mutual education and negotiations) capable of contributing to making EIA a more collaborative process, Lawrence (2003) claims that EIA should be conceived as a learning process and as an opportunity for all stakeholders involved to enhance their knowledge “about and through the EIA process” (p. 386). This is in accordance with Cashmore’s observation regarding the EIA literature that suggests that the most contemporary substantial influence of EIA is in the sense of raising environmental awareness among stakeholders (Cashmore, 2004).

Here it is important to highlight the difference between consultation and participation. Participation is about engagement and active contribution to the decision-making process; while consultation is about asking for information and comments regarding proposals (Petts, 1999). Consultation is in accordance with the procedural aspect of EIA and participation with the substantive (collaborative/deliberative) purpose of the EIA process. In fact, according to the deliberative ethic, participation is one of the steps to empower citizens in the decision-making process. Arnstein’s ladder of participation (Petts, 1999) describes the different degrees of participation evolving from manipulation, information provision, consultation to participation, delegated power and citizen control. However, as Petts (1999) observes, it is the level of participation that many planning and EIA processes have supported which means that the upper levels (delegated power and citizen control) remain little explored in practical terms.

Other relevant models of participation in EIA are proposed by Cashmore (2004) and Bartlett and Kurian (1999). The participation model of Cashmore (2004) places stakeholder involvement at the centre of the scientific model, which means stakeholders have a more substantial, inclusive and deliberative role with this model. According to Shepherd and Bowler (1997), stakeholder involvement is perceived as a substantive, proactive process rather than as a reactive, procedural exercise. Additionally, Richardson (2005) states that, from a planning perspective, participation is being considered more in relation to a procedural issue rather than a value one. In line with this model, participation is necessary because there is a need to convert decision-making in the environmental field into a more responsive and transparent process, “democratising democracy, if not deliberative democracy”; and to embrace the multitude and plurality of values and priorities within society (Cashmore, 2004, p. 413).

Cashmore’s participation model has strong links with his environmental governance model which aims to empower stakeholders in order to achieve more sustainable forms of development. According to this perspective, EIA should encompass all the characteristics of civic science by being inclusive, deliberative and participatory. Moreover, EIA “is also an acutely political and moral process, used to promote social justice and equality, to make decision-making transparent and institutions accountable, to minimise losers, and to realise community self-governance” (Cashmore, 2004, p. 413).

The pluralist politics model of Bartlett and Kurian (1999) aims to achieve a higher degree of public participation in the decision-making process. According to its proponents, EIA is seen as a tool to promote more democratic processes and practices by engaging with citizens (Bartlett & Kurian, 1999). In addition the authors point out that an EIA process that embraces public participation will be ensuring that environmental issues are given weight in the decision-making process (Bartlett & Kurian, 1999).

Both models of participation plus the environmental governance model of Cashmore are strongly associated with the approaches of deliberative democracy and collaborative planning, all of which have communicative rationality at the heart. Several aspects of Bartlett and Kurian’s models are consistent with concepts of communicative rationality and deliberative democracy (Bartlett & Kurian, 1999). In terms of Arnstein’s ladder of participation, both models could be located at the upper degrees as they foster citizens’ engagement and empowerment in order to build a more emancipatory society.

Consultation and participation in Environmental Impact Assessment (EIA) in England and Brazil - In terms of consultation and participation, in England there is the European Directive 2003/35/EC which aims to strengthen provisions for public participation in environmental assessment of Member States (Holder, 2004; Hartley and Wood, 2005). According to Hartley and Wood (2005), the European Directive 2003/35/EC addresses the principle of public participation of the Aarhus Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters, since the European Community signed the Convention in 1998. It could be argued that the planning reforms set out by the Planning and Compulsory Purchase Act 2004, which establishes Statements of Community Involvement (SCIs) in response to the importance of placing stakeholder engagement at the core of the English planning process, are also in line with the principles for public participation in the European Directive 2003/35/EC and of the Aarhus Convention.

Turning the attention to Brazil, both resolutions CONAMA 001/86 and 237/97 on EIA and environmental licensing make provision for public consultation (CONAMA 1997; CONAMA

1986). Moreover, it is important to emphasise that the City Statute and the Master Plans, which are the key planning documents at federal and municipal levels, also require public participation in order to achieve a democratic management of cities as set out by the City Statute in 2001. The City Statute establishes EIA as one of the instruments of Brazilian urban policy and because of this the City Statute specifically requires public consultation for developments that have the potential to cause negative impacts on the natural and built environment (Federative Republic of Brazil, 2001), reinforcing the provisions made by resolutions 001/86 and 237/97 on public consultation. The philosophies underlying the planning systems and environmental assessment and how public participation is addressed by both in England and Brazil confirms the influence of the collaborative turn in planning theory and environmental assessment discussed in section 2.

METHODOLOGY

This part of the paper describes the research strategy and methods that were used in this research both to collect and analyse data. In summary, the research strategy employed detailed case study analysis involving document analysis and interviews with key stakeholders.

Research strategy - Case studies - Major sports events were selected because they involve some degree of infrastructure development which requires the conduct of environmental impact assessment procedures, such as EIA. With the absence of infrastructure it would not be possible to explore public participation in EIA of major sports events and their associated infrastructure.

The major sports events chosen as case studies for this research were the London 2012 Olympic Games (UK) and the Rio 2007 Pan American Games (Brazil). The reasons for selecting them were as follows: a) major sports events represent an under-researched field from the perspective of EIA literature; b) large scale – case studies are major projects in terms of preparation and operation; c) they demand physical infrastructure which requires the conduction of environmental assessment procedures (EIA); and d) timeliness – Brazil will host the Summer Olympic Games in 2016, hence the possibility to draw upon lessons learned from the Brazilian and English experiences on major sports events is thought to be helpful.

Methods of data collection - Document analysis - For both case studies this research examined the following official documents obtained from the sources as follows:

- a) *Government*: relevant legislation on the environment and urban planning (e.g. Brazilian Federal Constitution); planning documents (e.g. City Statute and Master Plans in Brazil; Planning and Compulsory Purchase Act 2004 in England) and environmental impact assessment regulations (European Directive 85/337 on EIA, including European Directive 2003/35/EC on public participation in environmental assessment of Member States, and CONAMA 237/97 on environmental licensing and EIA in Brazil).
- b) *Delivery bodies*: official reports and official publications on different elements of the Games, such as transport, sustainability, legacy and consultation.
- c) *EIA consultancies*: environmental statements.
- d) *Private sector*: official reports.

- e) **NGOs:** official documents such as One Planet Living prepared by BioRegional.
- f) **Independent assurance bodies:** official reports and publications produced by the Commission for a Sustainable London 2012.

Interviews - Semi-structured interviews were selected as a useful method to gain insights into key-actors' perceptions in the context of both case studies. The interviews in both countries were undertaken with individuals from the following spheres: government; delivery bodies; organising committees; private sector; EIA consultancies; NGOs; residents' associations; environmentalists; independent bodies; and the Federal Public Ministry in Brazil, all of whom had a direct involvement with the two Games in terms of environment and infrastructure issues. In total 34 interviews were carried out, of which 20 interviews were undertaken in Brazil (Rio de Janeiro) and 14 in England (London).

Tables 1 and 2 show in more detail the groups from which individuals were interviewed for the Rio 2007 Pan American Games and London 2012 case studies. It should be noted that the codes for organisations presented in those tables inform the source for quotations used in sections 4 and 5.

Table 1: Participants in the interviews from the Rio 2007 Pan American Games case study.

Sphere	Institution/Body	Code for organisation	Description	Number of Interviewees
Government of Rio de Janeiro	SERIO (municipal level)	SERIO	Special Secretariat for the Rio 2007 Pan American Games: responsible for preparing the city in terms of infrastructure and coordinating the actions for the construction of sport facilities (Official Report Rio 2007 Pan American Games, n.d)	5
	State Secretariat for the Environment	SEA	It implements and integrates the state environmental policies	1
	Municipal Secretariat for the Environment	MSE	It implements and integrates the municipal environmental policies and regulations	1
	INEA (state level)	INEA	Rio de Janeiro state agency for the environment in charge of environmental licensing and EIA	1
Organising Committee	CO-RIO	CO-RIO	Organising Committee for the Rio 2007 Pan American Games: responsible for providing specifications for constructions and services as well as monitoring the application of such specifications in both activities (Official Report Rio 2007 Pan American Games, n.d)	2
Private Sector	Ernst & Young Brazil	Ernst & Young Brazil	Consultancy responsible for undertaking a study related to economic, social and environmental impacts of the Games and for collaborating with the monitoring plan of the Games	1
	FIA	FIA	Consultancy that helped the federal level with issues related to budget, contracts,	1

			monitoring of projects, etc (FIA, n.d)	
	AGENCO	AGENCO	Company responsible for the construction of the Pan American Village	1
EIA Consultancy	SERVEC	SERVEC	Consultancy responsible for undertaking the EIA for the Pan American Village	1
NGO	Lagoa Viva	Lagoa Viva	Environmental NGO located in Barra da Tijuca where the majority of the Games (venues and sports facilities) took place	1
Residents' Association	Câmara Comunitária da Barra da Tijuca	CCBT	Residents' association also located in Barra da Tijuca which participated in the public consultation for the Pan American Village	1
Environmentalists	Former government employee Rio de Janeiro Councilman (at the time of the fieldwork)	Environmenta list	No description	2
Federal Public Ministry	Federal Public Ministry	FPM	Responsible for assuring that citizens' right are respected by the public power and for enforcing the application of laws (Federal Public Ministry, 2011)	1
Rio 2016	Organising Committee	Rio 2016	Responsible for planning and delivering Rio 2016	1

Source: Pereira et al., 2014.

Table 2: Participants in the interviews from the London 2012 case study.

Sphere	Institution/Body	Code for organisation	Description	Number of interviewees
Government	Department for Culture, Media and Sport	DCMS	It aims 'to improve the quality of life for all through cultural and sporting activities, to support the pursuit of excellence and to champion the tourism, creative and leisure industries' (DCMS, 2009, n.p.)	1
ODA	ODA	ODA	Olympic Delivery Authority: 'is the public body responsible for developing and building the new venues and infrastructure for the Games and their use after 2012' (London 2012, 2011a, np)	2
	ODA Planning Decisions Team	ODA PDT	Under ODA and responsible for making decisions on planning applications and for carrying out public consultations (London 2012, 2011b)	1
	ODA Planning Committee	ODA PC	Under ODA and responsible for 'either making the decisions on the applications submitted to the ODA or for delegating the decision to the ODA Planning Decisions Team officers' (London 2012, 2011c, n.p)	2
	ODA Community Relations	ODA CR	Responsible for managing the communications and relations between the	1

			residents, the business and the contractors	
Organising Committee	LOCOG	LOCOG	The London 2012 Organising Committee: 'responsible for preparing and stating the Games' (London 2012, 2011d, n.p)	1
EIA Consultancy	Atkins	EIA Consultancy	Consultancy responsible for undertaking the EIA for the Olympic Park	1
Olympic Park Legacy Company	Olympic Park Legacy Company	OPLC	It is 'the organisation responsible for planning, developing and managing the Park after the 2012 Games' (Olympic Park Legacy Company, 2011, n.p)	1
Olympic Park Master Plan	AECOM/EDAM	OPMP	Company responsible for master planning the Olympic Park	1
NGOs	WWF	WWF	Environmental conservation body	1
	BioRegional	BioRegional	It is 'an entrepreneurial charity which initiates and delivers practical solutions that help us to live within a fair share of the earth's resources – what we call one planet living' (BioRegional, 2011)	1
Commission for a Sustainable London 2012	Commission for a Sustainable London 2012	CSL	The Commission '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' (Commission for a Sustainable London 2012, 2010, n.p)	1

Source: The authors, 2011.

Contacting participants and undertaking the interviews - The first part of the fieldwork was undertaken in Rio de Janeiro in Brazil. Research participants were contacted by email and telephone. For those who decided to participate, date, time and place were booked in advance for the interviews. The 20 interviews with key actors involved directly with the Rio 2007 Pan American Games were conducted between the months of January and February 2010, as the month of December 2009 was used to contact potential interviewees and to arrange the interviews details (date, time and place) for those interested in taking part of this study.

The second part of the fieldwork was carried out in London in England. Differently from Brazil, research participants were contacted by letter first and then by email, which displayed the same pattern of information used to contact participants in Brazil. As soon as participants responded by email or telephone, confirming their interest in participating, interviews were arranged. The 14 interviews related to the London 2012 case study were undertaken from June to August 2010, as the month of May 2010 was dedicated to contact potential interviewees by sending letters and emails.

Here it is worth mentioning that in both countries there were potential participants that declined the invitation to participate in this research due to their busy schedules. Those contacted who indicated that they were unable to participate were members of the ODA (two individuals), ODA Planning Committee (one individual), CO-RIO (two individuals) and government (three individuals in Brazil and one in England). The only individual contacted who

did not respond was a member of the ODA Planning Committee. Despite the non-participation of the individuals cited above, the quality of the fieldwork or the quality of the data collected from the interviews was not compromised as each of those organisations had at least two of its members interviewed for this research providing enough data for a meaningful analysis.

Methods of data analysis - The data collected during the fieldwork in Brazil and England, from both case studies through the interviews, were analysed using a content analysis approach based on a coding technique. The data collected from the interviews, which were audio recorded, were transcribed and then coded manually. This task was undertaken first for the Brazilian set of data between the months of March, April and May 2010 and then for the English set during the months of July and August 2010. Here it is important to mention that the interviews conducted in Brazil were transcribed in Portuguese and only the parts used as quotations were translated into English. The codes that emerged from the interviews were grouped into one main category (public participation) and sub-categories (process, changes in projects, major problems) of codes. A document analysis was applied to analyse the data collected from the review of the documentation previously cited in section 3.2.1.

KEY RESULTS

Public participation in the context of the Rio 2007 Pan American Games - The City Statute, the Master Plan and resolutions CONAMA 001/86 and 237/97 make provision for public consultation (see section 2.1). However, the interviews revealed that in the state of Rio de Janeiro public consultation is likely to be undertaken for development projects subject to environmental licensing followed by EIA (MSE, 00:22:11; INEA, 00:17:33). The other projects which are not subject to EIA tend not to carry out public consultation.

In the Brazilian context, perhaps one of the most outstanding problems in terms of public consultation is concerned with the fact that it is not a mandatory requirement in the environmental licensing and EIA regulations at federal level. Although resolutions CONAMA 001/86 and 237/97 make provision for such a procedure, as mentioned above, these resolutions are still flexible regarding this issue by stating that public consultation should be carried out when necessary (CONAMA 1997; 1986).

The fact that public consultation is not a compulsory step in the environmental licensing process of the state of Rio de Janeiro might also have been reflected in the opinion expressed by one interviewee, a member of a residents association in Barra da Tijuca, who observed that *“the public consultation doesn’t have a weight, a significant meaning in the environmental licensing of developments”* (CCBT, 00:20:03). For another research participant, a member of the Municipal Secretariat for the Environment, *“the regular environmental licensing [not followed by EIA] should also have public consultation to show the projects to interested people, to have public participation”* (MSE, 00:23:20).

EIA was only carried out for the Pan American Village in the scope of the Games, for this reason public consultation was undertaken for this project only. Research participants outlined that the consultation process was reasonably easy for the Village, as the area where the development took place was degraded and under threat of occupation by an illegal settlement. So according to one interviewee, a member of AGENCO, the Pan American Village *“revitalised that area and avoided that it was taken over by slum”* (AGENCO, 00:17:23).

Another interviewee, a member of a residents association (CCBT) in *Barra da Tijuca*, where the Village is located, observed that there was a strong media action plan regarding the benefits that the Games would bring to Rio de Janeiro, so this also contributed to minimize any action against the development during the public consultation hearing (CCBT, 00:29:31). The only issue regarded by research participants as controversial was the scale of the buildings as the urban legislation in the city of Rio de Janeiro allows the construction of three store buildings in the area where the Village was built and the project was to build 12 store buildings (INEA, 00:15:48; CCBT, 00:07:15; SERVEC, 00:46:07). So according to interviewees the legislation had to be changed to accommodate the new scale of the buildings and associated infrastructure (transport, sanitation services, footpaths, medical centre, bus stops, supermarkets, etc) had to be provided as the area where the Village is located was not well linked to other areas of the city (CCBT, 00:07:15; SEA, 00:35:48).

According to research participants, opinions expressed during the public consultation hearing for the Village were taken into consideration (SERVEC, 00:46:07; SEA, 00:34:38; INEA, 00:25:55). One interviewee explained that some ideas in terms of infrastructure, such as new footpaths, were suggested during the public consultation exercise and were incorporated by the development (SERVEC, 00:46:07), however, another research participant stated that the footpaths, which were suggested in the public hearing, were only built recently after several people were injured crossing the streets (CCBT, 00:07:15). Regarding the importance of public consultation for the environmental licensing process, one interviewee, a member of INEA, noted: *"we know that the most democratic instrument that exists today is the public consultation of the environmental licensing process. We use it [public consultation] to improve our comments on projects and as planning conditions of the environmental licence"* (INEA, 00:25:55).

It should be noted that although the consultation process for the Pan American Village seems not to have had many complications, it does not mean opinions are always taken into consideration in Brazil. As stated by a research participant, a leader of a residents association who participated in the public consultation hearing for the Village, the suggestions discussed in a public consultation do not always change projects (CCBT, 00:11:42). In addition this interviewee observed that what usually prevails in the decision-making is the interest of developers and politicians (CCBT, 00:02:54, 00:11:42 and 00:13:28). On the other hand, a research participant, a member of the Federal Public Ministry, stated that the Public Ministry based on the transcription of a public consultation hearing can force developers to meet the commitments agreed in the public consultation hearing (FPM, 00:31:09).

Public engagement in the scope of the London 2012 Olympic Games - As discussed in section 2, public participation is a key element of the EIA process (Weston, 1997; Hartley and Wood, 2005). In terms of major sports events and related infrastructure, it is a valuable opportunity for the public and key stakeholders to show their views, learn more about the project and engage with the event.

A research participant, a member of the Olympic Park Master Plan project explained that the process of undertaking the public consultation for the Olympic Park was intense because there were different stages of consultation in the application process (OPMP, 00:31:55). According to this interviewee, a whole series of sessions were conducted with different audiences, such as different faith groups; women from different faith groups; the elderly; children; gangs; artists; business; shop keepers; etc (OPMP, 00:31:55). The intention was to reach the diversity of groups and sub-groups in the communities where the Games took place: *"you can look at*

people as a community; you can look at the community as different communities in that and so on” (OPMP, 00:31:55). At the end of the planning application process, the Master Plan team of the Olympic Park produced a consultation report, detailing how the public was consulted, who the team spoke to and the general issues raised by the public (OPMP, 00:31:55).

On a project of the scale of the Olympic Games, it is important to highlight that there are several stakeholders such as statutory bodies, local authorities, local interest groups, and pressure groups, among others to be consulted and engaged in the planning process. As observed by a research participant, a member of the EIA Consultancy: *“it was a real challenge to undertake that [public consultation] and to give people the opportunity to comment on the design as it evolved, on the EIA as it evolved”* (EIA Consultancy, 00:09:03).

Although the public consultation was a challenging and intense process, as suggested by research participants, it seems that the results were positive, as reflected by one interviewee, a member of the Olympic Park Master Plan Team: *“it was a positive, valuable process for the design of this piece of London and for the community to understand the potential of the Olympics in terms of jobs, quality of life, and this came out of the consultation”* (OPMP, 00:31:35). To a research participant, a member of the ODA Planning Committee, the public consultation *“has done quite well so there are few issues for people to get cross about”* (ODA PCa, 00:17:05). Additionally, another interviewee, a member of the EIA Consultancy Team stated that *“it is fair to say that on the Olympics the consultation has been done very well, a lot of good strategy mechanisms were put in place to make sure the consultation was undertaken early and everybody wants to have an opportunity to have a say and I think we reflected that in the EIA as well”* (EIA Consultancy, 00:09:03).

Despite the positive comments on the way the public consultation was carried out for London 2012, the interviewees also pointed out some issues which, in their opinion, represent limitations. These issues are summarized in table 3 below:

Table 3: Problems regarding public consultation gathered from the interviews (England).

Problem	Summary
The basic statutory requirements for public consultation in the EIA are limited	<i>“The basic statutory requirements for EIA are very limited. Planning consultation can get away just doing site notes and newspaper notices, some letters to residents [...]”</i> (ODA PDT, 00:33:43).
Public consultation is excessively formal and tends to be limited to large scale exercises It is much more a communication exercise rather than an opportunity to engage people	<i>“Generally in this country, it can be excessively formal and it tends to be limited to large scale exercises. It is much more seen as a communication exercise. Public consultation should be an opportunity to engage, to learn, to have two way feedback”</i> (OPLC, 01:00:14).
It is seen as a requirement, not as a positive opportunity to improve the project	<i>“Public consultation shouldn’t be seen as a juridical requirement, I have to involve people because the law says, I have to involve people because good practice says, I have to involve people, but involve people because ultimately it is going to make a better plan”</i> (OPLC, 01:03:20).

It does not communicate effectively how the opinions are taken on board	<i>"Public consultation is also how you communicate effectively that you took those opinions on board and I think that's also important because lots of times in consultations you can take, take and take and you don't actually communicate what has been delivered"</i> (ODA CR, 00:14:19).
It does not communicate what is delivered	
Lack of people's participation	<i>"The day to day relationships with the local communities in Hackney, Stratford, actually they are not very good at coming to meetings or really responding to a consultation, it is a bit too far away, it is not like next door, so there are many fewer engaged people"</i> (ODA PCa, 00:17:07).
Presence of 'professional objectors' as consultees	<i>"If you just do the traditional types of consultation the problem is it brings out only the professional objectors. There are people that just do this"</i> (OPLC, 01:05:07).

Source: The authors, 2011.

Although the list of issues may seem long, it should be noted that the problems described above are interconnected as they are related to lack of engagement, lack of guidance and an excess of formality. As suggested by a research participant, a member of the ODA Planning Decisions Team, *"it is something part of rewriting the regulations or rewriting the guidance, maybe it affects more the public participation"* (ODA PDT, 00:33:43). Perhaps by providing some extra guidance on public consultation towards a more engaging process, establishing how the opinions are taken into consideration and communicating what is delivered, it is possible to improve the process, making people feel part of it and willing to participate. A more engaging process could also give the opportunity to other "publics" rather than the "professional objectors" to participate. *"So one of the reasons we have to have a more creative engagement and consultation process is because you need a more balanced view of this multitude of publics, because the public is not one thing, it is a multitude of diverse opinions. This creative process could help getting these opinions"* (OPLC, 01:05:07).

Written and verbal representations - As important as carrying out a public consultation is to take into account the opinions given regarding environmental issues in the decision-making process. Regarding this issue, the majority of research participants stated that the feedback from consultees is taken into consideration in the decision-making process of the Games. As explained by a member of the ODA Planning Decisions Team: *"in our planning committee report, we have to log the consultation responses, we have to say how we will be dealing with situations. So we need to be able to say there are legit planning comments and this is how we are going to deal with them. Everybody's comments should be considered and should have some sort of response and should be able to be dealt with clearly through the reporting process"* (ODA PDT, 00:41:46).

A research participant, a member of the LOCOG, observed that *"before putting a planning application in we consulted stakeholders and the public on the planning application and we tried to take the opinions on board"* (LOCOG, 00:32:23). Similarly, another interviewee, a member of the ODA Community Relations, described that *"when you are sitting in a residents meeting and you are asking people about what their thoughts are with regards to something, you are taking people's opinions, even if you got 30 or 40 people, we take those opinions on board"* (ODA CR, 00:14:19). Although the majority of interviewees' comments seem to point to

the consideration of the consultee's opinions in the planning process, it is should be mentioned that a research participant, a member of BioRegional, revealed a different opinion: *"[the Olympic Park] had an extensive public consultation, but no idea how it was taken into consideration"* (BioRegional, 00:23:14).

Do written and verbal representations change projects? - According to the interviews conducted, it is possible to say that the feedback from public consultation changed projects to some degree. Moreover, based on the interviews, it seems London 2012 appreciated what the public had to say regarding the event, recognising and valuing their knowledge on the area where the Olympic Park was built. As observed by a research participant, a member of the LOCOG, the public consultation *"has changed plans as well because they [the public] know local information we don't know, they have good ideas as well, so they can change the plans"* (LOCOG, 00:32:23). Similarly, another interviewee, a member of the Olympic Master Plan Team, outlined that *"the public consultation changed the schemes because people living in this area know far more"* (OPMP, 00:41:50).

Also in line with the comments above, one interviewee, a member of the EIA Consultancy, explained that *"it is right to say that the projects did change in response to the feedback from the consultation and changes were made"*(EIA Consultancy, 00:14:42). This research participant also explained how the feedback from consultees influenced the EIA process, which resulted in changes in the design of projects, by outlining that after the planning application has been submitted and all the documents been reviewed, the planning authority received several comments from the consultation (EIA Consultancy, 00:14:42). Because of this, the EIA Consultancy undertook another series of revisions to EISs in response to a Regulation 19 request made by the planning authorities, who identified a number of issues that needed further work as a result of the feedback of consultees, and carried out changes in the design of the projects (EIA Consultancy, 00:14:42).

In terms of more specific examples regarding how projects changed due to public consultation, *"it is fair to say that the design and layout of the velodrome and cycling facilities did change"*, stated a research participant, a member of the EIA Consultancy' (EIA Consultancy, 00:14:42). This interviewee explained that one possible reason for those projects having changed is related to a strong challenge from the consultees (EIA Consultancy, 00:14:42). Apparently, there was a well-organised cycling lobby that wanted to ensure that the cycling facilities that existed at the site before would be replicated and improved (EIA Consultancy, 00:14:42). So the lobby made strong representations to the project and consequently: *"the design of that scheme did change to take on board the comments as far as possible"* (EIA Consultancy, 00:14:42).

DISCUSSION OF THE RESULTS

Public participation is the third pillar of the Aarhus Convention that emphasizes the role and importance of public participation in environmental decision-making (Hartley and Wood, 2005) (see section 2.1). The public consultation undertaken for London 2012 and for the Pan American Village (the only project in the scope of the Rio 2007 Games that had public consultation carried out) appears to have been effective, with opinions being considered and projects changed. Despite this, research participants, from both cases, expressed their concern regarding a series of problems which may affect the general conduct of public consultation for projects in England and Brazil. The findings (and problems) are as follows: a) basic

requirements for participation in EIA is limited; b) public participation is formal and limited to large scale exercises; c) it is seen as a requirement rather than an opportunity to improve the project; d) it does not communicate effectively how opinions are taken on board; e) it does not communicate what has been delivered; and f) lack of participation by the public.

Although the third pillar of the Aarhus Convention regarding public participation has been addressed by the European Directive 2003/55/EC with the purpose of strengthening the provisions for public participation in EIA (Hartley and Wood, 2005), the findings suggest that more guidance on public participation would be still necessary. Wood (2003) outlines that the availability of clear guidance on the procedures and techniques used for participation are helpful for all stakeholders involved in the EIA process: proponents, decision-makers, consultees and the public.

The view that public participation is limited to a formal exercise or a legal requirement is supported by Shepherd and Bowler (1997, p. 725) who state “citizen involvement is often reduced to a procedural exercise instead of a substantive process to include the public in environmental decision making”. Such a perception on the one hand is consistent with the model of instrumental rationality of decision-making employed in representative democracy which is notably characterized by its limited access to public participation (Holder, 2004) (see section 2). Moreover, it also supports the consultation degree located in Arnstein’s ladder discussed in section 2. However, on the other hand, participation as a procedural exercise does not contribute to the substantive outcomes of EIA in terms of a social learning opportunity for the public to learn “about and through the EIA process” (Lawrence, 2003, p. 386) (see section 2).

Wood (2003) indicates that the results of participation need to be published in order to check their use in the EIA process. The research findings regarding the communication of how opinions were considered in the decision-making process agree with the findings of Hartley and Wood’s study (2005, p. 332), which stresses the need of the public to “be far better informed about how their opinions have been taken into consideration in making the planning decision”. This is also in line with Glasson et al. (2005, p. 165), who state that “an essential part of effective public participation is *feedback about any decisions* and actions taken, and how the public’s views affected those decisions”. These issues are central for collaborative planning and deliberative democracy because they are related to communication and understanding between stakeholders, a premise which is at the core of communicative rationality, as discussed in section 2.

The research findings related to a lack of participation by the public can be analysed from different perspectives: it could be linked to the perception that opinions may not be taken into consideration so people feel discouraged to participate and to what Beck has coined “the risk society” (Weston, 2004), which is a loss of trust in experts in general.

The research findings, particularly from London 2012, on the different ways the public was involved in the participation process and on stakeholder involvement with environmental NGOs, such as BioRegional and WWF at the beginning of the planning process, seem to indicate application of the participation and environmental governance models of Cashmore, discussed in section 2, as this governance model empowers stakeholders to play a more substantial and inclusive role in terms of participation (Cashmore, 2004). Although these represent positive examples of participation, it should be noted the findings are still located in the participation degree of Arnstein’s ladder (see section 2), confirming Petts’ (1999) view that

this level of participation is the one that many planning and EIA processes have supported, as discussed in section 2.

Public involvement can foster mutual understanding and communication (Shepherd and Bowler, 1997) within the communicative rationality and deliberative ethic applied to planning and environmental assessment. In terms of the contribution of public participation to more participatory and democratic decision-making processes, the following quotation from London 2012: *“don’t pretend you are going to give them [the public] the opportunity to write the plans and that you are going to do everything they say”* (OPLC, 01:00:14) perhaps show the long way public involvement has to go before reaching the upper levels of Arnstein’s ladder which foster citizens’ engagement and empowerment in order to build a more emancipatory society.

CONCLUSIONS AND RECOMMENDATIONS FOR IMPROVED PUBLIC PARTICIPATION IN THE CONTEXT OF EIA

Public consultation carried out in the context of the EIA of the Olympic Park Master Plan was reasonably effective and the opinions gathered were taken into consideration, and were responsible for changing and shaping some projects that made up the London 2012 Games infrastructure. In the scope of the Rio 2007 Games, EIA was only carried out for the Pan American Village, for this reason public consultation was also undertaken for this project only. Nevertheless, opinions expressed during the public consultation hearing for the Village were taken into consideration and some ideas in terms of infrastructure were suggested during the public consultation exercise and were incorporated by the development. Based on this, it can be seen that there is evidence that public participation within the EIA process informed the planning process for London 2012 and for the Pan American Village of the Rio 2007 Games.

Understanding and learning from the experience of the Rio 2007 Pan American Games and from other experiences elsewhere, such as from London 2012, is essential to improve the planning process and the environmental sustainability of the forthcoming major sports event which will be held in Brazil in 2016 (the Summer Olympic Games). Within this context, a specific recommendation on public participation is proposed for the Brazilian context in order to strengthen its regulatory framework for environmental licensing and EIA:

- Inclusion of public consultation as a mandatory requirement of the environmental licensing system, extending Wood’s view that “EIA is not EIA without public consultation and participation” (2003, p. 275) towards the environmental licensing. The same could be argued for the licensing system. As the Brazilian case study demonstrated, public consultation is likely to be undertaken only for developments that carry out EIA. However, based on a collaborative approach, it is also necessary to expand the conduct of public consultation to the environmental licensing as a whole (not only for the one followed by EIA), with the purpose of creating a more participatory process with the participation of a wide range of stakeholders in line with the communicative rationality and deliberative ethic applied to planning and environmental assessment. This recommendation would improve the environmental licensing and EIA systems by changing legislation at the federal level through the inclusion of public consultation as a mandatory requirement of both systems.

In a wider theoretical context, this research could be taken forward by examining public participation in the legacy planning of major sports events, which is an area in need of further research. Within the context of the Rio 2016 Olympic Games, further research on issues such as formal and informal mechanisms for participation in legacy planning and the influence of public participation in the decision-making related to evictions of low-income communities in the scope of the Games developments are thought to be helpful.

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