Technical Manual on Olympic Games Impact

June 2007

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Contractual Requirements and other Information

This Manual is an integral part of the IOC Host City Contract. The contractual requirements found within this document are clearly marked with a triangle icon and indicated with a grey background. This Manual also contains key recommendations and educational information. It often refers to other IOC documents and Manuals in an effort to synthesise information under specific subjects.

Evolution of Contents

As stated in the IOC Host City Contract, the City, the National Olympic Committee (NOC) and the Organising Committee for the Olympic Games (OCOG) recognise that, while the content of the Technical Manuals represents the current position of the IOC on such matters, its content may evolve. The IOC reserves the right to amend the Technical Manuals and it is the responsibility of the City, the NOC and the OCOG to adapt to such amendments so that the Games are organised in the best possible manner, as stated in further detail in the Host City Contract.

Disclosure

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Foreword

Introduction

The Olympic Games symbolise a unique venture as it has the power to deliver a significant experience which can considerably change a community, its image, and its infrastructure. The IOC recognises that the Games can be used as a tool to realise a vision, in which the universal values of Olympism are also promoted. Within this spirit, efforts to improve the management of Games organisation are integrated with the goal of enhancing the value of the Olympic Games product and maintaining their relevance over time. A process of constant study helps to evolve the parameters of Games management, and has led the IOC to develop simple, key messages to adhere to when organising the Games.

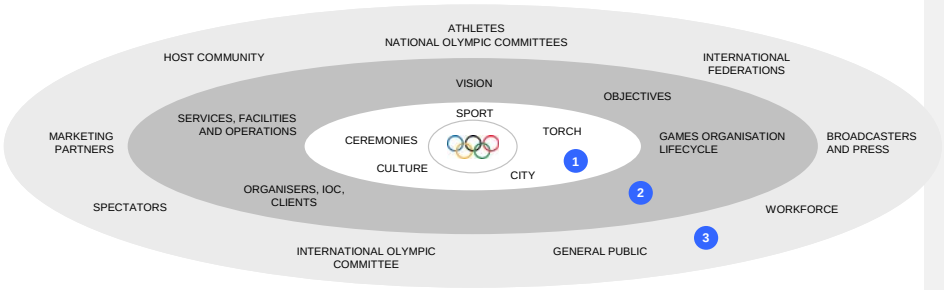
In order to maximise the opportunities and minimise the risks associated with organising such a large and complex event, the IOC provides guidelines and assistance to Olympic Games organisers. In this context, the Technical Manuals are created to serve as the guide to Games organisers in specific areas of Games management, while maintaining the spirit of the Olympics into the future.

The Olympic Games Experience

Olympic Games clients wish to have a unique experience, one that merges concrete factors such as sporting competitions with other more intangible aspects such as a friendly atmosphere and cultural exchanges. It is these elements combined that distinguish the Olympic Games, and subsequently the Olympic Games experience, from other events. In that respect,

The following key principles underpin the Olympic Experience vision and philosophy:

- It is necessary for every party contributing to the Games' bid and organisation to share a common vision, mission and values.
- All elements of the Olympic Games, from competition venues to city activities, must be developed in a coherent and integrated manner, with a consistent management and delivery approach among all parties: the IOC, the Clients, and the Organisers. The Organisers must have integrated management mechanisms linking the OCOG, National Olympic Committee and Public Authorities.
- It is essential for Organisers to adopt a client-driven culture; it is this culture that enables differentiation between technically successful Games and an all-encompassing successful Games experience.
- The client culture is underpinned by the concept of reverse or backward planning: starting from a vision of the Clients' Games-time experience (based on the client needs and expectations) and working backwards to "now", where now is any specific point in time during the planning phase.



1. White surrounding the brand is the Olympic Games product, a combination of sport, city atmosphere and activities, culture, ceremonies and the torch relay. This is represented in the inner circle.
2. The organisation and management circle includes the shared vision and objectives, the services, facilities and operations delivered by the Organisers in collaboration with the IOC and Clients; a collaboration that exists over the lifecycle of the Games' organisation.
3. The final layer represents the Games clients and service culture. The Olympic Games are experienced by each of these Games clients; their different needs and expectations drive the organisation, management and delivery of services, facilities and operations shaping the end Olympic Games product.

Foreword, Continued

Sustainable Development

Sustainable development is one of the underpinning principles of the Olympic Movement.

Encompassing the three key areas of environment, social/culture and economic, it is an integral part of Olympic Games planning, management and its subsequent legacy. Within the reach of all, sustainable development requires people, organisations, communities and government to enlarge their vision, consider the future and understand how the decisions and actions they take today will impact the legacy they leave behind them tomorrow.

Responsibility towards and respect of the sustainable development guiding principles by the Host City, the Organising Committee and its partners is therefore very important to the successful staging of an Olympic Games. With long-term strategic planning, community involvement and receptiveness from all parties, the multitude of opportunities offered by hosting the Olympic Games can be optimised in order to respond, not only to the requirements needed to stage the Games, but also to the needs and expectations of the Host City's current and future generations.

Olympic Games Knowledge Management – "OGKM"

Underpinning this approach and fulfilling its role as a coordinator and facilitator in the transfer of information from OCOG to OCOG, with the objective of reducing the overall risk of staging a Games, the IOC initiated the Olympic Games Knowledge Management (OGKM) Programme, which features extensive educational material and service offers for OCOGs, as well as support processes such as the Games Debriefing. Technical Manuals are an integral part of this approach of knowledge transfer by providing to the user educational information alongside the contractual requirements described within.

Spirit of Technical Manuals

The content found within the Manuals represents the IOC's best understanding of the specific theme at a given moment in time, and must always be put in context for each Games edition. Even a requirement with a distinct objective may vary from Games to Games, and therefore a spirit of partnership should be shared with the Games organisers to allow for the evolution of the requirements. This is especially true as the Manuals are updated following the evaluation phase of each Games.

Paralympic Games ✖

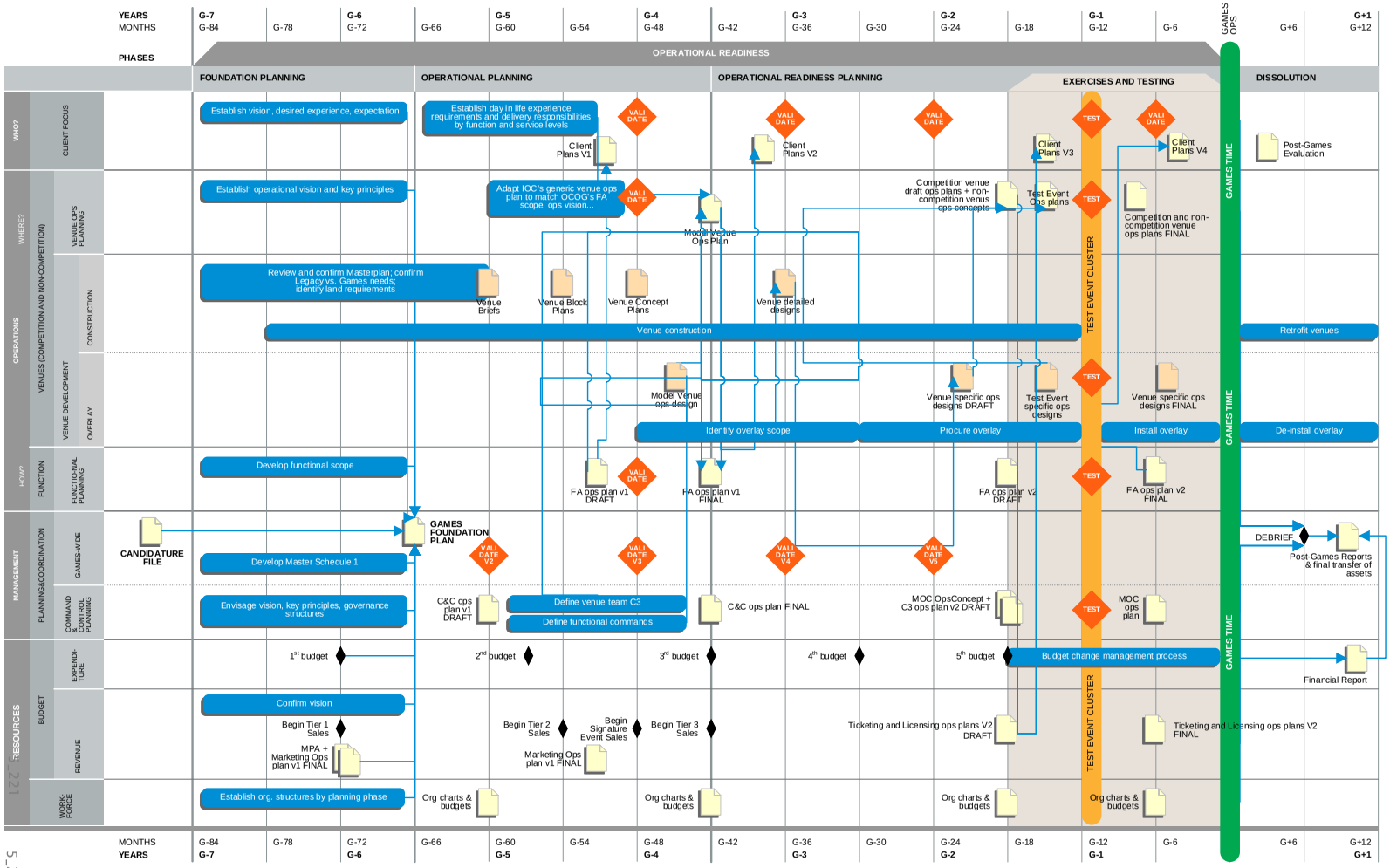
In order to provide Games organisers with a complete picture of a given Games subject and to promote an integrated planning approach, both Olympic Games and Paralympic information is integrated within the Technical Manuals. General information may apply to both Olympic and Paralympic Games even though not explicitly mentioned, while Paralympic-specific information is identified as such, usually at the end of each main chapter or through the IPC reference symbol. All other information concerning the Paralympic Games can be found in the Technical Manual on Paralympic Games or directly through the IPC. As per the Host City Contract, the services provided to the participants in the Paralympic Games should be based upon similar principles to those applicable to the Olympic Games - i.e. if no Paralympic-specific difference is specified in the Paralympic sections of the Manual, the Olympic level will also be used as a basis for discussion regarding the Paralympic standards in that given area. The IOC assumes no responsibility of any kind with respect to or deriving form any aspects of the planning, organisation and/or staging of the Paralympic Games.

About the Games Readiness Integrated Plan ✖

The IOC recommends a planning framework that can be applied by Organisers to deliver the Games. This is called the Games Readiness Integrated Plan (GRIP), formerly known as the Games Planning Process (GPP). Organisers review the IOC-recommended framework, adjust it if necessary to fit their own context and agree the revised framework with the IOC. The GRIP is an evolutionary planning framework in that each phase and output is a further evolution of the previous phase and output, starting from the Candidature File. Progressive learning, development and detailed planning over the lifecycle of the Organisers allow this evolution. See Technical Manual on Games Management for additional details.

A graphical illustration of the GRIP is found on the next page.

GAMES READINESS INTEGRATED PLAN



About Technical Manuals

Presentation
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The IOC distributes contractual requirements and educational information that can be described as follows:

OLYMPIC CHARTER

The Olympic Charter represents the permanent fundamental reference document for all parties of the Olympic Movement and it governs the organisation action and operation of the Olympic Movement and stipulates the conditions for the celebration of the Olympic Games.

HOST CITY CONTRACT

The Host City Contract sets out the legal, commercial and financial rights and obligations of the IOC, the Host City and the NOC of the host country in relation to their specific Olympic Games (it is therefore different from Games to Games). In case of conflict between provisions of the Host City Contract and the Charter, the Host City Contract shall take precedence.

MASTER SCHEDULE II

All planning requirements (deliverables and milestones) are marked in a Generic Master Schedule, an executive road map used by the IOC to outline the key Games deliverables and to monitor the Games preparations. The Generic Master Schedule is then adapted per Organising Committee into a Specific Master Schedule, reflecting organisers' planning evolution. This information is the necessary planning complement to the Technical Manuals, and available through the IOC Games Dept.

TECHNICAL MANUALS

IOC Technical Manuals are documents that contain key educational information on a specific subject (Games function or theme), related to the organisation of the Olympic Games and the Paralympic Games: functional requirements, constituent perspective, planning information, current practices. Technical Manuals are also annexes to the Host City Contract, and therefore contain contractual requirements, which are identified as such. Technical Manuals can be found in e-version only on the OGKM Extranet (www.ogkm.olympic.org).

OLYMPIC GAMES KNOWLEDGE MANAGEMENT

Information from the IOC's Olympic Games Knowledge Management (OGKM) Programme is found on a specific extranet (www.ogkm.olympic.org), which contains reports, examples and data from previous Games experiences. More information on this Programme can be found in the Technical Manual on Planning, Coordination and Management of Olympic Games.

How to read a Technical Manual

Technical Manuals are intended to be read as reference documents, such that a user does not need to read from front to back, instead being able to go directly to specific pieces of information found within the document. The beginning of each Technical Manual contains generic sections summarising key information from that Manual. The detailed content begins with chapter (or part) one. Each chapter also begins with a summary of its content that should allow easy identification of useful information for a user.

Updates to Technical Manuals

Technical Manuals are updated as part of the post-Games evaluation process, following each edition of an Olympic Games. This process includes the official Debriefing as well as meetings with and reports from all clients, in which changes to policies, working practices and recommendations are set. These changes are subsequently formalised within the Technical Manuals, which are republished with the updates. Therefore, all Manuals are published with the same publication date. All changes are outlined in the "Changes from Previous Version" chapter, found at the beginning of each Manual.

Presentation

Specific information is marked in the Manual using icons and grey backgrounds. The following table gives a description of their signification:

Description	Type	Presentation
Requirement that has to be fulfilled by the OCOG as part of the Host City Contract	**Contractual Requirement**	**△**
Reference to information (generally rules) that is not available directly through the IOC	Third-party reference	✪
Reference to IPC information or requirements	IPC reference	▸ IPC
Reference to another IOC document	Cross-reference	✕

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I. Executive Summary

Hosting an Olympic Games has a significant impact on the Host City and its community. From tangible infrastructure construction, such as competition venues and transport improvements, through to the evolution of the image of the Host City, the event acts as a vehicle and catalyst which leaves a lasting mark on the city, Host Country and its people through its economic, urban, social or historic influence.

The idea for the OGI study was born from the IOC's desire to develop an objective and scientific analysis of this impact for each edition of the Olympic Games. By this means, the IOC will build up a powerful and accurate knowledge base of the tangible effects and legacy of the Games. In turn this will enable the IOC to fulfil two of its principal objectives as enshrined in the Olympic Charter:

- to encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and require that the Olympic Games are held accordingly; and
- to promote a positive legacy from the Olympic Games to the Host cities and the Host countries.

The OGI study proposes a set of indicators to measure the potential impacts of the Games. For the impact of the Games to be captured in a consistent manner from one Olympic Games edition to the next, this procedure is both common to all Olympiads and also compatible with the individual nature of each one.

The scope of the OGI study covers the three internationally recognised areas of sustainable development (economic, socio-cultural and environmental). Three territorial notions are proposed to take account of the different areas affected by the organisation and impact of the Olympic Games. They are the country, the region and the city.

The OGI study covers a period of twelve years. This period commences two (2) years prior to the Host City election and continues through to three (3) years after having staged the Games.

OGI reviews are provided to the IOC from G-48 onwards. Reviews contain the relevant completed data collection sheets together with an interpretation of the data contained within. The initial conclusions of the OGI study are included within the Official Report that is submitted to the IOC at G+12.

The OGI study can be used as a dynamic management tool which allows the organisers and their stakeholders to have an overall vision of the impact of their activities and investments made in the framework of staging the Games. Used actively, the OGI study offers the organisers a means of understanding the effects of certain actions undertaken and to make adjustments if necessary.

It can also be used as a tool to demonstrate the positive contribution of holding the Games in terms of local and regional development.

II. Changes from Previous Version

Presentation This section lists the main changes found in this version in relation to the previous.

Change to Generic Sections For the June 2007 versions, the IOC changed the layout and structure of the "Generic Sections" (chapters I to XII) found in previous Technical Manuals, in order to simplify their understanding. The table describes which sections have changed:

Previous section name	New Section name
I. Global Reference Data	Content moved to Cover page
IV. Information Roadmap	About Technical Manuals
V. Olympic Games study	Content moved to Foreword
VI. Introduction	Section removed
VIII. Technical Presentation	Section removed
IX. Link to OCOG Phases	Games Readiness Integrated Plan
X. Master Schedule Reference	Section removed, content to be found in Generic MS2

Previous Guidelines and Review Prior to this Technical Manual, the IOC compiled draft Guidelines on the Olympic Games Global Impact (OGGI), which contained descriptions of the indicators and the methodology to be used to produce the OGGI study.

Following the July 2006 OGGI Workshop organised by the IOC (following the Torino 2006 Debriefing in Vancouver), the decision was taken to review the OGGI study. Based on comments received by participating Organising Committees, the review aimed at providing additional operational content, including Paralympic elements, and developing the OGI study into a more operationally pertinent tool.

From OGGI to OGI The original study was entitled the Olympic Games Global Impact study. It became apparent over time that the term "Global" was misunderstood and in some cases created confusion. To eliminate this, the IOC decided in 2006 to rename the study the Olympic Games Impact study. This modification has no influence on the content of the study.

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators

For OCOGs working on the basis of previous indicators, the table below lists all changes, grouping and deletions that occurred between the initial draft version of the methodology and this new, finalised edition:

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed / New
	Environmental sphere			
En1	Renewable fresh water use	En1	Water reserves and consumption	
En2	Public water supply	En2	Water consumption per inhabitant	
En3	Water quality	En3	Water quality	
En4	Greenhouse gas emissions	En4	Greenhouse gas emissions	
En5	Air Quality	En5	Atmospheric pollutants	
		En18	Ozone	Grouped
En6	Land use changes	En6	Land use	
		En14	Deforestation	Grouped
En7	Protected Areas	En7	Listed sites	
		En8	Buffer zones	Removed
En8	Threatened species	En9	Endangered species and biodiversity	
		En10	Fertilisers, pesticides and agricultural production	Removed
		En11	Hazardous substances in foodstuffs	Removed
		En12	Energy used by agriculture	Removed
		En13	Irrigation rate	Removed
En9	Housing Areas	En17	Housing Areas	
En10	Public open-air leisure areas	En16	Open-air leisure areas	
En11	Transport networks	En20	Transport networks	
En12	Daily travelling distance	En21	Daily travelling distance	
En13	Road congestion	En22	Road congestion	
En14	Energy consumption by source	En42	Energy consumption broken down by source	
		En41	Per capita energy consumption	Grouped
En15	Energy consumption by use	En43	Breakdown of energy consumption by use	
En16	Energy self-sufficiency	En44	Energy self-sufficiency	
En17	Raw material consumption	En15	Raw material consumption	
En18	Solid waste treatment	En23	Solid waste	
		En24	Waste and waste water treatment capacity	Grouped
		En25	Waste treatment	Grouped
En19	Wastewater treatment	En26	Water treatment	

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators (continued)

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed / New
En20	Greenhouse gas emissions of Olympic Games			New
En21	Olympic-induced land use changes	En27	Area listed compared with area disturbed	
		En28	Developed area of Olympic sites	Grouped
En22	Olympic venues in protected sites			New
En23	Food production consumed during Olympic Games	En32	Food production consumed during Olympic Games	
En24	Olympic induced housing			New
En25	Indoor air quality	En19	Indoor air quality	
En26	Capacity of Olympic Venues	En35	Construction and floor areas Olympic buildings	
		En30	User capacity of developed areas	Grouped
		En36	User capacity of facilities	Grouped
		En39	Reassignment of facilities	Grouped
		En33	Reassignment of developed areas	Grouped
En27	Life-cycle inventory of Olympic Venues	En34	Primary ecological assessment of facilities	
		En29	Primary ecological assessment of developed areas	Grouped
En28	Operating and maintenance of Olympic Venues	En37	Operating flows of facilities	
		En31	Operating flows of developed areas	Grouped
En29	Olympic induced transport infrastructure			New
En30	Olympic transport impacts	En38	Average journey times between Olympic sites	
En31	Olympic energy consumption			New
En32	Solid waste production of Olympic Games			New
En33	New waste and wastewater treatment facilities			New
En34	Life-cycle inventory of Olympic and Paralympic Games			New
		En40	Prospective impact studies	Removed
	Socio-cultural sphere			
So1	Political representation	So1	Distribution of political power	
		So2	Public consultation and participation	Removed
		So3	Fundamental rights in the constitution	Removed
		So4	Classification in international ratings	Removed
		So5	Global agreements	Removed
So2	Legislative activity	So6	Laws and amendments	

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators (continued)

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed / New
So3	Pressure groups	So7	Pressure groups	
So4	Community centres and associations	So16	Community centres and associations	
So5	Minorities			New
So6	Poverty and social exclusion	So8	Human Poverty	
		Ec18	Low wage proportion	Grouped
So7	Educational level	So9	Education level	
So8	Crime rates	So10	Crime rate	
So9	Health	So11	Health services	
So10	Nutrition	So12	Nutrition	
		So13	Sanitation facilities	Removed
So11	Cultural activities	So17	Cultural venues	
So12	Sport and physical activities	So19	Sports played	
		So18	Participation rates in sport	Grouped
So13	School sports	So20	School sports	
So14	Available sports facilities	So21	Available sports facilities	
So15	Exclusion, Discrimination, Racism and Violence in Sport			New
So16	Top-level sportsmen and women	So22	Top-level sportsmen and women	
So17	Professional Leagues	So23	Professional Leagues	
So18	World and continental championships	So27	World and continental championships	
So19	Results at the Olympic / Paralympic Games and World Championships	So24	Results at the OG and World Championships	
So20	National anti-doping controls	So28	Cases of illegal drug use and drug tests	
So21	Media specialising in sport	So25	Media specialising in sport	
So22	Sports broadcasting	So26	Sports broadcasting	
So23	Information media	So14	Information media	
So24	Information and communications technology	So15	Telephone lines and Internet connections	
So25	Political involvement in the organisation of the Games	So29	Political involvement in the organisation of the Games	
So26	Deferment and abandonment of public policies	So34	Deferment and abandonment of public policies	
So27	Votes connected with the Olympic and Paralmypic Games	So32	Parliamentary votes connected with the OG	
		So33	Public referendums connected with the OG	Grouped
So28	Consultation with specific groups	So35	Consultation with specific groups	
So29	Opinion polls	So57	Opinion polls	

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators (continued)

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed / New
So30	Participation of minorities in Olympic Games			New
So31	Homeless, low-rent Market and affordable Housing			New
So32	Olympic and Paralympic educational activities	So42	Educational activities	
		So31	Security agents	Removed
So33	Olympic and Paralympic arts designers and participants	So36	Arts and architecture	
		So38	Ceremony participants	Grouped
So34	Cultural programme	So41	Cultural programme	
So35	Recognition of Olympic and Paralympic logos and mascots	So40	Recognition of logos and mascots	
So36	Reported Complaints about Racism, Discrimination and Violence During the Games			New
		So50	Official sports	Removed
		So51	Judges and referees	Grouped
		So45	NOC delegations	Grouped
		So55	Olympic records and world records	Removed
So37	National sport development	So54	Medals and national records	
		So53	Complaints and appeals	Removed
		So52	Drug testing	Removed
		So46	Officials	Removed
		So47	Administrative and technical staff	Removed
		So48	Guests	Removed
		So30	States officially represented during the OG	Grouped
So38	Volunteers	So37	Volunteers	
So39	Spectators	So49	Spectators	
		So39	Spectators at the ceremonies	Grouped
So40	Attending Events - Affordable Games			New
So41	Promotion of Minorities and Indigenous Population (Youth, Seniors, Equity Seeking Groups)			New
So42	People working in Context Activities (non-accredited)			New
		So43	Media accreditation	Removed
		So56	Television and radio audiences and broadcasting time	Removed

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators (continued)

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed
So43	Host city's media image	So58	Media image	
		So44	Visitors to the Olympic Games website	Removed
So44	Perceptions about people with disabilities in society			New
So45	Support network for disabled people			New
So46	Professional sport education for people with disabilities			New
So47	Sustainability of accessiblity provisions in Olympic and Paralympic venues			New
So48	Accessibility of public services			New
	Economical sphere			
Ec1	Employment by economic activity	Ec1	Structure of the productive sector	
Ec2	Employment indicators	Ec4	Socio-economic indicators	
Ec3	Size of companies	Ec2	Concentration of the productive system	
Ec4	Quality management of companies	Ec3	Quality of the productive system	
		Ec5	Breakdown of building stock	Removed
Ec5	Motor vehicle population	Ec6	Structure of motor vehicle population	
Ec6	Public transport	Ec7	Structure of the transport system	
Ec7	Accommodation infrastructure	Ec8	Hotel infrastructure	
Ec8	Accommodation occupancy rate	Ec9	Hotel occupancy rate	
Ec9	Tourist nights	Ec11	Tourist nights	
Ec10	Airport traffic	Ec10	Registered passengers at airports	
Ec11	Foreign organisation establishments	Ec12	Number of foreign organisation establishments	
Ec12	Hosting of international events	Ec13	Hosting of international events	
		Ec14	Structure of the economic product	Removed
		Ec15	Gross domestic product	Removed
		Ec16	Dependence of the economy	Removed
Ec13	Wages	Ec17	Wages	
Ec14	GINI income distribution index	Ec19	GINI income distribution index	
Ec15	Consumer price index	Ec20	Consumer price index	
Ec16	Price indexes	Ec21	Price indexes	
Ec17	Hotel Price Index			New
Ec18	Real Estate Market			New
Ec19	Economic balance	Ec22	Economic balance	
Ec20	Dynamics of service activities	Ec23	Dynamics of service activities	
		Ec24	Exchange rate	Removed

Continued on next page

II. Changes from Previous Version, Continued

Table of correspondence between old and new indicators (continued)

New Nr.	New Indicator Title	Old Nr.	Old Indicator Title	Grouped / Removed
Ec21	Investment risks	Ec25	Investment risks	
Ec22	Foreign Direct Investment			New
Ec23	Economic role of the state	Ec26	Economic role of the state	
Ec24	Structure of public spending	Ec27	Structure of public spending	
Ec25	Structure of fiscal revenue	Ec28	Structure of fiscal revenue	
Ec26	Public debt	Ec29	Public debt	
Ec27	Jobs created in Olympic and context activities	Ec35	Jobs created in Olympic and context activities	
Ec28	Composition of committees by sector	Ec30	Composition of committees by sector	
		Ec31	Breakdown by origin and sector (Olympic activities)	Removed
Ec29	New Olympic / Paralympic-related businesses			New
		Ec32	Breakdown by origin and sector (context activities)	Grouped
Ec30	Size and quality management of contracted companies	Ec33	Size and quality (Olympic activities)	
		Ec34	Size and quality (context activities)	Grouped
Ec31	Olympic Family vehicles	Ec37	Olympic Family vehicles	
		Ec36	Overnight stays by category and origin	Removed
Ec32	Breakdown of visitor spending	Ec48	Breakdown of visitor spending	
Ec33	Structure of OCOG revenues	Ec38	Structure of OCOG revenue	
Ec34	Structure of OCOG expenditure	Ec39	Structure of OCOG spending	
Ec35	Total operating expenditures (Olympic activities)	Ec42	Breakdown of operating expenditure (Olympic activities)	
Ec36	Total capital expenditure (Olympic activities)	Ec43	Breakdown of capital expenditure (Olympic activities)	
		Ec44	Breakdown of operating expenditure (context activities)	Removed
Ec37	Total capital expenditure (context activities)	Ec45	Breakdown of capital expenditure (context activities)	
Ec38	Total wages paid (Olympic activities)	Ec46	Directly induced earnings (Olympic activities)	
		Ec47	Directly induced earnings (context activities)	Removed
Ec39	Catalyst effect of the Games	Ec40	Catalyst effect of the Games	
Ec40	Ratios specific to Olympic activities	Ec41	Ratios specific to Olympic activities	
Ec41	Public share of expenditure (Olympic activities)	Ec49	Public share of expenditure (Olympic activities)	
Ec42	Public share of expenditure (context activities)	Ec50	Public share of expenditure (context activities)	
Ec43	Tax revenue from Olympic activities	Ec51	Revenue from Olympic activities	
		Ec52	Revenue from context activities	Removed
Ec44	Employability of people with disabilities			New

III. Related Documents

List

The following is a list of all documents this Technical Manual refers to:

- Olympic Charter
- Host City Contract
- Technical Manual on Games Management
- Technical Manual on Information Management
- Technical Manual on Transport
- Technical Manual on Paralympic Games
- Candidature Acceptance Procedure
- Candidature Procedure and Questionnaire

IV. Contractual Requirements List

Presentation

This Manual is an integral part of the Host City Contract and therefore contains contractual requirements the OCOG is required to fulfil. This section lists those contained within this Technical Manual.

OGI requirements

The OCOG is required to deliver the Olympic Games Impact study following the methodology, planning and deliverables set forth in this Manual, as referred to in the Host City Contract.

V. Games Readiness Integrated Plan

Outputs
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The Games Readiness Integrated Plan (GRIP) key outputs and their content for this Manual are described below. Further information on the elements of the GRIP can be found in the Technical Manual on Games Management.

Candidature File
✖

The Candidature File contains the compilation of a Candidate City's answers to the Candidature Procedure and Questionnaire. It is the starting point for the reflexion and organisation of the OGI study for a Host City.

- Recommendation to conduct a feasibility study prior to determining the study's structure within the OCOG and commencing data collection and reporting
- Recommendation to include stakeholders early in the process

Games Foundation Plan

The Games Foundation Plan is the first formal update of the Candidature File with a much more detailed understanding of the task ahead and an emphasis on how the Organisers intend to organise and stage the Games.

The document sets the overall vision, objectives and strategies for hosting the Games, puts forth how the Organisers intend to structure themselves and work together, and provides an overall planning roadmap for the preparations.

The Games Foundation Plan has a Games-wide focus.

The Olympic Games Impact study is an important element in the Games Foundation Plan. Content is to include:

- Complete list of indicators to be studied by the OCOG
- Per indicator, the agreed-upon modifications within the permitted scope of modifications i.e. metrics or definitions where needed to comply with local environment
- Additional OCOG specific indicators presented as per the OGI format
- Definition of the geographical zones covered with supporting maps (city / region / country)
- Definition of terminology where relevant per indicator,
- The approach used to implement the study
- Presentation of the Research Partner(s) selected (if such a strategy is chosen)
- The sharing of responsibilities and working processes between the OCOG (and stakeholders), the NOC, and the Research Partner

VI. Glossary

Presentation In this section you will find all terms relevant to this specific Technical Manual. Please note that these definitions are used for information and educational purposes only to assist with the reading of this Manual.

Term	Definition
Games Period	Reference to the period from the official opening of the Olympic Village to the official closing of the Olympic Village, and the official opening of the Paralympic Village to the official closing of the Paralympic Village. This term is used specifically in the Olympic Games Impact study context and should not be confused with the term "Games-time" (see Olympic Movement Terminology)
Initial Situation	Situation of the indicator at G-108 (two years prior to the Host City Election).
Final Situation	Situation of the indicator at G+36 (with the final OGI study report).
Olympic and context activities	Any activity, which the OCOG manages, is considered an Olympic activity. Any other activity (set up to support the organisation of the Games, but not managed by the OCOG) is a context activity.
Context and Event indicators	An indicator is referred to as a context indicator if what it measures relates more to the environment in which the Games will be staged, the general context (general data), a broader scale or is not directly related to the Games. An indicator is referred to as an event indicator if what it measures is directly related to the Games, or it is highly probable that the staging of the Games will have an impact upon what is to be measured by that indicator. The distinction between both in not absolute and certain indicators might be classified in both categories. The distinction between both is therefore artificial and only a guidance when analysing the indicator measurements.
Olympic venues	Venues, as the term is used in this document, refers to competition, non-competition and training sites (Olympic and Paralympic).

1.0 → Presentation of the Olympic Games Impact study

Overview

Introduction This section explains the creation of the Olympic Games Impact study and outlines its benefits and parameters.

Contents This chapter contains the following topics:

Topic
1.1 Definition of Impact
1.2 Presentation of the study
1.3 Olympic Games Impact Indicators
1.4 Benefits of implementing the study
1.5 Paralympic-specific Information

1.1 Definition of Impact

Introduction

This section presents the International Olympic Committee's (IOC) definition of Games Impact, and how it is measured.

Games Impact

The organisation of an Olympic Games is an event of limited duration that has a profound effect on the city, region and country hosting the Games.

The consequences and changes (both tangible and intangible) brought about by hosting the Games are what are generally referred to as legacy. This will have physical attributes in terms of venues and infrastructure developed for the Games, socio-economic legacy in the form of new/increased business opportunities, jobs and tourism, and a broad set of 'soft' legacy components including intellectual property, behavioural changes and even perceptions.

The meaning of impact is to provide a quantitative and qualitative measure of the changes, or outcomes, caused by hosting the Games. Identifying and attributing direct causality to the Games is very difficult and complex. There is no one single measure to define impact. It has to be judged across a range of criteria which can be related to defined baseline situations (the context). However, this is not a static relationship. The Games always take place within an evolving city/regional and national (as well as international) context.

This relationship influences the event – the organisation and staging of the Games – as well as the city or region hosting the Games. Therefore, just as the host region's individuality, at a geographical and socio-cultural level, influences the form of the Olympic event, the staging of the Games also influences changes in the host city/region, and potentially has a decisive influence on the evolution of this context.

Measurement of Impact

The OGI study proposes a set of indicators that attempt to measure the impact of the Games. In order to link a general framework of analysis to a set of specific indicators, a procedure for identifying the impact of an Olympic Games is proposed. For the impact of the Games to be captured in a consistent manner from one Olympic Games edition to the next, this procedure is both common to all Olympiads.

In this way the IOC, current and future host cities and candidate cities can gain a better understanding of potential impacts and appropriate legacy strategies. At the same time, OGI is designed to be sufficiently flexible to be compatible with the individual nature of each host city.

OGI indicators therefore provide a record both of the individual nature of each Olympiad and its host context, and a database of information that is common to all Olympic Games.

1.2 Presentation of the study

Objectives of the OGI study

The Olympic Games are an extraordinary phenomenon which brings into play a significant amount of a Host City's resources and demands considerable effort and commitment.

Hosting an Olympic Games has a significant impact on the Host City and its community. From tangible infrastructure construction, such as competition venues and transport improvements, through to the evolution of the image of the Host City, the event acts as a vehicle and catalyst which leaves a lasting mark on the city, Host Country and its people through its economic, urban, social or historic influence. To what extent, with what results, and with what benefits, has been a long-lasting debate.

Throughout the entire preparatory phase and the Games' realisation, evolutions, changes and often improvements in economic, social and environmental areas can be observed and be attributed to the staging of the Games. The idea of the OGI study was born from this observation and the IOC's desire to measure objectively and scientifically this impact.

The principal objectives during the creation of the study were to:
Measure the impact of the Olympic Games in a Host City, its region and country
Help bidding cities and future Olympic organisers identify potential legacies in order to maximise the benefits of their Olympic Games

OGI is not a prospective study

It is important to note at this stage that the Olympic Games Impact study is not a projection of the potential impact of the Games, as could be conducted i.e. by Bid Cities. The Olympic Games Impact study is an objective study measuring facts as they occur on the basis of pre-defined indicators, and analysing them. Impact should not be estimated in advance ("there could be an impact / there could not be an impact" based on suppositions or experience) as only observation over time will show if there was, or not.

Continued on next page

1.2 Presentation of the study, Continued

Purpose of OGI for the IOC

As indicated previously, the idea for the OGI study was born from the IOC's desire to develop an objective and scientific analysis of the impact of each edition of the Olympic Games. By this means, the IOC will build up a powerful and accurate knowledge base of the tangible effects and legacy of the Games. In turn this will enable the IOC to fulfil two of its principal objectives as enshrined in The Olympic Charter:

- to encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and require that the Olympic Games are held accordingly; and
- to promote a positive legacy from the Olympic Games to the Host cities and the Host countries.

The OGI project allows the IOC to analyse the impact of the Games on a given Host City, region and country. Based on the findings and analysis of the OGI study from each Games edition, the IOC aims to integrate the appropriate changes to maintain the long-term viability of the Games in keeping with the ideals of the Olympic Movement. These key conclusions will be adopted and integrated into the IOC guidelines and processes thus forming the framework for future Games organisers.

Furthermore, as part of its transfer of knowledge programme, the IOC considers that the OGI results will serve to improve the quality of the legacy left by the organisation of the Games.

Scope

▸ IPC

General Scope

The scope of the OGI study covers the three internationally recognised areas of sustainable development:

- Economic
- Socio-cultural
- Environmental
-

Inclusion of Paralympics

To be comprehensive, the study is also interested in the impacts of the Paralympic Games. This dimension is integrated within relevant indicators or is captured by Paralympic-specific indicators (refer to section 1.5 for additional detail).

Continued on next page

1.2 Presentation of the study, Continued

Scale

Presentation

Spatial boundaries of impact are multidimensional: local, regional, national and global scales are variously affected by the different types and scopes of sports events. Various geographic areas of study are to be taken into account in order to measure the Games' impacts.

Scale of OGI study

Three territorial notions are proposed to take account of the different areas affected by the organisation and impact of the Olympic Games:

- Country
- Region
- City

Recommendation and definition proposal by OCOG / Research Partner(s)

These notions must be precisely defined by the OCOG / Research Partner(s) (in particular the city and region geographical boundaries) during the indicator finalisation phase of the study prior to G-66. The established territorial boundaries could be different for some indicators if there is a valid justification (i.e.: availability of statistics or relevance of the effects...).

Duration

In order to have a comprehensive overview of the impacts of an Olympic Games in a Host City, its region and country, the monitoring duration must be significant in order to take into account and illustrate the evolution that occurs in these three geographical areas.

The OGI study covers a period of twelve years. This period commences two (2) years prior to the Host City election and continues through to three (3) years after the Games.

However, the impact of an Olympic Games is not necessarily limited to a defined period and could be measured long after the end of the OGI study. Ideally the study could be continued after the prescribed time imposed by the IOC, in order for the Host City and its partners to continue observing the on-going long-term impacts, with consistent, existing parameters, of their Games.

Continued on next page

1.2 Presentation of the study, Continued

Organisation

Choice of a Research Partner

The OGI study will involve a number of different actors. Due to the scope and scale of the OGI study, an OCOG may choose to collaborate with an independent Research Partner(s), which will conduct the research, collect the relevant data and subsequently analyse and interpret them for the OGI reviews and reports (see below).

This may be a single entity, or a consortium of various entities. Although the collaboration with an external Research Partner(s) is not an obligation, the duration of the OGI study and the time and effort required to successfully conduct the study, should be taken into account when deciding upon the approach to be taken.

Objectivity of the OGI study

It is critically important that the OCOG does not choose a Research Partner(s) that could imperil the objectivity of the study by commercial or political involvement. The Partner selection should be confined to independent organisations in order to provide the most objective study possible.

There is no possible commercial affiliation between the Research Partner and the OGI study.

1.3 Olympic Games Impact Indicators

Introduction

All OGI indicators should inform on the impact of staging the Games at the local, city or national level. Within each indicator there should normally be a 'context element' or baseline, and an 'event element' or impact component.

There are two categories of indicators:
- Context
- Event

For the OGI study indicators are classed into three categories:
- Mandatory
- Optional
- Additional (as proposed by OCOG / stakeholders / Research Partner)

Context indicators

An indicator is referred to as a context indicator if what it measures relates more to the environment in which the Games will be staged, the general context (general data), a broader scale or is not directly related to the Games. These indicators monitor contextual data within the Host City and its region, such as crime rates, sports participation, public transport, education levels and water quality. They help in the comprehension of the general system of the host context by giving a snapshot of the local environment.

Event indicators

The organisation of the Olympic Games generates numerous activities within their host context, ranging from those that are a direct result of the staging of the Games, such as the construction of competition venues or the Olympic Village(s), to those that are a more indirect consequence, such as National sport development, the evolution of hotel infrastructure or Olympic induced housing in the city. An indicator is referred to as an event indicator if what it measures is directly related to the Games, or if it is highly probable that the staging of the Games will have an impact upon what is to be measured by that indicator.

Relationship between context and event indicators

By monitoring the context indicators over time, one can understand the general evolution of the host context in which the Games impact will be measured by the event indicators. The following tables gives the classification and relationship between the indicators (a detailed description of the indicators is available in Chapter 3.0 of this Manual).

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
ENVIRONMENTAL			
Natural System			
Water		En1 – Renewable fresh water use (En1)	
		En2 – Public water supply (En2)	
	En3 – Water quality (En3)		
Air		En4 – Greenhouse gas emissions (En4)	En20 - Greenhouse gas emissions of Olympic Games
	En5 – Air Quality (En5)		
Soil		En6 – Land use changes (En6)	En21 – Olympic-induced land use changes (En27)
Biodiversity		En7 – Protected sites (En7)	En22 - Olympic venues in protected sites
		En8 – Threatened species (En9)	
Used/developed system			
Agriculture			En23 – Food production consumed during Olympic Games (En32)
Built System			
Housing	En24 - Olympic induced housing	En9 – Housing Areas (En17)	En24 - Olympic induced housing
Sport and leisure		En10 – Public open-air leisure areas (En16)	
Olympic venues		En25 – Indoor air quality (En19)	
			En26 – Capacity of Olympic Venues (En35)
			En27 – Life-cycle inventory of Olympic Venues (En34)
			En28 – Operating and maintenance of Olympic Venues (En37)
Transportation		En11 – Transport networks (En20)	En29 - Olympic induced transport infrastructure
		En12 – Daily travelling distance (En21)	En30 – Olympic transport impacts (En38)
		En13 – Road congestion (En22)	
Energy		En14 – Energy consumption by source (En42)	En31 - Olympic energy consumption
		En15 - Energy consumption by use (En43)	
		En16 – Energy self-sufficiency (En44)	

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Relationship between context and event indicators (continued)

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
Physical flows		En17 – Raw material consumption (En15)	
		En18 – Solid waste treatment (En23)	En32 - Solid waste production of Olympic Games
	En33 - New waste and wastewater treatment facilities	En19 – Wastewater treatment (En26)	En33 - New waste and wastewater treatment facilities
Impact assessment			
			En34 - Life-cycle inventory of Olympic and Paralympic Games
SOCIO-CULTURAL			
Political system			
Political apparatus		So1 - Political representation (So1)	So25 - Political involvement in the organisation of the Games (So29)
			So26 - Deferment and abandonment of public policies (so34)
Legal apparatus		So2 - Legislative activity (So6)	So27 - Votes connected with the Olympic and Paralympic Games (So32)
	So3 - Pressure groups (So7)		
Public participation		So4 - Community centres and associations (So16)	So28 - Consultation with specific groups (So35)
			So29 - Opinion polls (So57)
		So5 - Minorities	So30 - Participation of minorities in Olympic and Paralympic Games
		So48 - Accessibility of public services	
Socio-cultural system			
Human development	So31 - Homeless, low-rent market and affordable housing	So6 - Poverty and social exclusion (So8)	So31 - Homeless, low-rent market and affordable housing
		So7 - Educational level (So9)	So32 - Olympic and Paralympic educational activities (So42)
		So8 - Crime rates (So10)	
		So9 - Health (So11)	
		So10 - Nutrition (So12)	
		So45 - Support network for disabled people	

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Relationship between context and event indicators (continued)

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
Culture		So11 - Cultural activities (So17)	So33 - Olympic and Paralympic arts designers and participants (So36)
			So34 - Cultural programme (So41)
			So35 - Recognition of Olympic and Paralympic logos and mascots (So40)
Perception		So44 - Perceptions about people with disabilities in society	
Sports system			
Sports for all		So12 - Sport and physical activities (So19)	
		So13 - School sports (So20)	
		So14 - Available sports facilities (So21)	
		So15 - Exclusion, discrimination, racism and violence in sport	So36 - Reported complaints about racism, discrimination and violence during the Games
		So46 - Professional sport education for people with disabilities	
Top-level sport		So16 – Top-level sportsmen and women (So22)	
		So17 – Professional Leagues (So 23)	
		So18 – World and continental championships (So27)	
Olympic system			
Olympic sports		So19 – Results at the Olympic and Paralympic Games and World Championships (So24)	
			So37 – National sport development (So54)
Anti-doping control		So20 - National anti-doping controls (So28)	

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Relationship between context and event indicators (continued)

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
Olympic organisation			So38 – Volunteers (So37)
			So39 – Spectators (So49)
			So40 - Attending events - affordable Games
			So41 - Promotion of minorities and indigenous population (people with disabilities, youth, seniors, equity seeking groups)
			So42 - People working in context activities (non-accredited)
Olympic venues			So47 - Sustainability of accessibility provisions in Olympic and Paralympic venues
Media and technology			
Sport media coverage		So21 – Media specialising in sport (So25)	
		So22 – Sports broadcasting (So26)	
	So43 – Host city's media image (So58)		
Information and technology		So23 - Information media (So14)	
		So24 - Information and communications technology (So15)	
ECONOMIC			
Real system			
Employment	Ec27 – Jobs created in Olympic and context activities (Ec35)	Ec1 – Employment by economic activity (Ec1)	Ec27 – Jobs created in Olympic and context activities (Ec35)
			Ec28 – Composition of committees by sector (Ec30)
		Ec2 – Employment indicators (Ec4)	
Private businesses		Ec3 – Size of companies (Ec2)	
			Ec29 - New Olympic / Paralympic-related businesses
		Ec4 – Quality management of companies (Ec3)	Ec30 – Size and quality management of contracted companies (Ec33)

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Relationship between context and event indicators (continued)

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
Transport		Ec5 – Motor vehicle population (Ec6)	Ec31 – Olympic Family vehicles (Ec37)
		Ec6 – Public transport (Ec7)	
Tourism		Ec7 – Accommodation infrastructure (Ec8)	
		Ec8 – Accommodation occupancy rate (Ec9)	
		Ec9 – Tourist nights (Ec11)	
			Ec32 – Breakdown of visitor spending (Ec48)
	Ec10 – Airport traffic (Ec10)		
Attractiveness		Ec11 – Foreign organisation establishments (Ec12)	
		Ec12 – Hosting of international events (Ec13)	
Monetary system			
Wages and income		Ec13 – Wages (Ec17)	
		Ec14 – GINI income distribution index (Ec19)	
Prices		Ec15 – Consumer price index (Ec20)	
		Ec16 – Price indexes (Ec21)	
	Ec17 - Hotel price index		
	Ec18 - Real estate market		
Trade balance		**Ec19 – Economic balance (Ec22)**	
Attractiveness		Ec20 – Dynamics of service activities (Ec23)	
		Ec21 – Investment risks (Ec25)	
		Ec22 - Foreign direct investment	
Olympic budgets			Ec33 – Structure of OCOG revenue (Ec38)
			Ec34 – Structure of OCOG expenditure (Ec39)
			Ec35 – Total operating expenditure (Olympic activities) (Ec42)
			Ec36 – Total capital expenditure (Olympic activities) (Ec43)

Continued on next page

1.3 Olympic Games Impact Indicators, Continued

Relationship between context and event indicators (continued)

Sphere / System	Context & Event Indicator	Context indicator	Corresponding Event indicator
			Ec37 – Total capital expenditure (context activities) (Ec45)
			Ec38 – Total wages paid (Olympic activities) (Ec46)
			Ec39 – Catalyst effects of the Games (Ec40)
			Ec40 - Ratios specific to Olympic activities (Ec41)
Fiscal system			
Public economy		Ec23 – Economic role of the state (Ec26)	
		Ec24 – Structure of public spending (Ec27)	Ec41 – Public share of expenditure (Olympic activities) (Ec49)
			Ec42 – Public share of expenditure (context activities) (Ec50)
		Ec25 – Structure of fiscal revenue (Ec28)	Ec43 – Tax revenue from Olympic activities (Ec51)
Public debt		Ec26 – Public debt (Ec29)	
		Ec44 - Employability of people with disabilities	

1.3 Olympic Games Impact Indicators, Continued

Mandatory Indicators

These indicators have to be monitored by the OCOG / Research Partner(s). Modifications are not allowed on the definition of the indicator, however are permissible on its measurement.

Optional Indicators

A number of indicators are presented within the Technical Manual as optional. An OCOG has the opportunity of referring to these indicators, including them within the study as proposed within this Manual and / or modifying them where applicable in order to match its own initiatives.

Additional Indicators

Presentation

In addition to the mandatory and optional indicators, it is strongly recommended that the OCOG and its stakeholders incorporate their own objectives into the OGI study.

This is done through the inclusion of additional indicators that reflect the legacy objectives of the OCOG and its stakeholders. By incorporating these additional indicators within the study, the various actions undertaken by the OCOG and its stakeholders can be monitored on a regular basis and in a structured form. As all data is centralised and common to all parties, the OGI study becomes a viable and effective communication tool.

Additional indicators become an integral part of the OGI study

Once the additional indicators have been identified by the OCOG and its stakeholders and reviewed by the IOC, they become an integral part of the study and are therefore considered as mandatory. In that respect, they will have to follow the format and delivery planning of the overall OGI study.

Collected Data

For each indicator, a presentation sheet is found inside this Technical Manual. In addition, the IOC provides a data collection sheet for each indicator. For the purpose of this study, the IOC will require submission of both the data collected for each indicator (using the data collection sheet) and separately, reviews and reports analysing the data provided.

See Chapter 2.0 for a list of the requirements and deliverables, and their related timings, for the OGI study.

1.4 Benefits of Implementing the Study

Introduction

This section provides guidelines on how an OCOG could use the OGI study for its benefit.

Incorporation of external stakeholders

Presentation

By giving the OCOG the possibility of including additional indicators within the study, it facilitates the integrated collaboration between the OCOG and its stakeholders at an early stage of its planning. Through the study, synergies in effort and finance can be sought and achieved.

Example: London 2012 approach to the OGI study

In common with any Host City, it is important for local, regional and national government bodies to be able to evaluate and communicate the outcomes of the Games – in other words to justify public expenditure on such an iconic and one-off project and to be able to track the legacy benefits.

It was therefore obvious from an early stage in the OCOG cycle, that stakeholders were intent on developing impact and benefits evaluation studies. These were aligned with official London 2012 Programme Strategic Objectives which had been agreed by all parties in early 2006 (ca 8 months post Host City election).

The first imperative was to ensure that the various studies in prospect would be complementary and non-duplicative. Given the mandatory requirement to deliver OGI, the London 2012 Organising Committee set about forming an OGI Steering Group (first meeting in April 2006 – G-75), which brought together the key stakeholders from government and the delivery bodies. All parties were supportive of the concept of OGI and felt it important first to understand the scope of the project and its relevance to the London and UK context.

Management

The OGI study can be used as a dynamic management tool which allows the organisers and their stakeholders to have an overall vision of the impact of their activities and investments made in the framework of staging the Games.

Used actively, the OGI study offers the organisers a means of understanding the effects of certain actions undertaken and to make adjustments if necessary. The regular collection of indicator data could provide valuable information to the OCOG for monitoring the actual impact of the Games' organisation. Should this data show an off-course move that may indicate a risk for the OCOG and its stakeholders, it could be identified at a very early stage and enable proactive decisions to be made to minimise negative impacts and/or enhance positive legacy prospects.

Continued on next page

1.4 Benefits of Implementing the Study, Continued

Management (continued)

It can also be used as a tool to demonstrate the positive contribution of holding the Games in terms of local and regional development.

For host cities, this alignment of contemporary performance measures and longer-term outcome measures is an important way of streamlining the process and provides opportunities for cost efficiencies in terms of data collecting and management, as well as for reporting and assurance functions.

Communication

OGI study data and analyses could be used as a common and centralised communications tool, between all parties, in order to signify positive or negative trends in the progression of the organisation of the Games. It can provide all parties with consistent and non-duplicative data which will facilitate coherent communications between all involved.

As the OGI study and mandatory reviews and reports emanating from the study are based on a long-term perspective (12 year period), with a set of standard research parameters across all Games editions, OGI represents a key instrument in identifying the impact of the Games on each Host City, region and country and may serve as a natural confirmation of the basic mission of the OCOG and the decision of the Host City to organise the Games.

The IOC will not pro-actively communicate the results of the OGI study before receiving the final document published by the OCOG at G+36. It is noted however, that the key points emanating from the different reviews and reports received during the 12 year period will be disseminated within the IOC to key personnel for information and in order to be able to respond in an informed and correct manner to any OGI related questioning. It is noted that the IOC may use the reports and data for its own communication purposes.

Communication on the OGI study by the Organising Committee should be done conjointly with the IOC.

1.5 Paralympic-specific information

Introduction

This section presents the approach, rational and methodology to define and measure the impact of the Paralympic Games within the OGI study.

For detailed information on the International Paralympic Committee (IPC) and the Paralympic Games refer to the Technical Manual on Paralympic Games.

Impact of the Paralympic Games

Just as there are numerous fields of possible impact in relation to the Olympic Games, there are also areas of impact that are unique to hosting the Paralympic Games.

The two principal areas are as follows:

- Impact of the activities necessary in hosting the Paralympic Games
- Legacies occurring from hosting the Paralympic Games

Impact of the activities necessary to stage the Paralympic Games

Hosting the Paralympic Games, with the required level of safety and comfort necessarily means that venues, facilities and services need to be adapted to suit the enhanced needs of an increased amount of users with disabilities. Therefore, the impact of activities serving this cause should be considered as relevant to the OGI study.

The OCOG, the Host City and its partners need to ensure that every resident of the city and every visitor will have full access to all activities that constitute the "Games experience". In order for this to be possible the conditions that form barriers to this objective need to be removed. Such barriers may not only be architectural; attitudinal, political, economical and educational barriers may also affect an individual's chances to fully participate in and experience the Games.

Therefore, creating an accessible and inclusive environment should be amongst the key objectives for an OCOG and its Host City. Providing accessible services and infrastructure to the widest range of potential users is important for the Olympic Games, but it is absolutely critical for the Paralympic Games because of the number of persons with disabilities amongst the Paralympic client groups.

Continued on next page

1.5 Paralympic-specific information, Continued

Impact of the Paralympic Games (continued)

Legacies occurring from staging the Paralympic Games

There are many important legacy fields, primarily in relation to the socio-cultural sphere, that occur in the Host City / region because of hosting the Paralympic Games.

Such fields can be classified into four broad areas:

- Accessible infrastructure in sport facilities and in the overall urban development
- Development of sport structures / organisations for people with disabilities, from grass-roots to elite level
- Attitudinal changes in the perception of the position and the capabilities of persons with disabilities as well as in the self-esteem of the people with disabilities
- Opportunities for people with disabilities to become fully integrated in social living and to reach their full potential in aspects of life beyond sports

The impact of the Paralympic Games in these fields can become the catalyst for achieving legacies that affect the life of people with disabilities in the Host City, region and country.

United Nations Treaty for the Rights of People with Disabilities

The theoretical framework of potential legacies derives from the United Nations (UN) Treaty for the Rights of People with Disabilities that was adopted by the UN General Assembly in December 2006. Amongst the various aspects of the Treaty, several areas are provisionally considered as areas in which hosting the Paralympic Games could contribute in progressing:

- Equality and non-discrimination
- Awareness raising
- Accessibility
- Protection of the integrity of the person
- Living independently and being included in the community
- Personal mobility
- Freedom of expression and opinion and access to information
- Education
- Health
- Habitation and rehabilitation
- Work and employment
- Adequate standard of living and social protection
- Participation in political and public life
- Participation in cultural life, recreation, leisure and sport

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1.5 Paralympic-specific information, Continued

Purpose & Objectives of the IPC related to the OGI study

The organisation of the Paralympic Games may have a catalyst effect in the life of people with disabilities in the Host City / regional context and could have a significant influence in aspects such as tolerance to diversity and active citizenship.

Integrating the Paralympic Games into the OGI study provides the opportunity to objectively measure such impacts and legacies that occur and that can be attributed to the Paralympic Games.

In addition to measuring the impacts, the IPC intends to establish processes and resources (tools, networks and partnerships) to synthesize the Paralympic data and information captured by the OGI study into solid outcomes.

This will enable IPC to:

- Help current and future bidding cities and Games organizers to maximize the positive impact and legacy opportunities from hosting the Paralympic Games
- Set strategies and initiatives and align Paralympic Games' requirements and activities, so that targeted legacies can occur.

In the long term, the IPC considers that the OGI results will serve to demonstrate, to a wide audience, the positive and lasting effects of hosting major events for elite athletes with disabilities as well as the means of achieving them.

Paralympic Games Impact Indicators

In order to capture the Paralympic Games impacts in the four principal areas indicated previously, and in the areas specified under the United Nations Treaty, the IPC developed and introduced Paralmypic elements into the OGI study.

This was done by the:

- Inclusion of new data fields into existing OGI indicators, where relevant and pertinent
- Creation of specific Paralympic indicators to measure specific aspects of the Paralympic impact and / or legacy.

The Paralympic specific indicators follow the same format and methodology as the OGI indictors.

Additional Indicators

Additional indicators may be proposed for inclusion, reflecting strategies and initiatives undertaken by the OCOG and its stakeholders that are related to the Paralympic Games and are expected to have an impact or legacy effect that is not already covered by existing indicators.

Continued on next page

1.5 Paralympic-specific information, Continued

Collection of data

For indicators containing Paralympic elements it is critical that the Paralympic-related data is accurately collected, via reliable and recognized sources, so that data analysis for the Paralympic Games impact can be effective.

Benefits for the OCOG by OGI Paralympic elements

The OCOG and the Host City authorities can benefit significantly by the integration of the Paralympic Games within the OGI study.

Targeted outcomes may be set in the previously indicated impact and legacy fields, actions undertaken, evaluation of interim outcomes and rectification of plans so that targeted outcomes are accomplished.

It is also probable that sporting organisations and other agencies representing people with disabilities in the Host City / region or country are willing to work with the OCOG to action lasting and sustainable legacies. The OGI study could be seen as a means of bringing all parties together in order to produce a complementary and non-duplicative study.

2.0 → Study Requirements and Operation

Overview

Introduction This section lists the contractual requirements of the OGI study, the various actors involved and the work involved.

Contents This section contains the following topics:

Topic
2.1 Requirements
2.2 Roles and Responsibilities
2.3 How to work on the study
2.4 IOC Capture Requirements
2.5 Paralympic-specific information

2.1 Requirements

Introduction

This section describes all functional requirements and recommendations linked to the contractual requirement of delivering the OGI study.

Deliver the Olympic Games Impact study △

As stated in the Host City Contract, the OCOG is contractually required to deliver the Olympic Games Impact study, following the methodology, planning requirements and deliverables set out by the IOC in this Manual.

Components of the study

There are three essential components to the study:
1. Data collection
2. Analysis
3. Reporting

Data collection will emanate from a variety of sources and could potentially be complex. It will include standard information sources and bespoke data collected by the OCOG and stakeholders. Quality assurance will be an important part of ensuring the validity and objectivity of the data.

Research Partner Selection

Recommendation

The OCOG can collaborate with an independent Research Partner(s) which will conduct the research, collect the relevant data and subsequently interpret them for the OGI reviews and reports. Or the OCOG may prefer to contract a Research Partner purely for the analysis and reporting elements of the project and to provide the raw data via its own systems and those of its stakeholders.

The Research Partner may be a single entity, for example a University, or it may be a consortium of various entities. It is recommended that the OCOG is able to illustrate the objectivity of the selected Partner(s) in order to ensure efficient and believable communication of the results of the study.

Presentation of the Research Partner(s) selected and the working processes between the all relevant parties is required at G-66.

Continued on next page

2.1 Requirements, Continued

Research Partner Selection (continued)

Example: Beijing 2008 approach to Research Partner Selection

In order to select a partner for the data collection and analysis needed for the OGI study, BOCOG put forward a tender which was awarded to the Renmin University of China (RUC). Subsequently the RUC assigned its experts and scholars to establish an OGI team. Considering the complexity of OGI, a university was deemed to be the best partner capable of hosting the research due to its capacity to gather experts from multiple disciplines. A representative of BOCOG is present at all key OGI meetings of the RUC, follows the administration of the project, and acts as a link between BOCOG, RUC, the Chinese National Olympic Committee (NOC) and the IOC.

Reviews and reports to the IOC

OGI reviews are provided to the IOC from G-48 onwards. Reviews and reports contain the relevant completed data collection sheets together with an interpretation of the data contained within. The initial conclusions of the OGI study are included within the Official Report that is submitted to the IOC at G+12. The final report is presented at G+36. It must be noted that prior to the initial report being presented, a significant amount of indicator review and validation work will be required. This work is conducted by the OCOG and its stakeholders, with regular consultation with the IOC.

Planning

The following table lists the deliverables the OCOG is required to produce during the 12 year OGI study period:

D.(*)	Time	Subject	Description
1	G-66	Study finalisation (part of Games Foundation Plan)	**OGI Section of Games Foundation Plan** • Complete list of indicators to be studied by the OCOG • Per indicator, the agreed-upon modifications within the permitted scope of modifications i.e. metrics or definitions where needed to comply with local environment, • Additional OCOG specific indicators presented as per the OGI format, • Definition of the geographical zones covered with supporting maps (city / region / country), • Definition of terminology where relevant per indicator, • The approach used to implement the study • Presentation of the Research Partner(s) selected (if such a strategy is chosen), • The sharing of responsibilities and working processes between the OCOG (and stakeholders), the NOC, and the Research Partner

Continued on next page

2.1 Requirements, Continued

Planning (continued)

D.(*)	Time	Subject	Description
2	G-48	Impact Review	**Impact Review #1** • Preliminary report including the initial data on the context indicators in order to illustrate the situation in the city, region and country at the time when the city's official Olympic candidacy was announced, together with current data. • A preliminary interpretation should be proposed in order to link the indicators relevant to the development programmes described in the bid.
3	G-24	Impact Review	**Impact Review #2**
4	G+12	Initial Conclusions (part of Official Report)	**OGI section of Official Report** • Summary of the development presented in the previous reviews, with an initial point of view on all the factual indicators. • Report is submitted as part of the Official Report of the Games. • Formatting and language requirements of the Official Report are contained within the Technical Manual on Information Management.
5	G+36	Final OGI Report	**Olympic Games Impact study (final report)** • Full development of all the indicators, with analysis and interpretation, placing into perspective the legacy projects mentioned in the bid file and the developments identified subsequently.

(*) Deliverable number

Date of submission The exact date (month and day) within the year of submission for each deliverable listed in the above-table will be decided conjointly with the IOC within the year that follows the Host City election.

Continued on next page

2.1 Requirements, Continued

Data submission

Delivery of raw data is to be made with every review / report listed within the above-table.

The submission of data related to any indicator at any stage of the OGI study is to be made using the data collection sheets provided by the IOC. These sheets will be provided to the OCOG electronically after the Host City election. The data sheets will be modified at G-66 to reflect the amendments made by an OCOG to the indicators. These changes are to be inserted directly into the data collection sheet using track changes and submitted to the IOC as such for review. For additional indicators, the OCOG will be required to provide similar data collection sheets to the IOC for review, before submission of any data.

2.2 Roles and Responsibilities

Introduction

This section presents the various roles and responsibilities of the different actors intervening in the process of the organisation of the Olympic Games Impact study.

NOC

As set forth in the Host City Contract, the National Olympic Committee (NOC) bears responsibility for all required deliverables from an OCOG following its dissolution. Given the duration of the OGI study, the NOC will most likely be ultimately responsible for the delivery of the final report at G+36.

It is recommended that the NOC is involved in the selection of the Research Partner(s) and is kept informed as to the progress of the OGI study, in order to provide continuity and ensure that the final OGI document is delivered to the IOC as required. The working relationship between the NOC and the Research Partner(s), following the dissolution of the OCOG, should be discussed and agreed upon prior to the staging of the Olympic Games. The NOC should identify a person responsible for this task and provide the IOC with contact details prior to the dissolution of the OCOG.

OCOG

The OCOG has the overall responsibility for delivery of the OGI deliverables, in association with the Research Partner(s).

The OCOG will be the primary point of contact for the IOC in all matters relating to the OGI study until its dissolution. It is the OCOG's responsibility to keep all relevant parties informed as to the progress of the study and to ensure an efficient hand-over to the NOC prior to its dissolution.

Research Partner(s)

The relationship with the Research Partner will depend on the agreement the OCOG and the NOC enter into.

If the OCOG selects to work with an external Research Partner(s), they must be in a position to work on an independent basis, free from political and commercial pressure, and be able to conduct the study in an objective manner (see section 1.2)

IOC

The IOC has overall responsibility for defining the study, the deliverables, planning and any other requirements needed to preserve the integrity thereof. The IOC has no financial responsibility in an OCOG's implementation of the OGI study.

The IOC collects, analyses and classifies the OGI impact reviews and reports received from the OCOG and its Research Partner(s). The IOC reviews and approves any modifications to the existing OGI indicators, together with the additional OCOG indicators to be incorporated within the study.

The IOC provides assistance and support where necessary and facilitates communication between the different Organising Committees.

2.3 How to work on the study

Introduction

As OGI is a long term study it is very important, for an efficient and effective work structure, that OGI be considered as a tool which can be integrated into the main tasks of the OCOG.

Link with Candidature Process

As outlined in the documents provided by the IOC to Applicant and Candidature Cities, review of and preliminary work on the OGI study is recommended during the Candidature bid phase. This preparatory work should include:

- Recommendation to conduct a feasibility study prior to determining the study's structure within the OCOG, commencing data collection and reporting
- Recommendation to include stakeholders early in the process

As the OGI study period encompasses the candidature phase, addressing these elements during this period could provide significant benefits at a later point and could prove to be valuable to a bidding city to analyse the impact of the bid process in itself. This may prove a valuable communications element.

Resources

As indicated above, it is recommended to conduct a feasibility study prior to determining the study's structure within the OCOG and commencing the data collection and reporting. Preparation of the OGI study could take a considerable amount of time and it is crucial to include stakeholders as soon as possible in order to facilitate their contribution to the study. The early identification of data sources will also prove beneficial.

Sourcing information

There are many ways to approach the implementation of the OGI study. One of the main issues an OCOG will be faced with is from where to source the requested OGI data.

Normally a multitude of organisations and publications exist in each Host City and country capable of assisting the OCOG in this task. Many governmental bodies and non-government organisations regularly collect data that is requested within the OGI study. Many of these bodies publish and distribute data either via their websites or via printed publications that can be relatively easily sourced and adapted to complete the OGI data collection sheets.

As indicated previously, it is recommended that an evaluation is commenced during the candidature phase in order to identify the existing sources that will be able to provide recognised and reliable data to the study.

Continued on next page

2.3 How to work on the study, Continued

Sourcing information (continued)

It is noted however that OCOGs should expect to have to source a large amount of original data. General information sources are not likely to be sufficiently disaggregated to provide a sufficient basis for impact evaluation without at least some additional data. Much of the new material required should be central to an OCOGs own information management system (e.g. income and expenditure accounts, procurement records, workforce, quantities of materials consumed, competition results…). Other clients, such as government and municipalities should also consider how their standard information and data collecting protocols might best be adapted to reflect the potential impacts of the Games.

Appendix 1 of this Technical Manual provides a list of international data sources.

Strategy

It is recommended for the best use of the OGI study that the OCOG and its clients define their strategy to incorporate OGI into their own objectives (see section 1.4 Benefits):

- Define strategic objectives
- Develop targets and action plans
- Use key performance indicators to measure outcomes
- Understand causality
- Establish verifiable sustainability reporting system

2.4 IOC Capture Requirements

Introduction

This section describes the requirements for delivering the requested information (data and reports) to the IOC.

Format of data submission

To facilitate the task of the OCOG the IOC compiled a data collection sheet for each indicator. These data collection sheets are linked to the way the information is requested in this Technical Manual. The data collection sheets are provided electronically to an OCOG after the Host City election.

As indicated previously it could be likely that the requested information is not available in the same format or according to the same calendar as indicated in the data collection sheets. The OCOG and the Research Partner(s) therefore have the possibility of modifying, where applicable, the data collection sheets. These modifications are to be provided to the IOC for approval prior to G-66 (see section 2.1 Requirements).

Format of OGI reviews and reports

As indicated, the OGI study is the responsibility of the OCOG. The structure of the OGI reviews and reports are not directed by the IOC and the OCOG has the freedom to chose the format it feels is best suitable.

It is recommended that the analysis of the collected data encompass the three domains i.e. environment, economic and socio-cultural, and explains the context of the most significant changes in the evolution of the data. When referring to a specific field, it is recommended that the related indicator code is noted for easy comprehension and reference. It is recommended that the analysis document is succinct and easily understood by the layman.

Graphics and maps could facilitate the reading and comprehension of the OGI reviews and reports and should be provided with the data collection sheets where applicable and within the analysis document.

2.5 Paralympic-specific Information

Introduction

This section presents requirements and recommendations for effective delivery of the Paralympic elements of the OGI study.

Research Partner Selection

The selected Research Partner(s) should also be responsible for, and capable of, collecting the requested Paralympic-related data.

It is noted that when selecting a Research Partner(s), the ability to conduct research related to attitudes and perceptions about people with disabilities should be taken into consideration. As attitudes play a crucial role in the position of people with disabilities in society, agencies and institutions specialized in this particular field may be in a position to conduct such research in a more efficient way.

For other information regarding "Research Partner Selection" please refer to Sections 1.2 and 2.1.

Indicator Finalisation

The IPC and the IOC will jointly review the proposed modifications to existing indicators that capture Paralympic data.

Roles and Responsibilities

NPC

The National Paralympic Committee (NPC) of the host country should be consulted from the early stages of the study.

The NPC may be in a position to suggest a suitable Research Partner(s) and assist in data sourcing from entities managing issues related to disability. The NPC should be kept informed as to the progress of the OGI study.

IPC

The IPC collaborates with the IOC in actively assisting in the development of the Paralympic specific indicators and requested data of the OGI study.

The IPC can provide guidance and support to the OCOG regarding the definition of the requested Paralympic data if required.

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2.5 Paralympic-specific Information, Continued

Sourcing Information

Within the evaluation to identify reliable sources of information of indicators data, local, national and international sources related to sports for people with a disability and other disability and accessibility issues should be identified and contacted.

To that effect, in the Host City and country there are organisations, such as people with disabilities' associations, governmental agencies, educational institutions and non-governmental organisations that are active in research and collection of information related to various aspects related to disability and accessibility that could be sourced.

Listed in Appendix 1 of this Manual are some reliable international data sources specialized in this field, or that include aspects for people with disabilities amongst their activities.

Strategy

The OCOG has a unique opportunity to align its objectives related to the organisation and hosting of the Paralympic Games with the methodology set forth for implementation of the OGI study.

The OCOG may set targets and objectives, measure the impact of scheduled activities (e.g. educational initiatives, promotions and accessibility enhancement plans) and adjust its strategy accordingly (e.g. in ticketing strategy, public awareness and communications).

Format of OGI reviews and reports

Refer to Section 2.4

3.0 → Indicators and Forms

Overview

Introduction

This chapter lists all the indicators necessary to collect raw data that will then be used by the OCOG / Research Partner to produce the OGI reports.

Structure

All the indicators are identical in structure and include the following sections:

Part	Description
Sphere	Links the indicators to one of the three recognised areas of sustainable development
Type and frequency	The type indicates whether the indicator captures the impact in the context – context type – or in the Olympic event – event type; the frequency indicates the periods over which the indicators should be measured
Geographical area	Indicates the area of reference where the requested information is gathered: city, region and country
Status	Indicates whether an indicator is "mandatory" and therefore essential to the study and must be monitored or whether an indicator is "optional" and not required to be monitored. (Refer to section 1.3)
Definition	Defines the dimension that the indicator should target
Purpose	Describes why the indicator is relevant and the type of information that it is supposed to supply. It serves as a reference when the evaluation procedure or calculation method proves inadequate
Calculation method and measurement unit	This section describes a method that can be used to gather the information, specifying the calculation method and measurement unit of the indicator
Measurement procedure	Specifies the main steps needed for measuring the indicator, depending on the purpose and the methods that are available

3.1 → Environmental Indicators

Overview

Introduction This section lists all indicators relevant to the environmental sphere.

En1 – Renewable Fresh Water Use

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual.
Geographical Area	Region and country
Status	Optional

Definition

The "renewable fresh water use" indicator shows the degree to which renewable water resources are being exploited to meet water consumption demands. Renewable fresh water reserves include groundwater reserves and surface water (lakes and rivers). It takes in account the internal flow and the external flow of rivers and ground water coming from neighbouring countries. Water consumption includes water for agricultural needs (irrigation), industrial needs (production, power plants, etc.), and domestic use (for municipal use, public services and household use).

Purpose

This context indicator shows the degree to which total renewable water resources are being exploited to meet the country's/region's water demands. It measures the overall pressure on the fresh water resources. It gives an indication of the vulnerability of a country/region to water shortages. The indicator can show to what extent freshwater resources are already used, and the need for adjusted supply and demand management policy.

Calculation method and measurement unit

Annual withdrawals of freshwater (ground and surface water) as a percent of total renewable water

- Unit of measurement of indicator : percent (%)
- Unit of measurement of water resources and consumption : millions of m3 per year

Total renewable fresh water resources = Internal flow + Actual external inflow of surface and groundwaters.

Internal flow is the total volume of river run-off and ground water generated in natural conditions, exclusively by precipitation within the country. The internal flow is equal to precipitation less actual evapo-transpiration and can be calculated or measured.

Continued on next page

En1 – Renewable Fresh Water Use, Continued

Calculation method and measurement unit (continued)

Actual external inflow of surface and ground waters refers to the total volume of actual flow of rivers and ground water coming from neighbouring countries.
The indicator should be disaggregated to show total renewable water resources and withdrawals for different users: agricultural consumption (including irrigation), industrial consumption without cooling, electrical cooling and public water supply.

Measurement procedure

This indicator is part of the UN indicator framework of sustainable development. National Data for "total renewable fresh water resources" is provided by the UN Statistics Division. For sub-country and regional data, the country's source statistics (water authorities, water supply utilities) should be consulted in order to compile the indicator based on the same definitions.
Water demand varies considerably between regions, depending on natural conditions, economic and demographic structures. For some countries, calculation of the indicator should be done at sub-national levels.
Wherever possible, the indicator should consider withdrawals and water resources at the basis of a watershed in which the host city is located. Data availability should be checked.

En2 – Public Water Supply

General Indicator Information

Field	Water
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Optional

Definition

Public water supply refers to water supplied by both public bodies and private companies involved in the collection, purification and distribution of water.

Purpose

This indicator shows the access to a regular, clean and safe supply of water, essential to maintaining human health and a key component of sustainable development. Connecting to a public water supply not only reduces the risk of water borne diseases, it provides water for drinking, cooking, hygiene and washing, and is associated with improved health, in general.

Calculation method and measurement unit

Total public water supplied per capita is calculated by dividing the total public water supplied by the total population of the geographical area.
Percent of population connected to public water supply is calculated by dividing the number of people connected to the public water supply by the total population of the geographical area.
Measurement units:

- Total public water supply (PWS): million of m^3
- Total PWS per capita : m^3 per person per year
- Population connected to PWS: percent (%)

Measurement procedure

National Data for "public water supply" is provided by the UN Statistics Division. At city and regional levels, the necessary information should be obtained from municipalities, water companies, water supply departments and statistical offices.

En3 – Water Quality

General Indicator Information

Sphere	Environmental
Type and Frequency	Context and event. Monthly
Geographical Area	City and region (especially Olympic venues)
Status	Mandatory

Definition

Water quality will be measured for three main pollution problems,:

1. Bathing water (coastal waters, rivers and lakes): concentration of intestinal enterococci and faecal coliforms (Escherischia coli). This indicator is particularly important for Olympic Summer Games, where competitions are held in natural waters
2. Eutrophisation of lakes and pounds: total phosphorus and nitrate concentrations.
3. Eutrophisation of rivers: orthophosphate and nitrate concentrations

Purpose

People are very concerned about water quality in sea, coasts, rivers and lakes. Knowing they have a clean and safe water to swim or play in is an important factor in their choice of a holiday or weekend destination. Also for the tourist industry, clean and safe water is an important argument to attract visitors to an area. This indicator reveals the possible impact of recreational use of coastal and freshwater environments upon the health of users, and specifically on the health of the athletes competing in and on the aquatic environment. The most frequent adverse health outcome associated with exposure to faecally contaminated water is enteric illness.

Large inputs of nitrogen and phosphorus (nutrients) to water bodies from urban areas, industry and agricultural areas can lead to eutrophication. This causes ecological changes that can result in a loss of plant and animal species and have negative impacts on the use of water for human consumption and other purposes.

This indicator reveals the initial situation for water at each site connected with future Olympic activities and in the principal water bodies and watercourses in the region.

Calculation method and measurement unit

Parameters for bathing water quality:

1. Concentration of intestinal enterococci (faecal streptococci), expressed in terms of the 95th percentile of numbers of intestinal enterococci (IE) per 100 ml. Method of analysis: ISO 7899
2. Concentration of Escherischia coli (EC), expressed in terms of the 95 percentile of numbers of escherischia coli (EC) per 100 ml. Method of

analysis: ISO 9308-1

The frequency for routine monitoring is two analysed samples per month. Monitoring frequency should be adapted to the bathing water quality (fewer samples for excellent bathing water, more samples for poor bathing water). This indicator can be aggregated to the percentage of sites where the WHO limits are exceeded.

See "WHO (2003). Guidelines for safe recreational water environments. Volume 1 : Coastal and fresh waters." and WHO (2000). Monitoring Bathing Waters - A Practical Guide to the Design and Implementation of Assessments and Monitoring Programmes. Published by F & FN Spon".

Parameters for nutrients in freshwater:
1. Concentration of nitrate is expressed as mg nitrate (NO3)/l
2. Concentration of orthophosphate and total phosphorus as microgram P/l

The results will be expressed in annual mean concentrations for rivers and lakes. Baseline data should also be provided.
For more information, see the European Environment Agency's Core Set of Indicators (CSI 020 Specification - Nutrients in freshwater).

Measurement procedure

National and regional water monitoring bodies are possible sources for this indicator. Such measurements should be carried out on Olympic venues in the case of environmental impact assessments.

En4 – Greenhouse Gas Emissions

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	Region and country .
Status	Mandatory

Definition

According to the definition of the Intergovernmental Panel on Climate Change (IPCC), adopted by all the signatory countries to the United Nations Framework Convention on Climate Change, this indicator groups together man-made emissions of a basket of six greenhouse gases (Kyoto Protocol): carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbon (PFC) and sulphur hexafluorides (SF_6), given as CO_2 equivalents.

Purpose

There is growing evidence that emissions of greenhouse gases are causing global surface air temperatures to increase, resulting in climate change. The potential consequences at the global level include rising sea levels, increased frequency and intensity of floods and droughts, changes in biota and food productivity and increases in diseases. Efforts to reduce or limit the effects of climate change are focused on limiting the emissions of all greenhouse gases covered by the Kyoto Protocol. All data are without removals from land use, land use change and forestry.

Calculation method and measurement unit

The various emissions are calculated from national usage of fuels and solvents, taking industrial and agricultural processes as well as waste treatment processes into account. These emissions are converted into CO_2 equivalents on the basis of their global warming potential (GWP).

The indicator then adds together all the emissions in the form of CO_2 equivalents, in millions of tonnes per year. See "Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (1996). and "IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (2000).

The main indicator shows change (in percent) between the base year and the current reported year. The base year for the three Kyoto gases (CH_4, CO_2 and N_2O) is for most States 1990. The indicator should be disaggregated to provide information on emissions from sectors: energy industries; transport; industry (processes and energy); other energy; fugitive emissions; waste; agriculture and other non-energy. If possible, the indicator should also be provided for the region.

Continued on next page

En4 – Greenhouse Gas Emissions, Continued

Measurement procedure

The data required to compile this indicator are available at national and international level (IPCC, UN); they are collected periodically so that an annual data can be calculated.

En5 – Air Quality

General Indicator Information

Sphere	Environmental
Type and Frequency	Context and Event. Monthly and specific times (daily/hourly during Games Period)
Geographical Area	City and region
Status	Mandatory

Definition

The following are considered representative atmospheric outdoor pollutants in urban areas, which have short- and long-term impacts on the human health and on athletes' performances: sulphur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O3), fine suspended particles with an aerodynamic diameter of 10 micrometers or less (PM10).

Purpose

This indicator measures air quality in urban areas, comprising the city and urban areas in the region, especially the Olympic venues in this region. Exposure to outdoor air pollution exceeding risk or threshold levels is associated with a broad spectrum of acute and chronic health effects ranging form irritant effects to death. Sulphur dioxide is directly toxic to humans, its main action being on the respiratory functions. Short-term exposure to nitrogen dioxide may result in airway and lung damage, declining lung function and increased responsiveness to allergens following acute exposure. Exposure to high ozone concentration for periods of several days can have adverse health effects, in particular inflammatory response and reduction in lung function. Epidemiological studies have reported statistical significant associations between short-term, and especially long-term exposure to increased ambient particular matter (PM) concentrations and increased morbidity and (premature) mortality. PM levels that may be relevant to human health are commonly expressed in terms of PM_{10} meaning particulate matter which passes through a size-selective inlet with a 50% cut-off at 10 µg/m3 aerodynamic diameter. Health associations for the $PM_{2.5}$ fraction are even more clearly evident.

Calculation method and measurement unit

The concentration of each atmospheric pollutant is measured hourly by fixed sampling points and the results are then reported annually. The indicator is calculated individually by particular methods for each pollutant that are accepted by the WHO. The indicator expresses the number of days when the air quality limit is exceeded divided by the total number of days when validated measurements are taken (% per year). This requires regular monitoring of the atmospheric pollutants.

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En5 – Air Quality, Continued

Calculation method and measurement unit (continued)

Sulphur dioxide (SO_2), particulate matter (PM_{10}) and nitrogen dioxide (NO_2): for each measuring station, the number of daily averaged concentration in excess of the national and WHO daily limit value for SO_2 or the annual limit value for NO_2 and PM_{10} is calculated from the available hourly or daily values.

Ozone (O_3): for each measuring station, the number of hourly averaged concentration in excess of the national and WHO short-term limit for O_3 is calculated from the available hourly values.

If PM_{10} and/or $PM_{2.5}$ measurements are available, they should be used. However, if the necessary monitoring is not yet in place, total suspended particulates (TSP) can be used instead.

As reference the national and recommended WHO limits should be considered. The national limits can provide information for the national citizens; the WHO limits will permit a comparison between Olympic host cities. In any case, it is important to provide the basis monitoring data without statistical treatment, so that other indicators can be calculated.

During the Olympic Games, the air pollution should also be measured and compared to the same period of previous years.

Measurement procedure

The data are available from local and urban/regional air quality networks. The most important Olympic venues should be covered by measuring stations, like the Olympic Village, the track-and-field stadium and Olympic clusters. If some venues are particularly exposed to air pollution, additional measuring stations should be installed.

En6 – Land Use Changes

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Initial situation and final situation
Geographical Area	City, region and country
Status	Mandatory

Definition

Land use changes between the main land use categories: urban fabric, industrial, commercial and transport units, agricultural (arable land, permanent crops, pastures, heterogeneous agricultural areas), forests, natural grasslands, unproductive (open spaces with little or no vegetation) and wetlands. The indicator will also include the extent of derelict and contaminated land in urban areas.

Purpose

The land, and the way it is managed, affects the entire environment. It is important to monitor changes in land use, especially facing rapid urbanization, urban sprawl and new related infrastructures. There is a continual need to reconcile the requirements for additional land for important uses such as housing, industry, commerce and retailing with a desire to protect the countryside and agriculture. Sustainable land use means efficient land use within the city through targeted urban development, minimising the take up of agricultural and natural land (greenfield sites) and enhancing developed land through restoration and upgrading. This indicator provides a periodical appraisal of the land available and the balance between used, usable and unusable areas. It also shows how land use changes over time, even though the measurement is only done twice (initial and final).

Calculation method and measurement unit

Land use is most often monitored by satellites images and at 10 year periods. An initial situation before the building of the Olympic venues should be defined, in relation with the availability of land use data. The final situation has to be after the Olympic Games. Again, the date will depend on the availability of land use data. Changes will than be measured over a 10+ year period (this period can change according to national monitoring programs). Sums of areas for each land use category per geographical entity (country, region, city) can be generated. A two-way table (with all the land-use categories of the initial and final period) can than show all combinations of land change (land use which hasn't changed, new urban areas, etc.).

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En6 – Land Use Changes, Continued

Calculation method and measurement unit (continued)

Results can be expressed in km2 and in percentages (%).
For urban areas, data should also be provided for the extent of derelict and contaminated land (area in km2) for city and region. This type of urban land can be restored through renovation, conversion of derelict buildings, redevelopment of derelict land for new urban uses, including public green spaces and cleaning of contaminated land.

Measurement procedure

Land areas can be calculated from current land register plans or by means of satellite observation. The situation can thus be monitored, usually at 10 year intervals.

En7 – Protected Sites

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

Area of internationally, nationally and regionally protected natural, historical and cultural areas.

Purpose

Protected areas are a form of defence against changes in land use and in other human activities. The measures to conserve or restore biodiversity are taken at different geographical and policy levels (international, national or regional). The indicator concentrates on the trends of protected area. The total relative area of these sites illustrates the importance afforded to the protection and conservation of the natural (ecosystem) and cultural (developed or built) heritage. The evolution of this indicator shows political drive towards conservation or neglect of this heritage.

Calculation method and measurement unit

Cumulated area of protected areas (on different policy levels) divided by the total area of the geographical unit, expressed in percentage (%).The categories are based on the system in force in the country and region. A 'natural site' category must be set up and shown.

Measurement procedure

The data needed to compile this indicator can be collected from the national and regional natural heritage agencies.

En8 – Threatened Species

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Initial and final situation
Geographical Area	Region and country
Status	Optional

Definition

This indicator shows the number of animal and plant species which are threatened. "Threatened" species refers to the number of species considered "endangered" and "vulnerable".

Purpose

For many years, the World Conservation Union (IUCN) has monitored the extent and rate of biodiversity degradation by assigning species to red list categories through detailed assessment of information against a set of objective, standard, quantitative criteria. This assessment is made at the global level. This indicator is a synthetic view of the trends towards a loss of biodiversity.

Calculation method and measurement unit

For each type of species, the number of known species and the percentage of vulnerable and endangered species are reported.

Species considered "endangered" are species in danger of extinction and whose survival is unlikely if the causal factors continue operating.
Species considered "vulnerable" are species believed likely to move into the "endangered" category in the near future if the causal factors continue to operating.

The indicator is documented for the following sub-categories:

- Animals: Invertebrates, Fishes, Reptiles, Amphibians, Birds and Mammals
- Plants: vascular plants, mosses, lichens, fungi and algae.

An assessment of the situation before the construction of the Olympic venues and after the Games should be made. The specific years depend on data availability and the periodicity of the national surveys. Often only partially updates are made by sub-categories.

Measurement procedure

The data must be collected from nature protection agencies, planning departments and environmental agencies.

En9 – Housing Areas

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator provides the residential area occupied by formal and informal settlements. The indicator measures both the size and the residential density of both formal and informal settlements. In addition, the floor area (total living space) per person is given.

Informal settlements refer to (a) residential areas where a group of housing units have been constructed on land to which the occupants have no legal claim or which they occupy illegally and (b) unplanned settlements and areas where housing is not in compliance with current planning and building regulations (unauthorized housing). Formal settlements refer to land zoned residential in city master plans or occupied by formal housing.

Purpose

By focusing on the legality of human settlements, this indicator measures the marginality of human living conditions. Settlements characterized by illegality of tenure and unauthorized shelter are generally marginal and precarious, and do not cater for basic human needs such as affordable housing. They affect sustainable human settlements development, human health, and socioeconomic development.

Calculation method and measurement unit

- Residential area occupied by formal settlements : km2, number of occupants and occupants per km2
- Residential area occupied by informal settlements : k2, number of occupants and occupants per km2
- Ratio of total living space to the number of inhabitants (m2/habitants)

Measurement procedure

Formally and informally built residential areas can be measured by various means: mapping, aerial or satellite imaging. The ratio of total living space to the number of inhabitants and the number of inhabitants can be found from census data.

En10 – Public Open-air Leisure Areas

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Mandatory

Definition

Public open-air leisure areas include any developed areas accessible to all for any kind of leisure activity (walking, picnicking, relaxation, sport, etc.). Areas may be developed to a greater or lesser extent, from a cross-country trail through a forest to landscaped parks and gardens including sporting grounds.

Purpose

The amount, location and quality of public open-air leisure areas in urban centres influences the quality of the urban environment for residents. Green spaces offer recreational opportunities and contribute to the aesthetics of the environment. Urban green spaces can also be important for biodiversity, providing habitat for some species.

Public open areas are defined as public parks, gardens or open spaces, for the exclusive use of pedestrians and cyclists, open-air sport facilities, accessible to the public free of charge and private areas (agricultural areas, private parks) accessible to the public free of charge.

Equitable access to public open-air leisure areas regardless of functional or sensory limitations is a key element for the quality of life and the welfare of people with such limitations. Hosting the Olympic and Paralympic Games provides opportunities to enhance accessibility to these areas for people with disabilities. This indicator gives an overview of the evolution of the possibilities for people with disabilities to access different areas, based on basic accessibility criteria (see annex3).

Monitoring this indicator can thus reveal any changes in the public open-air areas of the city or region.

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En10 – Public Open-air Leisure Areas, Continued

Calculation method and measurement unit

Data requested are:

- The total number of public open air leisure areas
- The total number of public open air leisure areas which comply with accessibility criteria (list in annex 3)
- The percentage of accessible areas within the total areas
- The percentage of open air leisure areas compared to the total built areas in the City/Region
- The ratio between the number of inhabitants and the areas they have access to
- The ratio between the number of inhabitants with the areas they have access to, that comply with accessibility criteria
- The number of inhabitants living within 300m of such an area, which is larger than 5 km2.

Measurement procedure

The competent local and regional agencies (town and country planning, etc.) are the direct sources for this indicator.

En11 – Transport Networks

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Mandatory

Definition

The transport networks taken into account in this indicator are as follows: roads, cycle paths, pedestrian streets, railways, underground railways and tramways, waterways.

Purpose

This indicator makes a periodical assessment of transport routes in the city and region. It is broken down sufficiently for changes or increased development to be observable for each type. A comparison of the types of transport route reveals local transport priorities.

Calculation method and measurement unit

The usable length in km of each type of transport route is recorded. Roads refer to motorways, main or national highways, secondary or regional roads, and others. In principle, the indicator refers to all public roads, streets and paths, but not private roads.

The indicator shall be expressed in absolute values (km) and in density, i.e. length of networks divided by the total area of the geographical unit (km/km2).

Measurement procedure

The competent local, regional and national agencies (town and country transport authorities, etc.) are the direct sources for this indicator.

En12 – Daily Travelling Distance

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Initial and final situation
Geographical Area	Region and country
Status	Optional

Definition

This indicator measures the mobility of citizens living in the geographical area by expressing the number of trips that, on average, each citizen makes during the day, the reason for the trips, the average distance travelled and the modes of transport used.

Purpose

The citizens' mobility in an urban context is important with regard to both the quality of life of those directly involved (time devoted to trips, frequency of traffic congestion, costs, etc.) and to the level of environmental pressure exerted by mobility. There is a close linkage between mobility and other important themes in an urban context, including air quality and carbon dioxide emissions, noise, road safety, space consumption and urban landscape.

Calculation method and measurement unit

The data collected by surveys shall document:

a) the total number of trips (split into type of trip, mode of transport) and average time take for trips
b) Distance in km per capita per day, percentage of each mode and percentage for each type.

Reason for trip: school, work, recreation, social relationships, shopping and other reasons. Mode of transport: walking, cycling, motorcycle or moped, private car (passenger or driver), taxi, collective transport (bus, tram metro, local railway), combined "park & ride (use of a private car and public transport).

For those who answered "private car" or "park & ride" the number of passengers during the trip and the type of parking place (private parking, public parking - paid, free parking) should be added.

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En12 – Daily Travelling Distance, Continued

Calculation method and measurement unit (continued)

The surveys should also include people with disabilities as a sub-group for comparison. This will document variations compared to the general population and the evolution through the years. This subgroup may be subdivided into disability groups.

Measurement procedure

Data is derived from surveys of urban mobility. These surveys are made at regular intervals (most often 5 or 10 years). Local or national statistics are possible sources for this indicator. If they are not available, a survey will be required.

En13 – Road Congestion

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Monthly – Daily during Games period
Geographical Area	City and region
Status	Optional

Definition This indicator measures the duration and extent of very slow-moving and stationary road traffic in the city and region per month.

Purpose This measurement shows how well the road system in the city and region is functioning and how well it meets the users' needs.

Calculation method and measurement unit Two types of data are recorded: the duration in hours per day of very slow-moving (< 10 km/h) and stationary traffic and the extent in km per day of such slow or stationary traffic. A monthly mean is calculated for each of these figures. Data is collected daily during the Game period.

Measurement procedure The sources for compiling this indicator are the traffic police and highway monitoring agencies.

En14 – Energy Consumption by Source

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

The total amount of energy consumed annually in the area, broken down by fuel: fossil fuels (petroleum, natural gas, coal), nuclear energy, renewable energy (hydroelectric, solar, geothermal, tidal, wind, biomass and waste).

Purpose

This indicator monitors the evolution of energy consumption by fuel, distinguishing between renewable resources and non-renewable (fossil and nuclear) resources. This indicator describes the development of energy sources and the corresponding levels of consumption. The environmental impact of each fuel is very specific. The consumption of fossil fuels gives an indication of resource depletion, green gas emissions (En4) and atmospheric gas emissions (En5). The part of nuclear energy gives an indication of the amount of nuclear waste generated and the risks associated with radioactive leaks and accidents. Renewable energy consumption gives a measure of the contribution from technologies that are more environmental-friendly, produce no (or very little CO_2) and significant lower levels of other pollutants. Renewable energy can have impacts on landscapes and ecosystems.

Calculation method and measurement unit

The total energy consumption (or gross inland consumption) is calculated as the sum of the total energy consumption from solid fuels, oil, gas, nuclear and renewable sources. The amount of each energy fuel – fossil, nuclear, renewable – is measured in gigajoules. The indicator should also be expressed by per capita energy consumption, dividing the total energy consumption by the population of the geographic area.

This indicator can additionally be expressed as the total energy intensity, the ratio between the total energy consumption and the Gross Domestic Product (GDP) calculated for a calendar year.

Measurement procedure

Data on the production and consumption of energy products are available for most countries at national level and for some at infra-national level.

En15 – Energy Consumption by Use

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	Region and Country
Status	Optional

Definition

The amount of final energy consumed each year in the area, broken down according to the type of sector: industry, transport, households, services and agriculture.

Purpose

The trend in final energy consumption by sector provides a broad indication of progress made in reducing energy consumption and associated environmental impacts by the different end-use sectors. It can be used to help monitor the success of key policies that attempt to influence energy consumption and energy efficiency.

Calculation method and measurement unit

Final energy consumption in industry covers the consumption in all industrial sectors with the exception of the "energy sector". Final energy consumption in transport covers the consumption in all types of transportation, i.e., rail, road, air transport and inland navigation.

Final energy consumption in households covers quantities consumed by households, excluding the consumption of motor fuels for personal transport. Household consumption covers all use of electricity and use of fuels used for space and water heating. Final energy of services consists of consumption of public administration and private services.

Final energy consumption in agriculture consists of quantities consumed by agriculture, including engines used for agricultural transportation, and fisheries industry, but excluding fishing on the high seas. The amount of final energy consumed by each type of sectors measured in gigajoules.

Measurement procedure

Data on the production and consumption of energy products are available for most countries at national level and for some at infra-national level.

En16 – Energy Self-sufficiency

General Indicator Information

Sphere	Environment
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition The proportion of total energy imported as a percentage of total energy consumption.

Purpose This indicator shows the degree of energy self-sufficiency of the country or region.

Calculation method and measurement unit The ratio of total annual energy imports (in GJ) over total annual energy consumption (in GJ). The ratio is given as a percentage.

Measurement procedure Data on the production and consumption of energy products are available for most countries at national level and for some at infra-national level.

En17 – Raw Material Consumption

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

This indicator covers the consumption of the following raw materials used in the construction sector: timber, steel, aluminium, cement, stone, sand and gravel.

Purpose

The global consumption of key raw materials is rising fast in the world. By measuring the physical movement of materials between the economy and the environment, it is possible to draw up a material flow account which balances the inputs (extraction of natural resources in the country and imports of goods) with the outputs (wastes, emissions and exports) and accumulation of stock (in terms of new buildings, etc.). Sustainable development is achieved by improving resource productivity. This indicator shows a portion of the resources extracted in the country and their use in the city or region. Annual monitoring reflects local construction activity.

Calculation method and measurement unit

This indicator calculates the amount, in millions of tons, of raw material consumption per year, broken down according to the six types defined above. For each geographical unit (country and region), the domestic extraction (or production) and the imports from outside should be provided.
The indicator shall be represented in absolute values (millions of tons) and in relative values, "kg per person per year" and "kg per 1000$ of GNP".

Measurement procedure

National and region statistical data form the basis of this indicator. More and more countries also publish a material flow accounting.

En18 – Solid Waste Treatment

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator covers all solid waste produced in the geographical entity by type of waste, by economical sector and by type of treatment and disposal.

Purpose

Waste represents an enormous loss of resources in the form of both materials and energy. The amount of waste produced can be seen as an indicator of how efficient we are as a society, particularly in relation to our use of natural resources and waste treatment operations. This indicator is related to En17 Raw material consumption.

Calculation method and measurement unit

Waste produced by type is broken down into three types of waste: organic, mineral and hazardous.

Waste produced by sector is broken down in the following sectors: mining and quarrying, sewage sludge, dredged materials, household, commercial, industrial, construction & demolition. Agricultural wastes is not included.

Waste disposed by type of disposal is broken down in the following sectors: landfill, incineration (with or without energy recycling), green recycling, dry recycling, mineral recycling, special wastes final disposal, other.

For the region, the type and quantity of waste which is exported should also be indicated. This gives the measure of the self-sufficiency of the region (this figure is not required for the city).

The quantities of solid waste are measured in tonnes per year. The total waste produced by sector should also been indicated in kg per person and per year.

Measurement procedure

The agencies in charge of waste collection are the basic sources for this indicator. Further information may be obtained from national and local statistics and from city authorities.

En19 – Wastewater Treatment

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator tracks the success of policies to reduce pollution from wastewater by describing the trends in the percentage of the population connected to public wastewater treatment plants with different levels of purification.

Purpose

Wastewater from households and industry represents a significant pressure on the water environment because of the loads of organic matter and nutrients as well as hazardous substances. The first part of the indicator shows the level of population which is connected by sewers to public wastewater treatment plants. The type and level of treatment before discharge determines also the scale of impacts on the aquatic systems.

Calculation method and measurement unit

Percentage of the population connected to public wastewater treatment plants.
Percentage of population connected to primary, secondary and tertiary (with phosphorus or nitrogen removal) wastewater treatment plants.
Primary (mechanical) treatment removes part of the suspended solids.
Secondary (biological) treatment uses aerobic or anaerobic micro-organisms to decompose most of the organic matter and retain some of the nutrients.
Tertiary (advanced) treatment removes the organic matter. It can include phosphorus retention and nitrogen removal.
Total quantity of wastewater (in millions of m^3 per year) treated in primary, secondary and tertiary wastewater treatment plants.

Measurement procedure

Data can be provided by water protection agencies. Further information may be obtained from national and local statistics and from city authorities.

En20 – Greenhouse Gas Emissions of Olympic Games and Paralympic Games

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Annual
Geographical Area	City and region
Status	Mandatory

Definition

This indicator measures all the direct and indirect greenhouse gas emissions of the Olympic Games and Paralympic Games, broken down by sector.

Purpose

This indicator groups together man-made emissions of six greenhouse gases (Kyoto Protocol): carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbon (PFC) and sulphur hexafluorides (SF_6), given as CO_2 equivalents. The emissions are converted into CO_2 equivalents on the basis of their global warming potential (GWP).
The total emissions of the Olympic and Paralympic activities are calculated on a world-wide basis (no limitations to national borders), including air transportation which is a main component of the emissions of the Olympic and Paralympic Games. Context activities are not taken in account.

Calculation method and measurement unit

The emissions are broken down by sectors (Olympic venues, spectator, media and Olympic family transportation, air, train and car transport, etc.).
A global direct estimation method is used, integrating the emissions of all the activities linked to the Olympic and Paralympic Games. For example, the emissions of spectators (or athletes) travelling to the Games are taken in account regardless of the fact that they travel on a regular flight or a charter flight.

Measurement procedure

The greenhouse gas emissions can be calculated on the basis of indicator En31 Olympic energy consumption and En34 Life-cycle inventory of the Olympic and Paralympic Games.

En21 – Olympic-induced Land-Use Changes

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Initial and final situation and Games Period
Geographical Area	City and region
Status	Mandatory

Definition

This indicator focuses on temporary and permanent land-use changes induced by Olympic competition, non-competition and training venues.

Purpose

The Olympic Games will change directly and indirectly the land use of the Olympic venues and related infrastructure (transport infrastructure mainly). This indicator makes an evaluation of temporary and final land-use changes and takes also in account compensation measures.

Calculation method and measurement unit

For every Olympic venue and Olympic-related infrastructure an initial, Games-time and final inventory (two years after the Olympic Games) is made of the different land uses expressed in ha. Land uses can be considered on different levels, such as primary land use (forest, arable land, permanent crops, industrial, commercial, transport, natural grasslands, wetlands unproductive lands) and secondary land use (protected areas, wastelands, contaminated land, parks, demolished facilities, etc.). Compensation measures such as reforestation, new biotopes (like wetlands, ponds, etc.), new parks and new protected natural areas should also be listed as they give a picture of the environmental measures taken to compensate the impacts of the new land use. A prognosis of the Olympic situation and the final situation should be given one year before the Olympic Games.

Temporary land use changes should also be highlighted. This means that after the Olympic Games, the land will be returned to its initial situation before the Games.

This indicator is directly related to the context indicators En6 "Land use changes" and En7 "Protected sites".

Measurement procedure

The information should be provided by the OCOG or the related agencies that are responsible for building the venues and the infrastructure. Further data may be obtained from maps or aerial or satellite imaging.

En22 – Olympic and Paralympic Venues in protected sites

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Initial and final situation
Geographical Area	City and region
Status	Mandatory

Definition

Some Olympic and Paralympic venues or competitions are conducted in or very near protected sites. This indicator measures the total surface of Olympic activities in or near protected sites and related compensation measures. A protected site is a natural, historical or cultural area protected on international, national or regional level.

Purpose

This indicator measures the potential impact of Olympic venues or competitions on or near protected sites and the Olympic measures taken to compensate these impacts.

Calculation method and measurement unit

The indicator gives the cumulated area of Olympic venues, expressed in hectares, which are located directly in or near protected sites (at a distance less that 1 km). The indicator is broken down in two parts, the first part is the total area where competitions are held (without destruction of the natural sites) and the second part is the area that is destructed permanently or temporarily by the building of venues.

The total cumulated area of compensation measures is also given, broken down by type of measure and type of compensation. Compensations measures can for example be new protected sites or new biotopes that are specially made to compensate impacts.

Measurement procedure

The planners of the Olympic venues and facilities should provide this data. The data can also come from environmental impact assessments.

En23 – Food Production Consumed during Olympic Games and Paralympic Games

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Specific time: Games Period
Geographical Area	City and region
Status	Optional

Definition

This indicator shows the food consumed during the Olympic Games and Paralympic Games (i.e., sold or distributed on the sites connected with Olympic activities), the part of "biological" produced food and their origin. Of the total amount of food consumed, the amount of food produced by regional and national agriculture is determined and broken down in each case according to the sustainable development criteria for agriculture chosen by the country.

Purpose

This breakdown highlights two dimensions: the first is the degree of involvement of local and national production in feeding the Games, and the second is the existence or absence of established sustainable development criteria for agriculture.

Calculation method and measurement unit

Data is collected for six items (the first five are in tonnes, the sixth is qualitative):

1. The total amount of food sold or distributed on the sites connected with Olympic activities.
2. The amount of food in item 1 that originates in the region.
3. The amount of food in item 2 whose production complies with the national sustainable development criteria for agriculture.
4. The amount of food in item 1 that originates in the country (excluding that accounted for in item 2).
5. The amount of food in item 4 whose production complies with the national sustainable development criteria for agriculture.
6. The national sustainable development criteria for agriculture.

Measurement procedure

For item 6, where this criterion exists, information will be available from the authority in charge of agriculture or the environment. For the other five items, the catering companies under contract to the OCOG must be approached to compile these amounts.
Items should be broken down by Games (Olympic / Paralympic).

En24 – Olympic induced Housing

General Indicator Information

Sphere	Environmental
Type and Frequency	Context and event. Initial and final situation
Geographical Area	City and region
Status	Mandatory

Definition

This indicator measures the total net floor area of residential housing built directly or indirectly for the Olympic Games and Paralympic Games. The Olympic villages and the media villages form the direct residential housing. Indirect residential housing is the housing planned within urban regeneration or new developments linked to the Olympic Games.

Purpose

One of the major legacies of the Olympic and Paralympic Games is new housing areas. The Games themselves need a lot of housing for athletes and media. These are very often transformed into residential housing after the Games. Many cities use the Games for new development operations on a very large scale. This indicator measures, in quantitative terms, the net increase in housing related to the Olympic and Paralympic Games.

Calculation method and measurement unit

Net floor area of residential housing built directly or indirectly for the Olympic Games. The net floor area is the difference of the residential area built minus the residential area destructed for Olympic venues or context activities (major infrastructure projects).

The percentage of such housing that is fulfilling accessibility regulations/criteria (or being "adaptable" for potential residents who have a disability) is an important legacy of the Paralympic Games and will be also be measured by the indicator. This should be presented as a percentage of the net floor area identified.

Measurement procedure

The OCOG and the city's and region's urban planning departments can provide the data.

En25 – Indoor Air Quality

General Indicator Information

Sphere	Environmental
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator measures the air quality in indoor sports facilities in the city and in Olympic venues.

Purpose

Since breathing is intensified in sport, good-quality air must be provided in indoor sports facilities (such as gymnasiums, velodromes, swimming pools, skating rinks and other indoor venues).

Calculation method and measurement unit

Two figures are reported for this indicator: the mean quality for each facility (gymnasiums, velodromes, swimming pools, skating rinks, and other indoor venues) and the number of facilities exceeding the national standards, which also gives the measurement unit.

Typical indoor atmospheric pollutants are: carbon monoxide (CO), formaldehyde, lead, ozone (O_3), radon, sulphates, sulphur dioxide (SO_2), volatile organic compounds (VOC), and particulates.

If national standards do not exist for Indoor Air Quality of sport facilities, the following publications can be used as reference: "Jo Immig & Sarah Rish. Indoor Air Quality Guidelines for Sydney Olympic Facilities. March 1997. TEC Green Office, Sydney" and "Air quality guidelines for Europe - Second Edition, 2000. WHO Regional Publications, European Series, No. 91".

Measurement procedure

Measurements are taken on site by a qualified scientific team. The accepted standard is set by the competent authorities.

En26 – Capacity of Olympic and Paralympic Venues

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Initial and final situation and Games Period
Geographical Area	City and region
Status	Mandatory

Definition

For each venue the total capacity (spectator capacity, floor area) of the venue is indicated for the pre-Games Period, during the Games and after the Games.

Purpose

This indicator focuses on the total capacity of the venues taking into account pre-existing venues, the Olympic and Paralympic mode and post-Olympic reassignment and redevelopment.

This indicator also investigates the accessible capacity of the venues in order to measure how they respond to accessibility standards for Olympic and Paralympic venues and how suitable they are for post-Games usage as barrier-free venues available to the widest range of users.

Calculation method and measurement unit

The use of Olympic and Paralympic venues can change over their life-cycle, from an initial situation (pre-Olympic), during the Olympic Games, during the Paralympic Games and after the Games (redevelopment and reassignment).

All the separate venues are listed by name, a summary is made for all subsequent uses, and then classing them in four groups: socio-cultural, professional sport, sport for all (public use) and other. For each venue their total capacity, expressed in total spectator capacity and total floor area is given in m^2. They are also broken down into permanent and temporary seating and floor area according to the type of development.

Temporary areas are part of the venue overlay and include trailers, tents, etc. The floor area of these temporary areas is broken down by type.
Spectator capacity is broken down into temporary and permanent seating and into standing and sitting places.

For each venue, the number of users with a disability that the venue can accommodate is determined, classified by the kind of disability (ambulant, wheelchair, visual, hearing) and by the types of users with a disability (athletes, spectators etc.).

Continued on next page

En26 – Capacity of Olympic and Paralympic Venues, Continued

Measurement procedure The OCOG can provide the information needed to compile this indicator.

En27 – Life-cycle Inventory of Olympic and Paralympic Venues

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Specific times: During the Foundation Planning and after completion of the venue (from G-84 to G-12)
Geographical Area	City and region
Status	Mandatory

Definition

The life-cycle inventory of an Olympic or Paralympic venue assesses the inputs and outputs of energy and materials during the major stages of the life-cycle of the venue. Four dimensions are examined: amount of material used, grey energy (energy needed in production and construction) required, CO_2 equivalent emissions, NOx and SO_2 equivalent emissions.

Purpose

This indicator provides an overall, synthetic view of the inputs (energy and raw materials) used for the life-cycle of an Olympic or Paralympic venue and the outputs (water effluents, airborne emissions, solid wastes, other) that are released into the environment. It allows for an efficient and sustainable design of the venue integrating a global and long-term view of the impacts on the environment. Specific measures can be taken to reduce the inputs and outputs of the venue.

Calculation method and measurement unit

The construction process of each venue is broken down into four mandatory phases (Earthworks, Foundations, Carcass work and Finishing work) and two optional phases (Redevelopment and Dismantling). The work involved in these phases is established in accordance with the Building Cost Classification (BCC). A list of materials used is drawn up for each phase.

The inputs taken in consideration are energy (including grey energy i.e. energy needed in production and construction), divided in renewable and non-renewable energy, raw materials (see also indicator En17) and water.

The outputs include water effluents (volume of water and wastewater), atmospheric pollutants (NOx, SO_2), CO_2, solid waste and other environmental releases.

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En27 – Life-cycle Inventory of Olympic and Paralympic Venues, Continued

Calculation method and measurement unit (continued)	The inputs and outputs can then be summed for each phase and for the whole venue. Where existing facilities are demolished, this stage is taken into account before the earthworks, under the same headings.
Measurement procedure	The contracting authority, the architects and the contractors involved are the immediate sources for the compilation of this indicator.

En28 – Operating and Maintenance of Olympic and Paralympic Venues

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Annual and Games Period
Geographical Area	City and region
Status	Mandatory

Definition

As soon as the work is complete, a venue requires manpower, energy, water and finance for its maintenance and operation and also produces waste and wastewater. This indicator focuses on these resources and outputs.

Purpose

As life-cycle analysis shows, the resources needed to operate and maintain a venue are very important and often not integrated in the planning. A sustainable design of these venues should include and plan for this phase

In addition several resources are required for the transition of specific venues from the Olympic to the Paralympic mode.
This transition will also require manpower, energy, water and finance. This indicator allows the following-up of these operations.

Calculation method and measurement unit

Permanent manpower need to operate the venue is expressed in man-years per year. Operations costs are expressed in US$ per year and in % of the construction costs.

Temporary manpower needed to adapt venues from Olympic to Paralympic use is expressed in man-years, one-off. The costs of the transition are expressed in US$ and in % of the operating costs of the Olympic period.

The energy used per venue is measured in kilowatt hours and is based on two figures: electricity consumption and heating consumption for all maintenance and operational activities. The waste production per venue resulting from these same activities is given in kg and is broken down into four types: organic, mineral, hazardous and special. The wastewater produced is given in m3. These flows are also expressed in kWh, kg or m^3 per spectator and event.

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En28 – Operating and Maintenance of Olympic and Paralympic Venues, Continued

Calculation method and measurement unit (continued)

When measuring the Games period, only the incremental costs should be assigned to the Paralympic Games (i.e operating costs for the Paralympic period plus maintenance and repairs costs, after the Olympic Games, to get the venue suitable for the Paralympic Games).

Measurement procedure

The contracting authority and the venue operators are the immediate sources for the compilation of this indicator.

En29 – Olympic induced Transport Infrastructure

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Annual.
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator gives a list and the main characteristics of all transport infrastructures projects directly related to the Olympic and context activities. It separates the projects specifically needed for the Olympic Games from the general transport infrastructure already planned and accelerated before the Olympic Games.

Purpose

Host cities must adapt their main transport infrastructure to be able to organise the Olympic Games and absorb the peak transport demands on the Olympic venues. But most host cities also use the Olympic Games as a catalyser and accelerate their general transportation infrastructure plans. Total capital expenditure of context activities can be much higher then the expenditures of Olympic activities.

Calculation method and measurement unit

For each transport infrastructure project, the following data are given:

- Name of the project
- Localisation of project
- Authority or private organisation owner of the project
- New project or already planned project, Olympic or context activities
- Type of project (highway, main roads, venue access roads, railway, airports, public transport, etc.) and main characteristics (2 lanes, 4 lanes, high-speed train....). The same categories as indicator En11 should be used.
- Date of first planning of the project, start of construction, end of construction/opening
- Length of the project (expressed in km)
- Peak transport capacity (vehicle/hour, persons/hour)
- Total investments (local currency and US dollars) and funding sources (national, regional, local, public or private) in percent of total investment
- Indication on whether the project is accessible or not for people with disabilities

Measurement procedure

The national, regional and local authorities can provide the data for this indicator. A list of projects is annually updated to provide an overview of the state of planning. This indicator gives also direct input to indicators Ec41 and Ec42.

En30 – Olympic Transport Impacts

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. Daily during the Games Period
Geographical Area	City and region
Status	Mandatory

Definition

This indicator focuses on the environmental impacts of the Olympic transport system (train, buses, dedicated vehicles) linking the official Olympic and Paralympic sites.

Purpose

Passenger transport from one place to another (e.g., a journalist from the press centre to a competition venue or a competitor from his or her training location to the venue) is a key part of the organisation of an event like the Olympic Games. The use of Olympic transport has impacts on non-renewable resources (En14 and En15), greenhouse gas emissions (En4) and atmospheric pollutants emissions (En5).

Calculation method and measurement unit

For each part of the Olympic transport system (Athletes and Team Officials, International Federations, IOC, Media, Marketing Partners, spectators, and Workforce) linking the official Olympic and Paralympic sites, the following data are given: number and type of vehicles, number of passengers transported, number of trips, total distance covered (km), average travel-time, total fuel consumed.

The same data needs to be captured for the Paralympic Games in an identical way.

Note: For clients serviced by public transport (spectators, workforce …) the requested data is required for the "enhanced" services i.e. the services provided in addition to the existing public transport.

Measurement procedure

The OCOG can provide the information needed to compile this indicator.

En31 – Olympic Energy Consumption

General Indicator Information

Sphere	Environmental
Type and Frequency	Event, Annual
Geographical Area	City, region
Status	Mandatory

Definition

This indicator measures the energy consumption of the Olympic activities, broken down by source and by sector.

Purpose

Energy consumption is directly related to the size of activities and is a key parameter in estimating environmental impacts, like greenhouse gas emissions and air pollution. It also shows the efficiency of the organization in managing scarce energy resources and non renewable resources.

Calculation method and measurement unit

The final energy consumptions of event and context activities are calculated by sector (see indicator En15) and by fuel (see indicator En14), distinguishing fossil fuels (petroleum, natural gas, coal), nuclear energy and renewable energy (hydroelectric, solar, geothermal, tidal, wind, biomass and waste).
The amount of final energy consumed by each type of sector is measured in gigajoules.

Measurement procedure

Primary data for this indicator should be collected in the life-cycle inventory of the Olympic Games (see indicator En34). The OCOG and governmental agencies can provide the data for this indicator.

En32 – Solid Waste Production of Olympic and Paralympic Games

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. 1 yr prior to, Games Period, 1 yr after
Geographical Area	City and region
Status	Mandatory

Definition

The indicator measures the solid waste production and composition of all Olympic and Paralympic activities directly before, during and after the Olympic and Paralympic Games. The indicator is broken down by type of waste produced and by final disposal of the waste.

Purpose

Waste represents an enormous loss of resources in the form of both materials and energy. Efficient waste recycling reduces the consumption of natural resources and saves energy.

Calculation method and measurement unit

The waste production (in tonnes), composition (in percentage) and final destination (in percentage) is measured for the Olympic and Paralympic activities (without the construction phase of Olympic and Paralympic infrastructure) and for the Olympic region as a whole during the Games Period. The waste for the Olympic and Paralympic activities is divided in four phases:

- Before the Olympic Games: temporary facilities and set-up of the venues
- During the Olympic Games: inside and outside the Olympic venues (park-and-ride, metro stations, street-cleaning, etc.)
- During the Paralympic Games: inside and outside the Paralympic venues (park-and-ride, metro stations, street-cleaning, etc.)
- After the Olympic and Paralympic Games: breakdown and cleaning up of the venues

For each phase the composition of solid waste is given: organic waste, aluminium, metals, glass, plastics, paper and cardboard, wood, other hazardous wastes.

The waste production of the Olympic region during the Games Period is compared with the waste production of the same period a year before the Olympic Games and the same period a year after the Olympic Games.

The final destination of waste is broken down by type of disposal: landfill, incineration (with or without energy recycling), green recycling, dry recycling, mineral recycling, special wastes final disposal, other.

Continued on next page

En32 – Solid Waste Production of Olympic and Paralympic Games, Continued

Measurement procedure

The waste quantities, composition and final destination must be measured during the Olympic Games. This should already be defined in the contracts with the waste treatment companies that will be contracted for the Olympic Games.

En33 – New Waste and Wastewater Treatment Facilities

General Indicator Information

Sphere	Environmental
Type and Frequency	Context and event. Annual.
Geographical Area	City and region
Status	Mandatory

Definition

This indicator makes an inventory of all new waste and wastewater treatment facilities and final disposal facilities that have been built in the period before the Olympic Games and directly after.

Purpose

Host cities very often upgrade, renovate or implement new waste and wastewater treatment facilities to clean up the environment and to showcase new treatment and recycling facilities.

Calculation method and measurement unit

For each new waste or wastewater treatment facility in the region or in city, the following data are given:

- Name of the facility
- Localisation of the project
- New project or already planned project
- Direct relation to Olympic activities or context activities
- Type of treatment
- Date of first planning of the project, start of construction, end of construction/opening
- Average yearly treatment capacity (in tonnes per year for solid waste or in cubic meters per year for wastewater)
- Total investments (local currency and US dollars) and funding sources (national, regional, local authorities or private investment) in percent of total investment.

Measurement procedure

The national or regional authorities are the direct source of information for this indicator.

En34 – Life-cycle Inventory of Olympic and Paralympic Games

General Indicator Information

Sphere	Environmental
Type and Frequency	Event. After Games Period.
Geographical Area	City and region
Status	Mandatory

Definition

The life-cycle inventory of the Olympic activities assesses the inputs and outputs of energy and materials during the different stages of the Olympic Games life-cycle. The following dimensions are examined: amount of material used, grey energy (energy needed in production and construction), total energy, CO_2 equivalent emissions, water consumption, SO_2 and NO_2 equivalent emissions, waste production.

Purpose

This indicator provides an overall, synthetic view of the inputs (energy and raw materials) used for the life-cycle of the Olympic Games and the outputs (water effluents, airborne emissions, solid wastes, other) that are released in the environment. It allows for an efficient and sustainable design of the Olympic Games. The impact of environmental protection measures can be evaluated against this life-cycle inventory and priorities can be set.

Calculation method and measurement unit

The inputs taken in consideration are energy (including grey energy i.e. energy needed in production and construction), divided in renewable and non-renewable energy, raw materials (see also indicator En17) and water.
The outputs include water effluents (volume of water and wastewater), atmospheric pollutants (NOx, SO_2), CO_2, solid waste and other environmental releases.

Measurement procedure

Basic information is provided by other indicators such as En20 Greenhouse gas emissions of Olympic Games, En27 Life-cycle inventory of Olympic venues, En31 Olympic energy consumption, and En32 Solid waste production of Olympic Games.

3.2 → Socio-cultural Indicators

Overview

Introduction This section lists all indicators relevant to the socio-cultural sphere.

So1 – Political Representation

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Initial and final situation. Notified on each change
Geographical Area	City, region and country
Status	Optional

Definition

Political representation of the different parties in the country, region and city at both executive and legislative levels, taking gender and minorities into account.

Purpose

This indicator measures the political forces present and their distribution in executive and legislative bodies. It also gives an insight into the position of women and minorities in political life in the country, region and city.
Over time, changes in the indicator show the results of possible elections and support for or rejection of the people in power and the policies employed by the government.

Calculation method and measurement unit

At executive level: number of posts in the executive by party, by gender and by minorities.
At legislative level: number of seats by party, by gender and minorities and by chamber. The common unit is the seat.
Minorities include ethnic, linguistic, disability and religious criteria.

Measurement procedure

The first stage is an assessment of the situation one year prior to the election of the host city, for the country, region and city.
The final stage is equivalent to the first, which begins an assessment of the situation but conducted two years after the staging of the Games (G+24).
Between these two stages, any change is notified in chronological order, specifying the date of the change.
A full table is presented each time in order to monitor changes in each value.

So2 – Legislative activity

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

Annual count of the number of new laws and the number of amendments (voted or implemented) per policy area: economic, financial, institutional, international, security, social, cultural, sport, environmental, planning, construction, energy, transport, as well as those related to rights or measures concerning people with disabilities, especially in regards to human rights, accessibility and employment.

Purpose

This indicator covers all legislative activity in the city and region broken down into various domains that are likely to be transformed by and in turn to affect the organisation of the Olympic Games and Paralympic Games. An annual assessment will also reveal any acceleration or slowing down in the various sectors.

Calculation method and measurement unit

The laws and amendments voted and implemented are counted each year. Only the annual number per sector is recorded.

Measurement procedure

First stage: Establishment of baseline data for the year preceding the election of the host city for both city and region.
Yearly collection of data for both geographical areas, including the two years following the staging of the Games (G+24). A new table is formed every year.

So3 – Pressure Groups

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context and event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Overview of the main pressure groups in the city and region. A pressure group is taken here to be a political or social movements not forming part of the political apparatus but which takes part in the political arena either directly or by making the political apparatus react, by putting issues on the political agenda, for instance.

Purpose

Government and party activity is not the only activity open to citizens. Social dynamism is often linked to the presence of social groupings that can challenge the elected representatives without being part of them. In this context, pressure groups should be assessed periodically in order to gauge the involvement of civil society in public affairs and the possible emergence of new public issues.

Calculation method and measurement unit

An inventory is made of the main pressure groups that are in support or in opposition to the Olympic Games. Only the most important groups are listed (> 500 members for Olympic Summer Games and > 200 members for the Olympic Winter Games).

Measurement procedure

An annual inventory in both geographical areas, based on parliamentary interventions, issues placed on the political agenda and media releases.

So4 – Community Centres and Associations

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

Community centres and associations are of various types. There are neighbourhood, ethnic, religious, charitable and other types of centres or associations, including association for people with disabilities.

Purpose

Observation of community centres and associations illustrate the social dynamism of the city or region.

Calculation method and measurement unit

Only the number of each type of community centre or association is recorded. It would seem difficult to find out the level of attendance at these bodies, given their often open or informal nature.

Measurement procedure

Local address directories provide access to the various centres or associations and their names help in grouping them according to the various predetermined types.

So5 – Minorities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Initial and final situation
Geographical Area	City and region
Status	Optional

Definition

This indicator describes the different minorities present in the city and region and their socio-economic level (life expectancy, higher education, wage, unemployment, women in the active population, sport and physical activities). Definitions of minorities can vary, depending on the specific context of the host city. The OCOG is free to define the different minorities it wants to monitor. Minorities include (but are not limited to) ethnic minorities, religious minorities, aboriginal people, casts, people with an intellectual or mental disability, people with a disability, etc.

Purpose

Globalization of our society and immigration make our communities more and more multi-cultural and multi-racial with many different types of minorities. Social and economic exclusion (various ways in which people are excluded economically, politically, socially, culturally) should be reduced.

Calculation method and measurement unit

The following indicators are given for the different minorities selected:

- Importance of the minority sub-population expressed in percentage of population
- Political representation (see indicator So1)
- Life expectancy at birth (see indicator So9 Health)
- Percentage of population group with secondary education (see indicator So7 Educational level)
- Gross monthly wage (see indicator So6 Poverty)
- Unemployment rate (see indicator Ec2 Employment indicators)
- Percentage of women in the active population (see indicator Ec2 Employment indicators)
- Sport and physical activities (see indicator So12 Sport and physical activities)

Measurement procedure

The data can be obtained from statistical offices on national, regional or local level. The data can also be collected directly with the other indicators mentioned.

So6 – Poverty and Social Exclusion

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Initial and final situation
Geographical Area	City and region
Status	Mandatory

Definition

This indicator provides a summary of poverty and social exclusion. It includes three dimensions: :

1. Impoverishment (or exclusion from adequate income or resources), measured by the low income proportion of the population
2. Social exclusion (labour market exclusion, service exclusion, exclusion from social relations)
3. Proportion of households that lack three or more necessities because they could not afford them.

Purpose

This indicator measures absolute and overall poverty and social exclusion, taking into account the socially perceived necessities of developed societies.

Calculation method and measurement unit

The low-income portion of the population is defined as the proportion of the active population whose gross monthly wage (standardised to full-time equivalent) is less than or equal to half the median wage of the wage-earning or active (wage-earning plus self-employed) population.

- Labour market exclusion measures the number of adults who have no paid work or live in a jobless household.
- Service exclusion measures the households who have been excluded from essential public and private services (water, gas, electricity or telephone...) because the services are either unaffordable or unavailable.
- Exclusion from common social relations (social isolation) measures the people who are excluded by cost from these relations or lack of time due to caring responsibilities, to paid work and to disability.
- Items defined as necessities are those that more than 50% of the population believes "all adults should be able to afford and which they should not have to do without".
- Each figure is broken down by type of population as defined in So5 (Minorities)

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So6 – Poverty and Social Exclusion, Continued

Measurement procedure

The methodology of this indicator is described in "Poverty and social exclusion in Britain" by David Gordon et al. (2000) - York Publishing Services. A survey and fieldwork are necessary to define the socially perceived necessities.

So7 – Educational level

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. ~~Bia~~Annual
Geographical Area	City and region
Status	Mandatory

Commented [L1]: Assume annual rather than biannual

Definition

This indicator is formed of four rates highlighting the level of education in the city and region. The four rates are:

1. Percentage of population with primary education
2. Percentage of population with secondary education
3. Percentage of population with tertiary education (higher education)
4. Adult (16-65 years) literacy rate.

Purpose

Together the four rates assess the educational situation. Over twelve years, this situation may quite reasonably change, and monitoring this indicator shows the direction taken by the region and the city and the extent of possible changes. This vector also shows up possible gender disparities.

Calculation method and measurement unit

The measurement unit is common to all four rates: a percentage of individuals to the total corresponding population (total population or total adult population). They are broken down by gender and race (other minorities, as defined in So5, have to be included).
Definitions of adult literacy rates are different between countries. Care should be taken to indicate the definitions and references used. If possible, international data definitions should be used. Literacy involves a continuum of reading and writing skills, often extending to basic arithmetic skills (numeric) and life skills. As a reference the UNESCO definition should be used (UNESCO 2000, Education for All 2000 Assessment): Literacy is the ability to read and write, with understanding, a simple statement related to one's daily life.

Measurement procedure

These rates are drawn from local statistics. If these statistics are not available, country-wide statistics can be used, bearing in mind the loss of precision this causes.

Countries collect literacy data in different ways. Some rely on household surveys, others collect the data concerning young people through school surveys, whereas others only collect the data through infrequent population censuses. Because of the different methodologies, the differences in sample coverage and the infrequency of some data collection, one must be cautious in interpreting reported literacy rates.

So8 – Crime Rates

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Monthly
Geographical Area	City and region
Status	Mandatory

Definition

The criminality in the city or region is described by the following data:

1. Number of total recorded crimes against persons (distinguishing between delinquency and serious crime)
2. Number of total recorded crimes against property

Purpose

The ability to live in a safe community is an important element of sustainability and well-being. If people are afraid on the streets or in their own homes, they cannot be comfortable in society. Moreover, crime is an indicator of deeper social and economic issues.

Calculation method and measurement unit

The data is reported in total number of recorded crimes per month and per year. A ratio can be given on the total annual number of recorded crimes per year divided by 1'000 population.

Measurement procedure

The sources for compiling this indicator are the operational police units and the justice and police departments at each political level that exists.

So9 – Health

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator provides a summary of health-related data for the city and the region. These following rates should be indicated:

1. The birth rate
2. Death rate broken down in categories of different causes (heart disease, cancer, stroke, accidents, chronic lower resp. disease, diabetes, influenza & pneumonia, Alzheimer's disease, suicide, homicide, HIV...)
3. Infant mortality rate under five years of age (under-five mortality rate)
4. Morbidity rate (number of ill persons per head of population)
5. Hospitalisation rate per head of population
6. Life expectancy at birth broken down by disability categories (if data exists)
7. Healthy life expectance (HALE)
8. Prevalence of adults (15 years and older) who are obese (percentage)

The data is disaggregated by gender.

Purpose

This indicator provides an overview of the health status of the city's, region's and country's population. For detailed definitions refer to WHO Statistic definitions and metadata (2006). Under-five mortality rate is a leading indicator of the level of child health and overall development in countries. Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly.

Substantial resources are devoted to reducing the incidence, duration and severity of major diseases that cause morbidity but not mortality and to reducing their impact on people's life. This is measured by Healthy life expectancy (HALE). The prevalence of overweight and obesity in adults has been increasing globally. Obese adults (MBI = 30.0) are at increased risk of adverse metabolic outcomes including increased blood pressure, cholesterol, triglycerides, and insulin resistance.

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So9 – Health, Continued

Calculation method and measurement unit

The rates 1, 2, 4 and 5 are given as rates calculated by the total number measured divided by thousand inhabitants.

Under-five mortality rate is the probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period (probability of death derived from a life table and expressed as rate per 1000 live births).

Life expectancy at birth is the average number of years that a newborn is expected to live if current mortality rates continue to apply (see WHO 2006, The World Health Report2006: working together for health). Healthy life expectancy (HALE) is the average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.

Adults (15 years and older) who are obese are measured by the percentage of adults classified as obese (BMI = 30.0 kg/m^2) among total adult population. Two other categories are also given, adult overweight (BMI = 25.0 kg/m^2) and pre-obese (BMI between 25.00 - 29.99 kg/m^2).

Measurement procedure

The sources for compiling this indicator are the national health departments.

So10 – Nutrition

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

This indicator gives an idea of the intake of food and nutrients and the quality of the food supply:

1. The daily per capita calorie supply (calories).
2. The daily per capita protein supply (grams)
3. Consumption of key foods (vegetables, legumes, fruits, cereals, milk and milk products, meat, fish, poultry)
4. Consumption of alcohol intake (average daily alcohol intake among adults)
5. Data on the quality control of drinking water (including the assessment of the analyses performed)
6. Data on the quality control of food quality in restaurants (including the assessment of the analyses performed)

Purpose

A healthy diet, nutritional well-being, and a safe nutritious food supply are essential contributors to a healthy productive population. The result is lower health care and social costs, and a better quality of life. Quality controls of drinking water and food in restaurants are also essential elements of hygiene and nutritional control.

Calculation method and measurement unit

The average number of calories (expressed in calories per capita and per day) and protein (expressed in grams per capita and per day) consumed is calculated from the amount of food consumed in the city or region, multiplied by the mean calorific value of the food consumed, all divided by the population of the city or region.

The consumption of key foods per capita and per day is given in grams.
The consumption of alcohol intake per capita and per day is given in grams of alcohol.

The quality of the drinking water (according to WHO standards) and hygiene in restaurants is given by the ratio of number of samples that don't meet the standards compared to the total number of controls undertaken. The absolute number of controls is also given. The data can be broken down by categories or quality parameters.

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So10 – Nutrition, Continued

Measurement procedure

For the daily per capita calories and proteins supply, the statistical data of the United Nations Development Programme are complete and based on accessible national statistics. The other data are collected from national nutritional data surveys and the authorities responsible for drinking water control and hygienic controls in restaurants.

So11 – Cultural activities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

Cultural activities cover various types of leisure activities such as cinemas, theatres, opera houses, concert halls, museums, galleries and historic buildings. Their global attendance figures are taken into account.

Purpose

Cultural dynamism is an integral part of social life and may play a complementary role to that of sport in bringing people together. Attendance figures are therefore important to show the extent to which these performances, shows and exhibitions bring people together.

For people with disabilities, equitable access to cultural activities is also very important in joining social life.

Calculation method and measurement unit

Only the type of cultural activities and their total attendance figures are recorded. The OCOG can choose the type of cultural activities that they would like to record.

For every type of cultural activity, the figures concerning people with disabilities are presented as a percentage of the total attendance figures.

If the number of cultural venues is also recorded, the percentage of venues that fulfil accessibility criteria should be measured as well.

Measurement procedure

The sources of data are the show and exhibition venues themselves, specific organisations or official statistical agencies. Numbers of tickets issued (sold and given away) are recorded by the management at each venue.
Tickets issued concerning people with disabilities should be recorded separately.

So12 – Sport and Physical Activities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator examines the regional specificity of the sports played and the physical activities. The distinction between club and non-club and the breakdown by gender serve as filters. A club sport is taken to be any sport requiring membership, of a club or federation, for one to have access to it. Of course, the number of clubs in existence should also be taken into consideration.

Purpose

The sports played, the physical activities and especially the extent to which they are practiced can vary considerably from one culture to another and over time. This indicator thus has two objectives: to highlight the sports and physical activities practiced by the people in the city and region, and also to monitor the evolution of this participation over time by recording new sports or physical activities. Variation may also be recorded in the split between club and non-club, between women and men, in the number of clubs to which players belong, as well as between able-bodied and people with disabilities.

Calculation method and measurement unit

The number of participants per sport, per physical activity and by gender.

Clubs may be sub-divided for people with a disability and integrated clubs (for both able-bodied and disabled sportsmen and sportswomen).

Measurement procedure

For federation sports, the central administration can supply exact numbers of registered players, but for non-club sports there is no equivalent. An optional survey of a representative sample of the population (stratified sample) will provide the overall data for this indicator. A comparison between the two sources of data can validate the survey procedure and sampling technique.

So13 – School Sports

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

To give an outline of school sports, the number of hours of sport per week is recorded at primary and secondary levels. This number is supplemented by two others: the official number of hours of sport per week and the number of school hours per week.

Purpose

This indicator shows the official and the actual importance afforded to sport in school. It is based on the premise that sport is an integral part of education.

Calculation method and measurement unit

Only the numbers of hours per week or per year are recorded for both primary and secondary education.

If specific schools for people with disabilities exist, the same figures are applied.

Measurement procedure

For the official figures, the competent authority is the obvious source. For the actual numbers of hours, a survey of schools could prove necessary. These data may be compared with information distributed by parents' associations and educational research institutes.

So14 – Available Sports Facilities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Mandatory

Definition

Available sports facilities are those facilities, either developed or constructed, where any professional or amateur sport can be played, and which cater for clubs or individuals. In addition to the dichotomy between just professional and professional and/or amateur, these facilities are classed by type: stadiums, tennis courts, golf courses, running tracks, cycle racing tracks, motor / motorcycle / kart racetracks, lakes, ski pistes, luge / bobsleigh runs, ski jumps, other open-air venues, gymnasiums, velodromes, swimming pools, skating rinks, and other indoor venues.

Purpose

This indicator shows the sporting capacity and dynamism of the city or region in terms of its facilities. The distinction between the different types of facilities reveals the orientation of the region's sport. Annual monitoring of this indicator will record the outcome of any sports policy aimed at professional sport, sport for all, or both.

Calculation method and measurement unit

The number of facilities of each type is recorded, but each type is split into facilities available only for professional sport and those open to all.

For each type of facility, the number of the facilities (or the percentage among total) fulfilling accessibility criteria – thus considered accessible for people with disabilities – must be indicated.

Measurement procedure

The data required can be collected from directories and local statistics. Federations are additional sources through the location of affiliated clubs.

So15 – Exclusion, Discrimination, Racism and Violence in Sport

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

This indicator monitors the number of reported incidents in the country and region highlighting the problems of exclusion, discrimination, racism and violence in sports.

Purpose

Sport can be a formidable integration factor, particularly for young people. But sport can also become a factor of exclusion and discrimination. There are increasingly more incidents during sport events, with scenes of racism and violence.

Calculation method and measurement unit

The indicator measures the number of reported incidents in newspapers (or police reports) during sport events, showcasing exclusion, discrimination, racism and violence. The incidents are reported annually and by type of sport.

Reported incidents of exclusion and/or discrimination related to sport for athletes with a disability must also be recorded.

Measurement procedure

In some countries, NGOs monitor incidents in sport events. Sport federations also keep track of records of incidents. For major violence incidents, police records can also provide statistics. If there are no statistics available, a monitoring of the newspapers can provide the necessary data. The National Paralympic Committee or other related organizations may provide data concerning athletes with disabilities.

So16 – Top-level Sportsmen and Women

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Sportsmen and women recognised as reaching the top level by national federations are a showcase of talent that includes professionals but does not rule out amateurs. Through the use of gender as a variable, the presence of women at the highest levels can be seen.

Purpose

Champions are put forward as examples by many sports policies and many federations. A count of these champions reveal these potential examples. In addition, monitoring this indicator over time shows up any policies favouring top-level sport in general or more specifically women's sport. The three geographical areas are required in order to assess the relative importance of sport in the region and city compared with the country.

Since Paralympic champions are considered role models and potential examples, the focus on this specific field of sport appears as very relevant too.

Calculation method and measurement unit

Only the number of top-level sportsmen and women per national federation is recorded, split by gender.

On the same basis, the number of top-level sportsmen and women per Paralympic sport is also recorded, split by gender.

Measurement procedure

The sources of information for this indicator are the national federations and the National Paralympic Committee or other disability sport organizations.

So17 – Professional Leagues

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Mandatory

Definition

This indicator is based on the number of professional leagues that exist in the country or at international level (championships that the country's teams would be likely to enter). Two other figures complement this: the number of teams in the region and in the city that take part in these championships.

Purpose

This indicator shows the involvement of local professional teams at national or international level. It is also a way of revealing the degree of professionalism in local sport.

Calculation method and measurement unit

Only the numbers of professional leagues, teams in the region and teams in the city are recorded.

Measurement procedure

The national federations are the sources of information for this indicator.

So18 – World and Continental Championships

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition The number of World and Continental Championships organised, all sports included, from the candidature phase to three years after the Games.

Purpose This indicator reveals the local desire to organise large sporting events. It also reflects the energy, time and money invested in such projects.

Calculation method and measurement unit A list of World and Continental Championships is provided (including Paralympic sports), with their dates, host city, total duration and the number of days of competition, the number of events, the number of athletes, organisers (staff and volunteers) and spectators and the budget of the competition.

Measurement procedure The data are available from the sport federations and the National Paralympic Committee or other disability sport organizations.

So19 – Results at the Olympic and Paralympic Games and World Championships

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Specific time; at every Olympic Games, Paralympic Games, World Championships
Geographical Area	Country
Status	Mandatory

Definition

This indicator takes into account the country's results in the Olympic and Paralympic Games (both winter and summer Games, if participating) and its results in World Championships in Olympic and Paralympic sports held prior to the election of the host city. The results in subsequent Games, World Championships in Olympic and Paralympic sports are also monitored. The number of athletes from the country completes the information for each international competition considered.

Purpose

This indicator shows any evolution made by the country's athletes, in view of the Games' being held in their country.

Calculation method and measurement unit

For each international competition, three figures are recorded: the number of medals (if these are awarded), the national ranking (direct if the competition is a team competition, and according to the number of medals won if the competition involves several different events), and the number of participating athletes from the country.

Measurement procedure

There are three possible sources of data for this indicator: the national federations (and the National Paralympic Committee or other disability sport organizations), the event organising bodies and the specialist press. All three sources can be cross-checked to validate the data.

So20 – National Anti-doping Controls

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	Country
Status	Mandatory

Definition

This indicator describes the anti-doping controls in the country and counts the number of samples collected (urine or blood samples) in and out of competition, the number of A-sample adverse analytical findings, the number of B-samples analyzed and the number of B-sample confirmations, the number and level of sanctions taken per sports federation and Paralympic sports as a whole.

Purpose

This indicator measures the number of anti-doping controls and the sanctions taken against athletes and or anyone having committed an anti-doping rules violation. An annual review of this information will reveal any evolution in the severity of sanctions or the actual number of athletes found guilty. Concerning the controls, the data are broken down into international events and non-international events and by testing body. Monitoring this indicator over time may show up any change in this activity.

Calculation method and measurement unit

The following data are recorded for each body: samples collected (urine or blood samples), the number of A-sample adverse analytical findings, the number of B-samples analyzed and the number of B-sample confirmations, the number and severity of sanctions taken per sports federation. and Paralympic sport as a whole.

Measurement procedure

The national federations, the National Paralympic Committee or other disability sport organizations, the International Paralympic Committee and the authorised bodies (official anti-doping laboratories and WADA) are the official sources for this indicator. The data may be compared with information from the World Anti-Doping Agency and information from the media. The official anti-doping laboratories are the most direct sources for this indicator; the media may be of use in cross-checking these data.

So21 – Media specialising in sport

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Optional

Definition Media specialising in sport comprise newspapers, magazines, radio stations or television channels devoted exclusively to sport, in the city, region or country.

Purpose By highlighting the media specialising in sport, the attention given to sport can be gauged. If a media undertaking can survive exclusively on the subject of sport, it reflects a major interest in sport in society.

Calculation method and measurement unit The number of examples of media of each type and their coverage are recorded.

Measurement procedure Recognised regional and national media are registered with the authorities that issue their licences.

So22 – Sports broadcasting

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Optional

Definition

To calculate sports broadcasting, the number of hours of radio or television broadcasts, live or not, is used. It may also be broken down by sport.

Purpose

The number of hours of sports broadcasting gives an idea of the importance of sport in the various geographical areas considered. A breakdown by sport (including Paralympic sports as a whole) adds relevant information to describe the type of sports culture.

Calculation method and measurement unit

The total number of hours broadcast is broken down among the various sports, (including Paralympic sports as a whole)

Measurement procedure

The data are available directly from the broadcaster.

So23 – Information media

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

Information media are those media that disseminate information as part of their activities: the press, radio stations and television channels. This indicator breaks down the media accessible in the region or country according to origin (regional, national, international), media type, and attachment to a political persuasion or the government in power.

Purpose

The number of examples of information media that are accessible is a criterion showing the diversity of possible sources. The information given by attachment or not to a political persuasion illustrates the freedom of the press. In addition, considering the origin of the media reveals the degree of openness to foreign information.

Calculation method and measurement unit

Press systems: quantitative diversity expressed in number of newspapers expressed in absolute and relative number (number of newspapers per 1 million inhabitants), circulation in absolute and relative (average number of copies per newspaper). Content diversity is based on the editorial policy of the ten most important newspapers of a country, expressed by "neutral"/"independent" or committed to a particular ideology/political party.

Radio stations: number of radio stations on national, regional and local level. Broadcasting stations: number of channels on national level with terrestrial distribution, number of stations for regional and local channels, cable channels and percentage of households connected to cable. A distinction is made between public and commercial stations.

Measurement procedure

Recognised regional and national media are registered with the authorities that issue their licences. Data on international media may be picked up from their distributors or importers. Unrecognised media will have to be located empirically.

So24 – Information and Communications Technology

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

This indicator illustrates the basic access and usage of information and communications technology (ICT) devises:

1. Fixed telephone lines (number per 100 population and percentage of households)
2. Mobile cellular phone subscribers per 100 population (according to gender and age)
3. Computers (number per 100 population and percentage of households)
4. Radio receivers (number per 100 population and percentage of households)
5. Televisions (number per 100 population and percentage of households)
6. Internet subscribers (per 100 population and percentage of households with access to the Internet)
7. Local/native web sites per 1000 population

Purpose

This indicator shows the basic access and usage of information and communications technology (ICT) and the progress made towards an Information Society. The indicator reflects the overall network status and its potential development. It deals with basic telecommunications dissemination, access to the Internet, and the readiness of the population to use ICT tools. Television and radio is included because it also provides, aside from the Internet, another means of disseminating information.

Calculation method and measurement unit

The number of ICT devices in the city or region is given per hundred inhabitants of the city or region and in a ratio of the number of households equipped with the device. The ratio per hundred inhabitants gives an indication of the total number of devices. The percentage of households equipped with an ICT device gives an indication of the social division between people having a private access to ICT devices and people who have not.

Measurement procedure

Data on ICT devises are available from the competent local or national authorities. They are also available on a country level from ITU (International Telecommunication Union).

So25 – Political involvement in the organisation of the Games

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

The connection between the political system and the various Olympic and Paralympic organisations – candidacy committee, organising committee and official supporting committees (if any) – is measured by the number of political figures from government or party employees sitting on these bodies, broken down by party and by gender.

Purpose

This indicator shows the degree of involvement of the political system in the organisation of the Olympic Games and Paralympic Games. An annual review will particularly show the transition between the various committees that succeed each other or coexist and reveal any growth or reduction in this involvement.

Calculation method and measurement unit

The detailed organisation charts of the organisation are collected as the basic data. The number of political figures and their hierarchical level in the various Olympic and Paralympic organisations are recorded, divided into categories by party and gender.

Measurement procedure

An annual survey of the members of the candidacy committee and organising committee will be sufficient to compile this indicator.

So26 – Deferment and Abandonment of Public Policies

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City and region
Status	Optional

Definition

Every public policy has its own timetable, from its appearance on the parliamentary agenda to the implementing measures. Projects may compete with one another, and this indicator reveals any abandonment or delay due to such competition or a reorientation of public policies.

Purpose

The Olympic and Paralympic project may transform local priorities regarding public policies. It seems relevant to note those that are deferred or even abandoned in favour of the Games. Competing development projects may be set aside when attention is focused on issues associated with the Olympic or Paralympic Games. Moves in new directions can also be detected indirectly through a yearly review of this indicator.

Calculation method and measurement unit

Every year, this indicator lists under their official names those public policies which are abandoned or deferred until later. Thus each public policy on the list is marked as abandoned or deferred by x months or years.

Measurement procedure

Parliamentary minutes and archives are the official sources for this indicator. They may be cross-checked with data from the press.

So27 –Votes connected with the Olympic Games and Paralympic Games

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Votes connected with the Olympic and Paralympic Games include parliamentary votes and public votes (if the political system allows them) and covers votes on the candidacy and its financing and on any activities specific to or connected with the Olympic and Paralympic Games, as defined in this report.

Purpose

This indicator shows the position of the political forces present on the various issues connected with the Games. Its annual evolution also reveals changes in the majority, consensus building or consolidation, and the emergence of political conflicts.
Public votes reveal the public support for the Olympic and Paralympic Games project and the level of public mobilisation.

Calculation method and measurement unit

For parliamentary votes, the votes can be broken down by party provided they are not cast in a secret ballot. The numbers of votes for, against and abstentions per party are recorded for each issue voted upon. The issue voted on is indicated by its official title.
For each public vote (consultation, referendum, etc.), the percentage of votes in favour, opposed or blank and the turn-out rate is recorded. The subject of the vote is indicated by its official title and a short description.

Measurement procedure

Parliamentary minutes and archives are the immediate sources for this indicator. The results of public votes are also officially published and listed in the archives of the city, region or country.

So28 – Consultation with Specific Groups

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City and region
Status	Mandatory

Definition

The term 'specific groups' covers any group with particular expectations and characteristics that is defined by a geographical area, by an ethnic origin, or by a particular topic (environment, social or economic) in relation with the Olympic and Paralympic Games. This indicator brings together information connected with the consultation of these groups by the organisations linked to the organisation of the Olympic and Paralympic Games. These specific groups may either support or oppose the Olympic or the Paralympic Games.

Purpose

During the different phases, from the bid phase to the staging of the Games, the public authorities, the candidacy committee and the OCOG are led to make decisions that may transform the social customs of some of these groups. This indicator aims at listing any consultation with these groups by the political system or the OCOG. It shows the frequency and the subjects of such consultation.

Calculation method and measurement unit

The number of specific groups consulted and the number of consultations per group is counted each year, as well as the subjects and the originators of the consultation, whether present or absent.

Measurement procedure

The minutes of meetings (kept by the public authorities or bodies linked to the Olympic project), the specific groups and the press are the three main sources for this indicator.

So29 – Opinion Polls

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Optional

Definition

This indicator overlaps with all the systems in the socio-cultural sphere. It highlights the actors associated closely (city) or more distantly (country) with the Olympic and Paralympic Games. These polls basically look at satisfaction, dissatisfaction and image, as well as the subjective influence of the Olympic and Paralympic Games.

Purpose

This focus on individuals gauges the support that may benefit the Olympic and Paralymic Games and in return the direct impact that the Olympic and Paralympic Games has on the inhabitants of the various geographical areas.

Calculation method and measurement unit

A representative sample of each population is formed every year (a panel is difficult to follow up and keep together over such a long period). A standard questionnaire is drawn up and the data are gathered by telephone annually in order to refine the analysis.

Measurement procedure

The questionnaire has to be drawn up. There are local market research institutes that are familiar with population sampling and have the facilities for conducting interviews by telephone.

So30 – Participation of Minorities in Olympic and Paralympic Games

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Optional

Definition

This indicator describes the participation of minorities in the organisational structures of the OCOG: position in OCOG itself, Olympic and Paralympic activities related jobs and volunteers.

Purpose

Combating social exclusion starts with the OCOG itself. The OCOG should provide positions, jobs and possibilities for minorities to participate as volunteers in the Olympic and Paralympic Games.

Since Paralympic Games are connected directly to a specific minority (people with disabilities), a clear focus needs to be given to this category

Calculation method and measurement unit

Following the definition of minorities given by the host city (see indicator So5 Minorities), the following three figures are given:

- the percentage of jobs inside the OCOG occupied by each category of minority members
- the percentage of jobs created in Olympic activities occupied by each category of minority members (see indicator Ec27)
- the percentage of volunteers coming from different minority groups (see indicator So41)
- In regards to Games-time jobs (e,g. volunteers) data need to be recorded for each Games (Olympic/Paralympic)

Measurement procedure

The first and third figure can be provided by the Department of human resources of the OCOG. The second figure should be integrated in the collecting of data for indicator Ec27).

So31 – Homeless, low-rent Market and Affordable Housing

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event and Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator monitors the situation of the low rent market housing (affordable housing for low-income families, singles, seniors and people with disabilities) and for homeless people.

Purpose

During the Olympic and Paralympic Games, a large number of visitors are expected in the host city and the number of available rooms is often not sufficient. The situation can become critical for low-income families and homeless people. Some landlords may be tempted to make extra cash by removing their tenants and renting homes or condominiums to visitors who might pay more during the Games. Landlords may upgrade their rooms and rent them to higher-income families. However, the Olympic and Paralympic Games, with the construction of the Olympic villages, are also an opportunity to provide additional housing for low-income families, particularly singles, seniors and people with disabilities.

Calculation method and measurement unit

Definitions of low-income families, affordable housing and social housing depend on the national and local context. An international standard doesn't exist. Host cities should provide their own definitions. The following data should be collected:

- Percentage of low-income families in the city, broken down by families, singles, seniors and people with disabilities
- Number and percentage of affordable housing and social housing units in the city
- Number of new affordable housing and social housing units built every year
- Number of affordable housing units built for the Olympic and Paralympic Games (Olympic villages; hotel rooms converted to apartments for sale post-Games; for example)

Continued on next page

So31 – Homeless, low-rent Market and Affordable Housing, Continued

Calculation method and measurement unit (continued)

- Number of households on waiting list for social housing (if such a list exists). If possible, it should also indicate the percentage of households that include a person with a disability.
- Number of homeless people in the city (including percentage of people with disabilities among them if known)
- Number of places in homeless shelters

Measurement procedure

The different notions should be defined more precisely, then data should be collected from social housing departments and others specific agencies (Government and NGOs).

So32 – Olympic and Paralympic Educational Activities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual and Games Period
Geographical Area	City, region and country
Status	Mandatory

Definition

The organisation of the Olympic and Paralympic Games is often accompanied by educational activities in the field of sport and other related fields (for example environmental protection, Olympic history, etc). These activities can take various forms (campaigns in schools, distribution of books and educational materials, organized attendance at the Games etc.) and may reach several different target audiences.

Purpose

This indicator lists the educational activities undertaken in order to verify the catalyst role that the organisation of the Games has in the field of education. Annual monitoring will reveal any growth in the number of activities and especially the growing number of people reached in the population concerned.

OCOGs also implement initiatives to attract schoolchildren to attend the Games (primarily the Paralympic Games), within the curriculum of their school year. Attendance is important for social skills such as disability awareness, positive attitudes to social inclusion, tolerance to diversity etc. This indicator measures the scope of such initiatives.

Calculation method and measurement unit

The list of activities undertaken is accompanied by the number of people reached by these activities, either by taking part or through outreach activities and the geographical area of the activities. This figure can also be replaced by the number of publications distributed. The global budget for these activities and the percentage of the OCOG budget is also provided.

A similar set of figures is provided with special focus on programs concerning the Paralympic Games and / or awareness and attitudes about people with disabilities.

In addition, the number of schools that attended the Games in an organized manner, classified by Games (Olympic/Paralympic), by level (primary, secondary etc.) and origin (city, region, country) plus the number of schoolchildren that attended classified by event, age and the number of accompanying teachers are captured by this indicator.

Continued on next page

So32 – Olympic and Paralympic Educational Activities, Continued

Measurement procedure	The OCOG and public education services are the bodies that have the information required to compile this indicator.

So33 – Olympic and Paralympic Arts Designers and Participants

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country,
Status	Mandatory

Definition

For this indicator, the generic term 'art' is divided into graphic arts, comprising designers and graphic artists; plastic arts, including painters, photographers, engravers and sculptors; musical arts, grouping artists linked to music and dance (composers, performers, choreographers, etc.); and the art of filmmaking, which covers directors and actors.
This indicator counts the number of people involved in the creation of items linked to the main cultural programmes of the Olympic and Paralympic Games: Opening and closing ceremonies, medal ceremonies and the official cultural programme. These items may be logos, posters, mascots, medals, etc..

Purpose

All these people play a part in the originality of the Olympic and Paralympic Games, and so it is of interest to look at the cultural dynamism that evolves during the conception, organisation and staging of the Games.

Calculation method and measurement unit

The number of people and man-years are recorded by type (graphic arts, plastic arts, musical arts, art of filmmaking, architecture), by geographical area (city, region, country, world) and by gender.
The participants of the main cultural programmes of the Olympic and Paralympic Games are also recorded. They include all the performers (musicians, dancers, singers, speakers, etc.), broken down by their origin (city, region, country, world) and gender.
A percentage of people with disabilities among the performers and artists is also given.

Measurement procedure

The candidacy committee and OCOG are the direct sources for gathering the information needed to compile this indicator.

So34 – Cultural Programme

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Every Olympiad is preceded and accompanied by an official cultural programme. This indicator lists the events in this programme and records the attendance (or outreach) figures for each event.

Purpose

This indicator shows the number of events organised per year and their attendance or outreach figures, thus revealing the importance given to the cultural field in the Olympic and Paralympic project. The annual review focuses on the rise or fall in attendance at these official events as well as any increase in the number of events.

Calculation method and measurement unit

The list of events organised per year is supplemented by the number of people who attended each event and the budget for the event

Measurement procedure

The OCOG is the direct source for obtaining this information. It can be cross-checked against media reports.

So35 – Recognition of Olympic and Paralympic Logos and Mascots

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Optional

Definition This indicator measures the logo and mascot recognition rate in the population concerned.

Purpose This recognition rate is useful for gauging the level of awareness of the organisation of the Olympic and Paralympic Games. An annual review will show any progression in this rate.

Calculation method and measurement unit This indicator is the percentage of the population concerned (city, region, country) who recognise the logos and mascots associated with the Games.

Measurement procedure These data are collected on the basis of an annual survey of a representative sample (by gender and age) of the population concerned.

So36 – Reported Complaints about Racism, Discrimination and Violence during the Games

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Specific time: daily during Games Period
Geographical Area	City and region.
Status	Mandatory

Definition This indicator monitors the number of reported incidents during the Olympic and Paralympic Games that demonstrate the problems of exclusion, discrimination, racism and violence in sports.

Purpose The Olympic and Paralympic Games are a celebration of humanity and sport. Incidents are relatively exceptional but should be monitored.

Calculation method and measurement unit The indicator measures the number of reported incidents during the Olympic and Paralympic Games that demonstrate exclusion, discrimination, racism and violence from the pubic and the athletes. The incidents are reported during the Olympic and Paralympic Games and by type of sport.

Measurement procedure The OCOG should implement a monitoring tool to assess the situation and report incidents.

So37 – National Sport Development

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. After the Games Period
Geographical Area	City
Status	Mandatory

Definition

This indicator is compiled from the results of the host country's athletes. It comprises two types of information: medals per event and national records broken.

Purpose

The organisation of the Olympic and Paralympic Games may be accompanied by a policy of support and promotion for certain sports. The results in the Games are an outcome of this. This indicator looks at the results of the country's athletes. The national records broken illustrate progress by the country's top-level athletes.

Calculation method and measurement unit

The medals per event and the national records broken are recorded.

Measurement procedure

The results database, the NOC of the host country and the national federations are all possible sources for this indicator. For Paralympic Games, the NPC is the principal source for data.

So38 – Volunteers

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Specific times: one year before the Games and during Games Period
Geographical Area	City, region and country
Status	Mandatory

Definition

The Olympic and Paralympic Games call for numerous volunteers who are allocated to very specific jobs according to what is required for organising the Olympic and the Paralympic Games. They may have various origins.

Purpose

The number of volunteers shows the support given by the population to the staging of the Games. Their breakdown according to their origin (city, region, country and world) shows the extent of this support and their breakdown by function reveals the needs of the OCOG.
The additional breakdown by people with disabilities and people without disabilities gives an indication of the place given to this specific population by the Olympic and the Paralympic Games Organising Committees.

Calculation method and measurement unit

This indicator records the number of inscriptions of volunteers, the number of volunteers selected, the number of volunteers active during the year before the Olympic and Paralympic Games and the number of volunteers active during the Olympic and Paralympic Games (accredited).
This indicator records the number of volunteers, broken down by: gender, function (within the organisation of the Games), origin (city, region, country, world – exclusive categories) and by people with disabilities and without disabilities.
The number of full-time volunteer jobs by function is also indicated as a measure of the real working effort that is given. The ratio between the number of volunteers and the full-time volunteer jobs can be calculated.

Measurement procedure

The OCOG is the immediate source for compiling this indicator.

So39 – Spectators

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. After the Games Period
Geographical Area	City.
Status	Mandatory

Definition

This indicator counts the number of spectators by two methods: the number of tickets sold and the total number of people (accredited people and spectators) present at the sporting venues, the opening and closing ceremonies, the Torch Relay, the Medal's Plaza (for Winter Games), the principal Live Site (for Summer Games). The numbers are broken down by sport, by event and by venue.
This indicator gives the same set of figures for Paralympic Games.

Purpose

This indicator provides the basic estimation of the number of people who will attend the sport and cultural events of the Olympic and Paralympic Games. These figures are used to describe the physical size of the Games and form the basis of the economic impacts (tourism, transport, etc.).

Calculation method and measurement unit

For each event and / or venue, the number of tickets on sale, the number of tickets sold.
With some events, there are possibilities for spectators to follow the event without a ticket (sailing, marathon, cycling road, triathlon, Olympic torch relay, etc.). An estimation of the number of spectators concerned should also be provided.

Globally, for the whole Olympic Games Period, the average number of tickets sold per person and per geographical area is also recorded.

The same set of figures is given for every Paralympic Games event. If a "Day Ticket" policy applies for the Paralympic Games, actual attendance may exceed tickets sold and is captured by the indicator.

Measurement procedure

The number of tickets sold can be obtained from the official Olympic Games ticket office. Estimation of attendance at non-ticketed events (as indicated above) can be obtained from security forces, venue teams, event services personnel if on-site, catering concessionaires if any, etc.

So40 – Attending Events – Affordable Games

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. After the Games Period
Geographical Area	City and region
Status	Mandatory

Definition

This indicator defines the percentage of tickets to be sold to the general public, the price structure of the tickets, the part of tickets that are affordable and the real number of people attending the Olympic and Paralympic events compared to the total capacity of the venue.

Purpose

Empty stadiums, public frustration about high ticket prices or too few available tickets give a negative image of the host city and the Olympic and Paralympic Games. This indicator illustrates the synergies between some of the factors.

Calculation method and measurement unit

The percentage of tickets sold to the general public in relation to the total capacity of the venue, shows the availability of the tickets to the general public. The results are given per event and per sport for the Olympic Games and per event, per sport and / or per day for the Paralympic Games (depending of the pricing structure).
The price structure of the tickets is given by dividing the prices in five classes. For each price class, the percentage of tickets of this price class to the total number of tickets is given. The data is given for preliminary events and finals.
The ratio between the price of tickets and the average monthly wage (see indicator Ec13) and the GINI income distribution index (see indicator Ec14) is also given for the five price classes and for preliminary events and finals.

Similar classification of ticket prices applies to Paralympic Games tickets; however the classes may be limited to three.

Measurement procedure

The main data are collected from the ticketing statistics.

So41 – Promotion of Minorities and Indigenous Population (People with Disabilities, Youth, Seniors, Equity Seeking Groups)

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Optional

Definition

This indicator describes the actions undertaken by the OCOG, or related organisations, to promote minorities, indigenous populations, people with disabilities, youth, seniors and equity seeking groups during the Olympic and Paralympic Games. The indicator describes the number of action plans, the number of people potentially reached by the action and the costs of the program.

Purpose

The Olympic and Paralympic Games constitute an opportunity to change mentalities, perceptions and the way people think. The OCOG's can contribute to these changes by implementing educational and promotional plans.

Calculation method and measurement unit

The different action plans are described (type of action, duration), the number of people that will be reached by the program and the costs of the program. See also indicator So30 (Participation of minorities in Olympic and Paralympic Games).

Measurement procedure

Public authorities and the OCOG collect the data for this indicator.

So42 – Non-accredited People Working in Context Activities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Games Period
Geographical Area	City, region and country
Status	Optional

Definition

This indicator gives an overview of people working in support functions of the Olympic and Paralympic Games (Olympic activities), but who are not accredited because they don't require access to the Olympic and Paralympic venues. These people work for different authorities (municipalities or regional/national authorities) or for private organisations (support functions of sponsors, security agents, etc.).

Purpose

Many people work directly for the Olympic Games and/or Paralympic Games in support functions, but are not registered in the accreditation system because they don't require access to Olympic and/or Paralympic venues during the Games. This indicator gives a more detailed overview of the number of people in different functions that generally escape Games statistics.

Calculation method and measurement unit

The total number of people (expressed in full-time job-days) is given by function. The number of people can be deduced by subtracting from the total number of people involved in support functions for the Games and the number of accredited people (who have access to the Olympic venues).
Measurement unit is number of full-time job-days.
The number of people for each Games (Olympic/Paralympic) is captured and presented.

Measurement procedure

The OCOG should provide a breakdown of all the support functions of the Olympic Games, area by area, ranging from municipal street cleaning and public transportation to security forces and IT systems. The data is then collected by the OCOG from all their partners (authorities, private organisations, sponsors, etc.). For example, the security forces can be broken down by the agencies involved. Every agency can then provide the total number of people involved that are not accredited, but who will be working in support functions for the Games.

So43 – Host City's Media Image

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context and event. Specific times: Annually until three years prior to the Olympic Games. Quarterly thereafter.
Geographical Area	World
Status	Optional

Definition

This indicator overlaps with all the systems in the socio-cultural sphere. It focuses on the way the world's media treat the city, region, country in relation to Olympic and Paralympic Games matters.

Purpose

The aim of such a broad indicator is to be able to determine the pre-Olympic image of the city, region and country through a quantitative analysis of the media. This image may be connoted economically, environmentally or socio-culturally. In addition, monitoring the indicator throughout all the phases of the Olympic and Paralympic event and until three years after the Games will reveal the influence of the Games on this image.

Calculation method and measurement unit

A representative panel of the world's media (with all continents represented) is selected on the basis of circulation or audience figures (in terms of importance) and with the criterion that they publish information on a website. This latter criterion means that language statistics software can search for keywords such as the names of the city, region and country and gather the subjects and qualifiers most often associated with these names.
In addition, research should include the image of the host city in regards to people with disabilities in the host city, region and country, as perceived by international media.

Measurement procedure

There are bodies that specialise in this type of analysis, which means that one can reap the benefit of their know-how and ready-made panels.

So44 – Perceptions about People with Disabilities in Society

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Optional

Definition

By this indicator, social attributes about people with disabilities such as social inclusion, attitudinal changes and social perceptions are to be measured, based on quantitative and qualitative research.

Purpose

There is a strong indication that attending and/or watching the Paralympic Games has a major positive impact in regards to the image and the position of people with disabilities in society. This indicator will capture this impact.

Calculation method and measurement unit

A representative sample of the population is surveyed every year (a panel is difficult to follow up and keep together over such a long period). The data gathered is based on a standardised questionnaire and analysed using scientifically valid methods.

Measurement procedure

A survey will be conducted based on a standardised questionnaire, which is to be developed by the OCOG, in consultation with the IPC Sports Science Committee.

Agencies specializing in social studies surveys may be contracted for this survey.

So45 – Support Network for Disabled People

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator highlights the support and welfare services for people with disabilities. This indicator is focused on the different categories of people with disabilities i.e. wheelchair users, mobility impaired, visually impaired, hearing impaired, mentally impaired.

Purpose

The indicator is useful for determining the degree of attention given by the local and regional authorities and/or government towards effective support and integration of the disabled people into society. The indicator measures the effort of the city and the region to assist these groups, integrating public and private efforts in order to provide a welfare service system.

Calculation method and measurement unit

This indicator is a vector formed from two rates highlighting the support and welfare services for disabled people within society. The two rates are:

- The rate of people per identified categories who have access to support from the state (monetary and/or in kind)
- The per capita expenses of the country for welfare services, classified by each identified category.

Measurement procedure

The competent local, regional and national authorities should be sources of such information, together with NGOs and organisations working with disabled persons.

So46 – Professional Sport Education for People with Disabilities

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator measures the number of people with qualifications, according to national standards, certified to provide physical education and sports services to disabled people and/or athletes. The indicator also measures the quantity and type of courses available in this field.

Purpose

Lack of awareness, misperceptions and ignorance form the biggest barrier to full social inclusion and self-determination of people with disabilities into society. The sport professionals who have the knowledge and skills to facilitate integration in sport activity and/or competitive sport of people/athletes with disabilities is a major factor affecting the access and integration of people with disabilities into physically activity and sport. Such participation is crucial for physical rehabilitation, sporting success, social inclusion and recognition towards people with disabilities.

The aim of this indicator is to measure the number of qualified people in this field and the evolution of these types of courses.

Calculation method and measurement unit

Two types of information are collected by level (university, vocational training, other training programmes, etc.):

- The various kinds of relevant qualifications are listed and grouped by level. For each level, the graduates per year plus the total number of professionals actually employed in this sporting area are recorded.
- The number and average duration of relevant courses are listed and grouped by level. For each level the attendees per year are recorded plus the total number of professionals (instructors/educators/teachers) of these courses.

Measurement procedure

Many associations and even public schools provide courses and are valuable sources of data for this indicator. The competent educational or employment authorities can also be sources of data, together with the respective professional unions and associations.

So47 – Sustainability of Accessibility Provisions in Olympic and Paralympic Venues

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Event. Initial and Final situation
Geographical Area	Region, City
Status	Mandatory

Definition

The indicator evaluates the extent to which Olympic and Paralympic Games' competition and non-competition venues were made accessible on the occasion of the Games, and the extent to which they remained as such in their post-Games usage.

Purpose

Accessible venues that are available to the widest range of users are important for the Olympic Games and absolutely critical for the Paralympic Games because of the scope of people with disabilities among the Paralympic client groups.

Accessible venues provide lasting opportunities for all people engaging in sport, either as athletes or spectators. Even if the post-Games use of an Olympic venue changes, accessibility remains an important legacy element to consider. The degree to which such legacy occurs is measured by this indicator.

Calculation method and measurement unit

For each Olympic and Paralympic venue, definition of compliance (or not) to a list of basic accessibility criteria is given, broken down by the disability category (wheelchair user, mobility impaired, visually impaired, hearing impaired, mentally impaired).

Measurement procedure

The principal sources for this indicator are the OCOG and the post-Games venue owners or operators.

For the main accessibility criteria refer to Appendix 2 – Criteria for Accessibility.

So48 – Accessibility of Public Services

General Indicator Information

Sphere	Socio-cultural
Type and Frequency	Context. Every year
Geographical Area	City
Status	Mandatory

Definition

This indicator evaluates the accessibility of public buildings which provide essential services to the wider community. It reveals the evolution of the respective provisions in urban planning.

Purpose

Access to public services is an essential part of community integration and an important element of self-sufficiency for people with permanent and / or temporary disabilities or sensory impediments.

The indicator assesses the adaptation of some critical public buildings in the host city in order to provide people with disabilities with an unobstructed, equitable and dignified access to the required services.

Calculation method and measurement unit

The definition of compliance (or not) to a list of basic accessibility criteria is given in absolute numbers and in percentage to the total for each category of the following buildings in the host city: administration offices, post offices, police offices, social services, hospitals, airports.

The data is broken down by the different categories of people with disabilities : wheelchair user, mobility impaired, visually impaired, hearing impaired, mentally impaired

If national standards for “administration offices” and “social services” do not exist, the OCOG is to submit its definition to the IOC.

Measurement procedure

Local organisations for people with disabilities and the respective public organisations of the city are sources of data for this indicator.

3.3 → Economic Indicators

Overview

Introduction This section lists all indicators relevant to the economic sphere.

Ec1 – Employment by Economic Activity

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

This indicator describes the division of the productive system according to the number of persons employed in each economic sector, at both a national level and, if possible, a regional level.

Purpose

This indicator aims to describe the real structure (i.e. estimated in terms of jobs) of the national and possibly the regional economy. It describes the number of jobs in the main sectors of the economy.

Calculation method and measurement unit

The jobs are estimated in terms of full-time equivalents (FTEs). They are broken down into 17 categories following the classification of economic activities defined by the ISIC – ISIC Rev 3 (*International Standard Industrial Classification of All Economic Activities, Revision 3*), or possibly ISIC Rev 2 (*Revision 2*). Just the first-level ISIC distinction is taken into consideration here, splitting all economic activities into 17 specific classes labelled alphabetically from A to Q. The breakdown is shown in both absolute and relative terms.

Measurement procedure

The information required is gathered every year from the competent authorities (generally the national statistics office), on the basis of the United Nations Statistics Division methodology (http://esa.un.org/unsd/cr/registry/regrt.asp). This procedure should follow changes in the ISIC classification (especially in the event of a new revision).

Ec2 – Employment Indicators

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

This indicator groups four rates, highlighting the participation of the population in the economic activity of the host context. The four rates are:

1. The global activity rate: the ratio between the number of active persons and the permanent resident population
2. The percentage of women in the active population
3. The unemployment rate: the ratio between the number of unemployed and the active population; the unemployed include people who are not working but who are looking for a job and are available for work
4. The net migration rate: the ratio of the difference between the number of immigrants and the number of emigrants (migratory balance) over the permanent resident population

Purpose

This indicator reveals the evolution of the socio-economic characteristics of the host region and country mentioned above. A comparison between regional and national data makes it possible to determine the impact which is specific to the Olympic Games.

Calculation method and measurement unit

- Global activity rate: the ratio between the number of active persons and the permanent resident population
- Percentage of women in the active population: ratio between the number of active women and the active population
- Unemployment rate: the ratio between the number of unemployed and the active population; the unemployed include people who are not working but are looking for a job and are available for work
- Net migration rate: the ratio of the difference between the number of immigrants and the number of emigrants (migratory balance) in the area over the permanent resident population.

The measurement unit common to all four rates is the percentage of individuals concerned.

Measurement procedure

The information required is gathered every year from the competent national and regional authorities. Monitoring the indicator shows the evolution of the indicators at both national and regional levels.

Ec3 – Size of Companies

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

This indicator describes the size of companies, divided into four categories: large, medium-sized, small or micro-companies.

Purpose

This indicator gives an idea of the concentration of the productive system. On the basis of the enterprise size, the indicator shows how the economic system evolves.

Calculation method and measurement unit

On the basis of the number of full-time equivalent (FTE) jobs in the area in question, the following enterprise size classes are used:

- 0-9: Micro-companies
- 10-49: Small companies
- 50-249: Medium-sized companies
- 250++: Large companies
-

The number of companies and the corresponding number of FTEs is recorded for each class. The breakdown is shown in both absolute and relative terms.

Measurement procedure

The information required is gathered every year from the competent authorities.

Ec4 – Quality Management of Companies

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

Within the productive system, this indicator shows the percentage of companies that comply with the main international standards on environmental, social and commercial quality management.

Purpose

By measuring how well the productive system complies with the principles of quality management, the indicator reveals how the quality of the productive system evolves, with emphasis on its environmental, social and quality dimensions.

Calculation method and measurement unit

The indicator specifies (in absolute terms and in percentage of the total number of companies) how many companies in the country and the region have been certificated (or registered) with the following international standards:

- Environmental management: certification standards ISO 14000 (International Organization for Standardization)
- Quality management: certification standards ISO 9000 (International Organization for Standardization)
- Social accountability: certification standard SA 8000 (Social Accountability International)

Companies are classified by size, the relevant criterion being the number of full-time equivalent jobs (FTEs). The breakdown is presented in both absolute and relative terms.

Measurement procedure

For the four types of companies (classed by size, see indicator Ec2), the number of companies holding ISO (*International Standard Organization*, http://www.iso.ch/iso/en/ISOOnline.openerpage) and SAI (*Social Accountability International*, http://www.sa-intl.org/) certification is found and compared with the total number of companies.

Ec5 – Motor Vehicle Population

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

This indicator describes the structure and type of the motor vehicle population (age, fuel used, environmental emission norm categories) and the general automobile motorisation rate.

Purpose

This indicator shows the evolution of the motor vehicle population in both quantitative terms (number of vehicles) and qualitative terms (age, type of energy used, environmental emissions standards categories).

Calculation method and measurement unit

The following categories should be considered: private cars, rental cars, taxis, motorcycles & scooters, light goods vehicles and heavy goods vehicles and buses. For each vehicle category, the number, mean age (according to date of first registration) of vehicles, type of energy used and atmospheric pollutants emissions classes are given. Categories are defined by type and engine size. The motorisation rate is given in cars per thousand people for the city, the region and the country.

Measurement procedure

Data on the number and age of vehicles are gathered from the competent authorities. Locally defined categories are used and are adjusted so as not to exceed three classes per category.

Ec6 – Public Transport

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

This indicator describes the public transportation networks, the total fleet and rolling stock and the total transport demand of passengers.

Purpose

This indicator shows the evolution of public transport networks in both offer (length of networks, number of vehicles) and demand (passenger journeys and passenger-kilometres).

Calculation method and measurement unit

The different types of public transportation are divided by mode (train, bus, ferry...) and type (light rail, bus...). For each type of network, the length of the network (in km), the total number of vehicles (and the percentage of vehicles accessible for people with disabilities), the total number of stations (and the percentage of stations accessible for people with disabilities), the number of passenger journeys (million) and the number of passenger kilometres (billion) are given. For bus and coach services, the vehicle stock (and the percentage of vehicles accessible for people with disabilities), the type of fuel, the passenger journeys (in million) and the vehicle-kilometres (billion) are given.

If for the measures mentioned above, data exists for people with disabilities, it should be integrated into the data collection form for this indicator.

Measurement procedure

Data on public transportation are gathered from the competent authorities. For criteria to define accessible transport means, please refer to Appendix 2.

Ec7 – Accommodation Infrastructure

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

The number of hotel and similar establishments and their guest capacity according to national star rating categories.

Purpose

This indicator describes the evolution of the hotel and similar establishments by category according to the number of establishments and their guest capacity estimated by the number of rooms and the number of beds. The average rate per double and single room is also recorded as it will serve as a basis for price control.
Furthermore the evolution of accessible guest accommodation will reveal the impact of hosting the Paralympic Games in creating possibilities for accessible tourism.

Calculation method and measurement unit

The number and guest capacity of the establishments are determined from national and/or regional statistics. The measurement units are:

1) The number of establishments by category (with the percentage of establishments accessible for people with disabilities)
2) The number of rooms or number of beds (with the percentage of rooms or beds accessible for people with disabilities)
3) The average rate

Measurement procedure

For each category of establishment, data on the number of establishments and their guest capacity are obtained from the competent authorities. Local categories are used and are adapted, if possible, so as not to exceed five classes. The data thus obtained may be compared with data from the World Tourism Organisation statistical database (http://www.world-tourism.org/frameset/frame_statistics.html).

For criteria to define accessible tourism accommodation, please refer to Appendix 2.

Ec8 – Accommodation Occupancy Rate

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual and at specific times: weekly during Games Period
Geographical Area	City, region and country
Status	Mandatory

Definition

Occupancy rate of tourist establishments by national categories, by rooms or by beds (see Ec7).

Purpose

This indicator monitors the occupancy rate of establishments in each national category. It shows how well the available structure meets demand before, during and after the Games are held. Frequent data collection during the Games period will facilitate this. A comparison between regional and national data makes it possible to determine the regional impact of the Olympic Games.
Furthermore, data collection regarding accessible rooms will show the peak demand expected during the Paralympic Games and the extent to which this demand was covered; this will form an indication of local capacity for accessible tourism for the future.

Calculation method and measurement unit

For each national category, the ratio between the number of rooms or beds occupied and the number of rooms or beds available (and the same ratio for the number of rooms or beds occupied by people with disabilities and the number of rooms or beds available for them). Average rate: the ratio between the total number of rooms or beds occupied and the total number of rooms or beds available (and the same ratio for the total number of rooms or beds occupied by people with disabilities and the total number of rooms or beds available for them).

Measurement procedure

The room occupation rate is calculated periodically for each category from the data supplied by the establishments to the competent authorities (as per Ec7).

For criteria to define accessible tourism accommodation, please refer to Appendix 2.

Ec9 – Tourist Nights

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual and monthly
Geographical Area	City, region and country
Status	Mandatory

Definition

Number of tourists per year and per month and average stay in the area in question.

Purpose

This indicator highlights the evolution (rise or fall) of the number of tourists in hotels and similar accommodation and their length of stay before, during and after the Games Period.

Calculation method and measurement unit

At least three categories of tourists should be distinguished according to their origins (abroad, other regions of the country, or host region). The breakdown is given in both absolute and relative terms. For each category, the measurement units are:

- The number of tourists per year
- The relative number of tourists in the category over the annual total of tourists (percentage)
- The average length of stay in days

Measurement procedure

Data regarding the number and origin of tourists can be obtained from the competent national and infra-national authorities (and compared with data from the World Tourism Organisation – http://www.world-tourism.org).
The average length of stay should be calculated for each category of tourists. Where it is not available (not specifically measured), the length of stay may be estimated from the ratio between the number of overnight stays (total and/or by category of establishment, (see Ec7) and the number of tourists (total or by category). In this case, the overall average stay is the ratio between the annual number of overnight stays and the total annual number of tourists.

Ec10 – Airport Traffic

General Indicator Information

Sphere	Economic
Type and Frequency	Context and Event. Annual and weekly during Games period.
Geographical Area	City
Status	Mandatory

Definition

Main airport statistics of the airport(s) identified in the Candidature Procedure and Questionnaire, including the total movements of commercial and private aircraft, the total terminal (local) and transit passengers and the air freight transported.

Purpose

This indicator describes the evolution of airport traffic during the periods most affected by the staging of the Games. It gives an indication of the origin and number of people and freight arriving by plane.
This indicator also reveals the evolution of the host city as a travel destination for people with disabilities.

Calculation method and measurement unit

The total number of aircraft movements is indicated for commercial air transport, divided in scheduled airlines, charter airlines and private air transport.
The total number of passengers for commercial air transport are indicated separately for transit (passengers changing their airplane without going out of the airport) and for terminal passengers (passengers going in or going out of the airport) and are given for scheduled airlines and for charter airlines. The final destination for departing passengers is also given by country and by airport. Depending on the phase of the Olympics considered, the number of passengers is given according to one of three different time frames: per year, per month and per week.

All above figures will include passengers who have disabilities, according to the respective recording of the airlines operating in the airport(s).
The total air freight is given in tonnes.

This data should be compared to the number of accredited persons and the number of spectators coming from abroad for the Games period.

Measurement procedure

The data are collected from the airport(s) or the competent authorities (ground service companies). The data collected may be compared with data from the World Tourism Organisation statistical database (http://www.world-tourism.org/frameset/frame_statistics.html).

Ec11 – Foreign Organisation Establishments

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

The number of foreign organisations establishments whether private (companies, subsidiaries, etc.) or public (associations, federations, foundations, international organisations), that establish themselves in the country or region.

Purpose

This indicator captures the attractiveness of the host region and country through the evolution of the establishment of foreign organisations. A comparison between regional and national data reveals the impact of the Olympic Games on attractiveness at these two levels.

Calculation method and measurement unit

Only the number of installations by year is retained. A classification according to the geographical origin of the new companies provides a better vision of the dynamism of the regional and national economic place.

Measurement procedure

The information required is collected every year from the competent national and regional authorities. Monitoring the indicator shows the evolution for both country and region.

Ec12 – Hosting of International Events

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	City and region
Status	Optional

Definition

Annual rate at which international events are hosted in the country or region.

Purpose

This indicator captures the attractiveness of the host region and country through changes in the rate of hosting international events. A comparison between regional and national data reveals the impact of the Olympic and Paralympic Games on the attractiveness at these two levels.

Calculation method and measurement unit

Five types of event are distinguished according to their predominant characteristics:

- sporting (broken down by Games)
- political
- economic
- social
- environmental

For each type of event, the number of international events and the rate of variation over the previous year are measured. The latter is obtained by dividing the difference in the number of events hosted between the measurement year and the preceding year by the number of events hosted in that preceding year.

Measurement procedure

The information required is collected every year from the competent national and regional authorities. Monitoring the indicator shows the evolution of the rate for both country and region.

Ec13 – Wages

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

The mean wage and median wage, according to gender, together with the gender disparity ratio.

Purpose

This indicator shows the evolution of mean and median wage levels of the region and the country. The data provides information on the labour market and labour costs, the structure of wages, the direct pressure on salaries, and reveals pay inequalities between men and women.

Calculation method and measurement unit

The indicators refer to the hourly wage rates received by wage-earners of both sexes who are active in the economic system as a whole, without any distinction between classes of economic activities or any breakdown on the basis of socio-economic criteria such as age or education.

The wages are gross, including all social charges. They are given in the currency of the country at constant prices to allow for comparisons over time. The mean wage is the mean of all wages paid. The median wage is that earned by the 50th percentile of all wage-earners (50% of wage-earners earn a wage less than or equal to the median wage). The ratio between men and women's wages measures the degree of inequality between the genders. A ratio of 1 corresponds to an absence of disparity. This ratio is almost always (if not always) less than 1.

Measurement procedure

The relevant data may be collected from the departments or ministries of employment in most countries. These data are also collected by the International Labour Office (ILO) and the United Nations System of National Accounts (SNA). The evolution of wages should be estimated in real terms – nominal wages divided by the consumer price index.

Ec14 – GINI Income Distribution Index

General Indicator Information

Sphere	Economic
Type and Frequency	Context. As available
Geographical Area	Region and country
Status	Optional

Definition

The discrepancy between the actual income distribution and a hypothetical distribution in which each person or each household (depending on the reference unit selected) has the same income (equivalent income if the household is the unit).

Purpose

This indicator reveals inequalities in the distribution of wealth in the economy in question. In addition to wage income, it includes data on other types of monetary income (capital gains). The evolution of the index shows any trend towards inequality.

Calculation method and measurement unit

This indicator requires details of the income of the whole population. From this the income distribution index can be calculated. It is a numerical index varying between 0 (strictly equal distribution of income among all persons/households) and 1 (a single person holds all the income).

Measurement procedure

The data needed to calculate the GINI index can be gathered from a survey of the population. Given the logistical scale of these surveys, the data are only available when this type of survey is conducted.
The data may also be obtained from the competent tax authorities. In this case, the income of tax-exempt persons/households is not taken into account.

Ec15 – Consumer Price Index

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual and monthly during Games Period
Geographical Area	Region and country
Status	Optional

Definition Evolution of the consumer price index in a given area over a given period.

Purpose The consumer price index allows the mean annual inflation rate of an economy to be calculated. The index transforms amounts at current prices into amounts at constant prices, making it possible to compare amounts relating to different periods.

Calculation method and measurement unit The base index, corresponding to the initial situation, is set at 100. The index is re-calculated every year. It corresponds to the weighted mean of the partial price indexes measured for the various goods and services included in the consumer price index. It measures the change in the price of the standard shopping basket compared with the base index (100). It is an annual index. During the Olympic Games Period, it should ideally be calculated on a monthly basis.

Measurement procedure The relevant data are collected from the competent authorities. The consumer price index corresponding to the initial situation is the reference index for the impact of the Games. In the OGI procedure, it is the index at G-108 (two years prior to the Host City Election) which is thus set at 100. Changes in the consumer price index are then given in relation to this reference index.

Ec16 – Price Indexes

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

Indexes of prices in the building industry, and of water, electricity and housing (rent) prices.

Purpose

This indicator brings together four indexes, showing changes in the price indexes that are most representative of the Games impact. A comparison between regional and national data makes it possible to determine the specific regional impact of the Olympic Games.

Calculation method and measurement unit

For each index, the year prior to the initial situation is the reference year, when the index is fixed at 100. The index measures changes in prices each year, compared with the base index.

Measurement procedure

The relevant data are collected from the competent authorities. The reference year for the indexes is at G-108 (two years prior to the Host City Election). For each index in the vector, the value of the index in the reference year is the basis for evaluation of the index in the impact period. Changes in each price index are given in relation to this reference index.

Ec17 – Hotel Price Index

General Indicator Information

Sphere	Economic
Type and Frequency	Context and event. Monthly
Geographical Area	City and region
Status	Mandatory

Definition

This indicators describes the mean and maximum room rates for all room types – single, double and suite – and broken down by classification of the hotels, from 1 star to 5 stars. The rates include breakfast and taxes.

Purpose

The indicator shows the evolution of the price of visitor accommodation. It highlights the capacity of the city to control the hotel room rate and keep it reasonable during and after the Games period. It also helps to illustrate the attractiveness of the city for national and international tourism.

Calculation method and measurement unit

Each available room is taken into account to calculate the mean and the maximum room rate of the city's hotels. The types of the room are single, double and suite.

The classification of the hotels is from 1 star to 5 stars. The values are given by month to highlight the seasonal effect and include all taxes and breakfast.

Measurement procedure

The information is gathered from the local hotel association, the statistical data of the city's tourist information office or from a survey of the hotels themselves.

Ec18 – Real Estate Market

General Indicator Information

Sphere	Economic
Type and Frequency	Context and event. Annual
Geographical Area	City and region
Status	Mandatory

Definition

The indicator describes the median price of new and average real estate for sale and for rental. It is broken down by the city's urban districts.

Purpose

This indicator follows the impact of urban transformation – renewal, regeneration, urban park creation, transport network upgrades, etc., and the urban district's fluctuating changes on the real estate market.

Calculation method and measurement unit

The median price is given in the local currency and in US$ by square meter of the apartment.

- For sale: only real estate which is available on the market or has changed owner during the year is taken into account
- For rent: All real estate is taken into account

The indicator is broken down by urban districts and by the age of the real estate (new or existing). If the data exists, the variation to these figures for real estate considered as "accessible" is also recorded.

Measurement procedure

In most cities, real estate market data is collected by the town's housing department. If this is not the case, the data should be collected directly from the main real estate agencies of the town.

Ec19 – Economic Balance (Import / Export)

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Country
Status	Optional

Definition The role of imports and exports in the GDP.

Purpose The indicator describes the relative role of import-export activities in the total economy. Its evolution shows whether the period before, during and after the Games coincides with an intensification or reduction in trade with other countries' economies.

Calculation method and measurement unit Imports and exports are given in the currency of the country. The role of imports or exports in the GDP corresponds to the ratio of the total value of imports or exports over the nominal GDP. The two ratios are given as percentages.

Measurement procedure Data on the value of imports and exports are available from most countries at national level and for some at infra-national level. Only the ratios are used to indicate the evolution of the relative openness of the economy to foreign trade.

Ec20 – Dynamics of Service Activities

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Country
Status	Optional

Definition Ratio of the net balance of services to the GDP.

Purpose The net balance of services indicates whether the economy is a net exporter or importer of services. The ratio to the GDP shows the relative significance of this situation compared with the economy as a whole. Its evolution reveals whether the Games period is accompanied by a growth or a reduction in the service exporting ability of the economy being examined. This evolution is both a cause and a consequence of the economic attractiveness of the economy in question.

Calculation method and measurement unit The net balance of services is the difference between the value of services exported and that of services imported, in the country's currency. The indicator corresponds to the ratio of this balance to the GDP in nominal terms. It is given as a percentage.

Measurement procedure Data on the value of service imports and exports are available from most countries at national level and for some at infra-national level.

Ec21 – Investment Risks

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Country
Status	Optional

Definition

Estimate of the risks associated with the investment of foreign capital in the host country, according to international ratings.

Purpose

Investment ratings monitor changes in the attractiveness of the country as a place for investment. The ratings have a subjective dimension, reflecting the subjectivity of any investment risk assessment performed by the agents.

Calculation method and measurement unit

The indicator consists of a vector including four of the most common ratings used in international statistics and by investors:

- Composite International Country Risk Guide (ICRG) risk rating: a general index based on 22 risk components, varying from 0 to 100
- Euromoney country credit-worthiness rating: a general index based on a combination of 9 risk categories, varying from 0 to 100
- Moody's sovereign long-term debt rating (foreign currency): an alphabetic rating, varying from Aaa to C, indicating a country's debt security
- Standard & Poor's sovereign long-term debt rating (foreign currency): an alphabetic rating, varying from AAA to CC, indicating a country's ability to repay its debts

Measurement procedure

For this particular indicator, the ratings updated by the organisations responsible (http://www.prsgroup.com; http://www.euromoney.com; http://www.moodys.com; http://www.ratings.standardpoor.com) should be used. The ratings are updated every month, and the average annual value is the rating used.

Ec22 – Foreign Direct Investment

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Country
Status	Mandatory

Definition

The Foreign Direct Investment (FDI) is a component of a country's national financial account. It monitors the foreign assets in the domestic economy, in its structures, equipments or organizations. Foreign investment into the domestic stock markets is not included.

Purpose

FDI is a lead driver of economic growth and contributes to gross domestic product and balance of payments. Monitoring the evolution of the FDI shows the evolution of economic attractiveness of the country internationally.

Calculation method and measurement unit

According to the Organisation for Economic Cooperation and Development (OECD), the foreign investor must own at least 10% of equity capital of the company. The indicator is the capital investment during a year usually given in million US$.

Measurement procedure

The relevant data may be collected from the ministries of economy, from the national bank or from the national statistical service of most countries. Some international organisations, such as the OECD, also manage a worldwide database documenting the FDI.

Ec23 – Economic Role of the State

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Optional

Definition

The part played by the public authorities in the gross domestic product in terms of spending (ratio of public spending to GDP) and revenue (ratio of tax revenue to GDP).

Purpose

This indicator shows the evolution of the economic role of the state in the country's economy and, when data are available, that of the regional government in the region's economy. It monitors the participation of the public economy in adapting the host context of the Games so that the Games can take place. Secondarily, the indicator quickly determines the budget balance of the public authorities.

Calculation method and measurement unit

The sums are given in the country's currency at constant prices. The ratios are given as percentages of the nominal GDP.

Measurement procedure

The relevant data are available for all countries at national level and for some at regional level. The evolution of each ratio is monitored.

Ec24 – Structure of Public Spending

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Public spending broken down according to a functional classification (11 activity fields).

Purpose

This indicator shows the evolution of public spending on the main services provided by the public administration. By taking local, regional and national data into account, the complementary nature of the fiscal policies specific to these three levels can be included.

Calculation method and measurement unit

Spending is broken down into the following 11 functional classification fields:

1 - Administration
2 - Public security
3 - Education and training
4 - Culture and leisure (excluding sport)
5 - Health
6 - Social affairs
7 - Transport and communications
8 - Environment
9 - Public economy
10 - Finance and taxation
11 - Sport

The amounts are given in the currency of the country and as percentages.

Measurement procedure

Data on public spending are available for all countries at a national level and generally at a regional and local level. For the sake of completeness and simplicity (with a view to avoiding problems of compatibility between different accounting systems), the total annual operating expenditure and total annual capital expenditure are taken into consideration. If necessary, the breakdown of expenditure into fields of activity should adhere to the functional classification proposed, or at least be based on it. Expenditure should be given in real terms (at G-108 two years prior to the Host City Election). The evolution of the ratios can be seen on the basis of the nominal amounts.

Ec25 – Structure of Fiscal Revenue

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	City, region and country
Status	Optional

Definition

Fiscal revenue broken down into three categories:

- direct taxation
- indirect taxation
- other revenue

Purpose

This indicator shows any evolution in the structure of fiscal revenue and the impact of introducing any new taxes. By taking both local, regional and national data into account, the complementary nature of the fiscal policies specific to these three levels can be included.

Calculation method and measurement unit

Revenue is given in the currency of the country at constant prices. The sums corresponding to each type of revenue are given as percentages of the total.

Measurement procedure

Data on fiscal revenue are available for all countries at national level and generally at regional and city level.

Ec26 – Public Debt

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Annual
Geographical Area	Region and country
Status	Mandatory

Definition

Firstly, the gross debt of a public administration per inhabitant of the administrative unit concerned is taken into account, and secondly, the ratio of the gross public debt to the gross domestic product (GDP) is considered.

Purpose

The evolution of the public debt indicates to what extent public administrations independently meet the expenses covered by the hosting of the Games, amongst other things.
This indicator shows the evolution of the public debt in terms of a potential charge for the population and the gross debt/GDP ratio that compares variation in the debt with changes in the overall economy. This indicator is particularly suited to monitoring an active public spending policy financed by borrowing.

Calculation method and measurement unit

The gross debt of a public administration is the sum of short-, medium- and long-term borrowing on which interest has to be paid. It is given in real terms. The population is the permanent resident population of the administrative unit. The first ratio is given in the currency of the country (in real terms) per inhabitant. For the second ratio, the real GDP is given in real terms. The ratio is given as a percentage.

Measurement procedure

Data on the public debt and the population are available for all countries at national level and generally at regional level. It is also possible to indicate the evolution of the per capita gross debt by taking the cumulative gross debt at national and regional levels and dividing it by the number of residents. Data on the public debt and the GDP are available for all countries at national level and generally at regional level.

Ec27 – Jobs created in Olympic and Context Activities

General Indicator Information

Sphere	Economic
Type and Frequency	Context and event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition Number of jobs actually created in order to perform Olympic and context activities within private and public partner companies.

Purpose This indicator distinguishes job creation associated with the Games, including Paralympic Games, from extra work done by workers already under contract.

Calculation method and measurement unit Only new jobs with a legal work contract are taken into consideration. All jobs created are given as annual full-time equivalents (FTEs). The sectors of the economy are split into 17 categories following the classification of economic activities defined by the ISIC (*International Standard Industrial Classification of All Economic Activities*).

Measurement procedure Data on the jobs effectively created should be collected from employers, which will require close collaboration with them. The new jobs should be converted into annual FTEs.

Ec28 – Composition of Committees by Sector

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Optional

Definition

Composition of the Candidacy Committee (from G-108 to G-84) and then the Organising Committee of the Olympic Games (OCOG; from G-84 onwards) according to the economic sector (public or private) in which its members are active. Their previous, concurrent and subsequent activities are described.

Purpose

The indicator illustrates the number and importance of changes in the organisational structure of the Committees. The composition of the members of the Committees describes the participation of the public and private sectors when the Committees are formed, while they are active, and after they have been dissolved. It also assesses the 'springboard' effect of these Committees in their Members' careers.

Calculation method and measurement unit

Each change of organisation structure is documented by new hierarchical structures (graphics). The sector of origin (relating to previous activities) is the sector in which the Committee Members were active six months before the Committee was formed. The destination sector (relating to subsequent activities) is the sector in which the Committee Members are active six months after the Committee has been dissolved. (When Members join or leave a Committee while it is active, the sector of origin at the time of joining or the destination sector at the time of leaving, respectively, is used).
All figures are given relative to the total number of Committee Members.

Measurement procedure

This indicator requires knowledge of the individual careers of the members of the candidacy and organising Committees. Since this indicator confines itself to distinguishing between the public and private sectors, the collection of this data should not pose confidentiality problems.

Ec29 – New Olympic/Paralympic-related Businesses

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

The indicator describes newly created businesses directly related to the Olympic and Paralympic Games. The number of new businesses and the number of jobs created are monitored.

Purpose

The Olympic and Paralympic Games can provide an opportunity for the foundation of small and medium businesses which can develop and find new markets in sports technology, marketing, consulting, etc.

Calculation method and measurement unit

The data can be indirectly obtained by following the statistical information of the sectors directly related to sport and major sport events. The OCOG can also directly follow this sector, as they are the main player in this field and will receive all the offers of new businesses.

The indicator is expressed by the number of new businesses related to the Olympic and Paralympic Games (or new divisions in existing companies) and the number of full-time jobs is recorded annually.

Measurement procedure

During the time-frame of the preparation of the Olympic/Paralympic Games, the OCOG can monitor the situation as it is the main contractor for these new businesses. Even if these businesses don't work directly for the OCOG, they will make offers of their services. National economic/business promotion offices are a complementary source of information. During and after the dissolution of the OCOG, some experts and employees will found their own business and try to develop it in the sector of sport events. This can only be followed through statistical data of the sport business sector. A follow-up should be made to monitor the businesses' market survival.

Ec30 – Size and Quality Management of contracted Companies

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City and region and country
Status	Mandatory

Definition

Size, number and proportion of companies contracted for Olympic / Paralympic activities that comply with the principal international standards on environmental, social and commercial quality management.

Purpose

The indicator reveals the extent to which the OCOG and related organizations (mainly governmental bodies) can favour the choice of contracted companies who adhere to the principles of quality management, through the main dimensions of environmental management, quality management and social accountability.

Calculation method and measurement unit

Partner companies are those that are contracted to perform Olympic / Paralympic activities or context activities, as defined in this report. The companies are assessed according to whether or not they have been certificated (or registered) with the following international standards:

- Environnemental management: certification standards ISO 14000
- Quality management: certification standards ISO 9000
- Social accountability: certification standard SA 8000 (Social Accountability International)

Companies are classed by size, the relevant criterion being the number of full-time equivalent jobs (FTEs). The breakdown is presented in both absolute and relative terms for Olympic activities and for context activities.

Measurement procedure

For the four types of companies (classed by size, see indicator Ec3), the number of companies holding ISO (*International Standard Organization*, http://www.iso.ch/iso/en/ISOOnline.openerpage) and SAI (*Social Accountability International*, http://www.sa-intl.org/) certification is found and compared with the total number of companies (column 1). National certifications may be mentioned.

Ec31 – Olympic Family Vehicles

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Games Period
Geographical Area	City and region
Status	Optional

Definition

Importance of the Olympic Family vehicles fleet, with the number of accreditations with entitlement to a vehicle for the accredited persons, according to their IOC codes (refer to the Technical Manual on Transport), the total fleet of Olympic Family vehicles and breakdown in type of vehicles and total vehicle-kilometre.

Purpose

This indicator shows the roles accorded to private and public transport for carrying officially accredited persons.

Calculation method and measurement unit

The number of accreditations with entitlement to the various modes of transport is described in absolute and relative terms.
The number and type of Olympic/ Paralympic Family vehicles with atmospheric pollutant emissions categories. Number and type of accessible vehicles per Games (Olympic/Paralympic) is also recorded.
The use of these vehicles with the number of drivers, the total vehicle-kilometres and passenger-kilometres.

The same set of data is produced for the Paralympic Games.

Measurement procedure

The relevant information is obtained from the OCOG.

Ec32 – Breakdown of Visitor Spending

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Specific time: Weekly during Games Period
Geographical Area	City, region and country
Status	Optional

Definition

Visitor spending broken down by the main types of expense: accommodation, food and drink, purchases, other (transport, museums, leisure, etc.), and the geographical area of spending.

Purpose

This indicator estimates the spending of tourists who come specifically for the Games (the visitors), and their main spending categories. Through comparisons of this information with data for other years (and taking many other factors into account), the amount of extra money injected into the local economy by visitors to the Olympic and Paralympic Games can be estimated.

Calculation method and measurement unit

Spending is reported in the currency of the country and in USD at constant prices. The amounts are given in both absolute and relative terms.
During the proposed survey, additional questions on tourism should be asked, such as the number of overstay nights, their intention to return to the host city, their intention to visit other regions of the country, etc.

Measurement procedure

The base-line information can be obtained from the national and regional tourist offices. The data generally come from periodical or one-off surveys of tourists. During the staging of the Olympic and Paralympic Games (Games Period), a detailed survey of visitors should be made.
The data can be used to calculate an overall daily spend (including sub-items of accommodation, purchases, other), which can then be multiplied by the number of overnight stays (see also Ec12). For a more realistic view, a spend specific to each of the different hotel categories can be determined.

Ec33 – Structure of OCOG Revenues

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition

Total OCOG revenue broken down by source and geographical origin (according to the forward and actual budgets).

Purpose

This indicator shows the principal financial sources for the Games. A comparison between the forward and actual budgets reveals how accurate the projection was.

Calculation method and measurement unit

Revenue is broken down according to the I.O.C. 2014 Candidature Procedure and Questionnaire, Question 6.6 and budget template 6.6.1 under the following source headings:

1. IOC Contribution
2. TOP sponsorship
3.1 Local (national) sponsorship
3.2 Official suppliers

4. Ticket sales
5. Licensing (licensing merchandise, coin programme, philately)
6. Lotteries
7. Donations
8. Disposal of assets
9. Subsidies (national, regional and local government)
10. Other revenues
11. Shortfall
12. **TOTAL**

Revenues which are specific to the Paralympic Games are presented under the corresponding headings as listed above.

Continued on next page

Ec33 – Structure of OCOG Revenues, Continued

Calculation method and measurement unit (continued)

The Games budget categories are described in detail in the I.O.C. 2014 Candidature Procedure and Questionnaire.
A gross budgeting approach should be followed, i.e. always include the gross revenue figure and the corresponding cost and not simply the net revenue figure. For revenues, it should be clearly specified what percentage of the revenue is cash and what percentage is Value-in-Kind (VIK). The budget must be able to demonstrate that the VIK categories are also reflected in the expenditure budget in comparable amounts to the projected VIK revenue.
The amounts are given in the currency of the country and in USD at constant prices and as percentages. The USD/local currency exchange rate used should be indicated and the corresponding date.

Measurement procedure

The relevant data are gathered from the Candidature Committee and the OCOG. The forward, revised and actual budgets should be identified. To facilitate international comparisons, the sums may be given in terms of PPP (purchasing power parity).

Ec34 – Structure of OCOG Expenditure

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition Total OCOG expenditure broken down by programme

Purpose This indicator shows the principal financial expenditure of the Games. A comparison between the forward and actual budgets reveals how accurate the projection was.

Calculation method and measurement unit Total OCOG expenditure is broken down according to the IOC 2014 Candidature Procedure and Questionnaire, Question 6.6 and budget template 6.6.1 under the following categories:

B1 Capital Investments
13. Capital investments (sports facilities, Olympic village and other villages, MPC & IBC, other - specify)

B2 Operations
14.1 Sports venues
14.2 Olympic Village & other villages
14.3 MPC
14.4 IBC
15. Workforce
16.1 Information systems
16.2 Telecommunications & other technologies
16.3 Internet
17. Ceremonies and culture
18. Medical services
19. Catering
20. Transport
21. Security
22. Paralympic Games
23. Advertising & promotion
24. Administration
25. Pre-Olympic events & coordination
26. Other
27. SURPLUS

Continued on next page

Ec34 – Structure of OCOG Expenditure, Continued

Calculation method and measurement unit (continued)

Expenditure for the Paralympic Games should be presented according to the above breakdown.

The Games budget categories are described in detail in the I.O.C. 2014 Candidature Procedure and Questionnaire.
Operating expenditure and capital expenditure undertaken by the OCOG are included.

Capital investments of OCOG include land acquisition costs, construction, installation and equipment costs of a permanent nature for Olympic venues or costs of upgrading. It comprises all capital investments which will to a large degree remain in their actual state after the Olympic Games.

Temporary facilities, where long-term use after the Olympic Games is not anticipated, will be included in the Games Operations costs.

Sub-totals should be made for capital investments (see no 13) on (1) new permanent Olympic venues and (2) renovation/upgrading of existing Olympic venues. Another sub-total should be made for (3) temporary facilities included in the operational budget under no 14 (Competition venues, Olympic village & other villages, MPC and IBC). Another sub-total should be made for (4) land acquisition costs for new facilities. These sub-totals will be used in indicator Ec41.

Consultant companies and contractors providing an end-to-end service in a specific functional domain should not be budgeted in "Workforce" but under the appropriate functional item.

The amounts are given in the currency of the country and in USD at constant prices and as percentages. The USD/local currency exchange rate used should be indicated and the corresponding date.

Measurement procedure

The relevant data are gathered from the Candidature Committee and the OCOG. The forward, revised and actual budgets should be identified. Expenses may be entered according to a payment schedule. In the OGI methodology, capital expenditure connected with the Games which is not included in the OCOG budget is part of the capital expenditure on context activities. To facilitate international comparisons, the sums may be given in terms of PPP (purchasing power parity).

Ec35 – Total Operating Expenditure (Olympic Activities)

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Total Olympic operating expenditure including OCOG operational expenditure, but without OCOG capital expenditure (see Ec41) and non-OCOG operational expenditure, broken down by the nature of the costs and the area where the money is spent.

Purpose

This indicator determines which regions benefit from the operating expenditure on Olympic activities. In order to verify the differential impact of the expenditure on the economy in question, the expenditure is broken down according to the nature of the costs it represents.

Calculation method and measurement unit

For OCOG operational expenditure, see Ec41.
Non-OCOG operating budgets include the financing of support operations provided by different levels of government and others to the Olympic Games (e.g., transport, security, health services). Olympic operating expenditure should show the nature of the costs and the geographical areas where the money is spent. The costs are broken down by type: wages and social charges, purchasing of goods and services, taxes and duties, and general expenses. The area where the money is spent may be local (city), regional, national or extra-national (abroad). The amounts are given in the currency of the country and in USD at constant prices, and in relative terms.

Measurement procedure

To obtain relevant information, it is necessary to identify the actors who bear the Olympic operating expenditure and ensure that they distinguish this expenditure according to the nature of the costs involved and the geographical area where the money is spent.

Ec36 – Total Capital Expenditure (Olympic Activities)

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Total capital expenditure of Olympic activities, broken down by the nature of the costs and the area where the money is spent.

Purpose

This indicator determines which regions benefit from the capital expenditure on Olympic activities. In order to verify the differential impact of the expenditure on the economy in question, the expenditure is broken down according to the nature of the costs it represents.

Calculation method and measurement unit

For capital expenditure, a detailed list of Olympic areas and facilities specific to the Games (sports areas, Olympic village(s), village(s), media centre(s), administrative premises, reception, health care and catering services) is given with their respective total investments costs, broken down in land acquisition costs and construction costs. Indicate also which of these investments are planned specifically for the Olympic Games, and which are planned irrespective of the awarding of the Games. See also Specific Glossary of Olympic activities.
All budget lines relating to Olympic capital expenditure should distinguish the nature of the costs and the geographical areas where the money is spent. The costs are broken down by type: wages and social charges, purchasing of goods and services, taxes and duties, and general expenses. The area where the money is spent may be local (city), regional, national or extra-national (abroad). The amounts are given in the currency of the country and in USD at constant prices, and in relative terms.

Measurement procedure

To obtain relevant information, it is necessary to identify the actors who bear the Olympic capital expenditure and ensure that they distinguish this expenditure according to the nature of the costs involved and the geographical area where the money is spent.

Ec37 – Total Capital Expenditure (context activities)

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

The total capital expenditure for context activities is broken down by the nature of the costs and the area where the money is spent.

Purpose

This indicator determines which regions benefit from the capital expenditure on context activities. In order to verify the differential impact of the expenditure on the economy in question, the expenditure is broken down according to the nature of the costs it represents.

Calculation method and measurement unit

For capital expenditure, a detailed list of Olympic induced infrastructure projects (services networks and services centres) is given with their respective total investments costs, broken down in land acquisition costs and construction costs. Investments which are planned specifically for the Olympic Games, and investments which are planned irrespective of the awarding of the Games are also indicated. See also Specific Glossary of Context activities. All budget lines relating to context capital expenditure should distinguish the nature of the costs and the geographical areas where the money is spent. The costs are broken down by type: wages and social charges, purchasing of goods and services, taxes and duties, and general expenses. The area where the money is spent may be local (city), regional, national or extra-national (abroad). The amounts are given in the currency of the country and in USD at constant prices, and in relative terms.

Measurement procedure

To obtain relevant information, it is necessary to identify the actors who bear the context capital expenditure and ensure that they distinguish this expenditure according to the nature of the costs involved and the geographical area where the money is spent.

Ec38 – Total Wages Paid (Olympic Activities)

Global Indicator Data

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Wages paid when Olympic activities are performed, broken down by activity sector and place of residence of the wage-earners.

Purpose

This indicator determines the directly induced earnings by the expenditure associated with Olympic activities. These earnings will generate expenditure, which in turn will generate earnings, and so on. This induces a multiplier effect in the economic system concerned. The breakdown by the wage-earners' place of residence shows which economy (local, regional, national, foreign) benefits from the multiplier effect, and the size of the outward flow from these economies (the 'losses'). This indicator compares the wages actually paid at the time of the expenditure with the induced earnings projected by the methods for predicting the Games' economic impact.

Calculation method and measurement unit

Wages are classed according to the activity sector of the enterprise paying the wages, according to the ISIC (*International Standard Industrial Classification of All Economic Activities*). The determining activity is that specified in the Olympic contract. The wage-earners' place of residence is their official residence. The amounts are given in the currency of the country and in USD at constant prices. Earnings are broken down in both absolute and relative terms.

Measurement procedure

The relevant data are gathered from the public and private companies contracted at the time Olympic activities are performed. These companies should report their employees' place of residence and the amounts paid in wages. This indicator may pose problems of confidentiality.

Ec39 – Catalyst Effects of the Games

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	City, region and country
Status	Mandatory

Definition

Ratio of total capital expenditure on context activities to the total capital expenditure on Olympic activities, as defined in the OGI methodology.

Purpose

This ratio reveals the vitalising effects that the, organisation and staging of the Games may have on the local economy. While the Games require the host context to adapt in terms of infrastructure and logistics, they also provide an unprecedented opportunity for local and regional development. The higher the ratio, the greater the catalyst effect of the Games. For methodological reasons, however, it can not distinguish between activities resulting from local drive and determination from Olympic-driven activities.

Calculation method and measurement unit

The definitions of Olympic activities and context activities are given in the Glossary. The ratio of total capital expenditure on context activities to total capital expenditure on Olympic activities = Ec37/Ec36.

Measurement procedure

The catalyst effect can only be measured at the end of the Games Period. Ratios can, however, be calculated on an annual basis. The relevant data should be gathered from the OCOG and the competent authorities. This ratio doesn't require new information and is derived from existing indicators.

Ec40 – Ratios specific to Olympic Activities

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition

Five ratios connected with Olympic activities:

1. Ratio of operating expenditure to the sum of operating and capital expenditure;
2. Ratio of capital expenditure on renovation to total capital expenditure on construction and renovation;
3. Ratio of expenditure on the construction of temporary facilities to total capital expenditure on the construction of permanent and temporary facilities;
4. Ratio of capital expenditure on renovation of existing facilities to the "past" construction cost of the existing facilities;
5. Ratio of the land acquisition costs to the total capital expenditure of the new permanent facilities.

Purpose

These ratios show essential aspects of Olympic activities, particularly regarding the building of Olympic venues. Ratio (1) indicates the total expenditure connected with the successful running of the Games compared with the investment made. Ratio (2) compares the effort to renovate existing facilities and the desire to provide new facilities. Ratio (3) shows the importance of temporary structures in the total building programme.

Calculation method and measurement unit

Ratio (1) concerns the total expenditure (capital and operating costs) associated with Olympic activities = Ec35 / (Ec35 + Ec36). Ratio (2) concerns the capital expenditure (Ec36) which must be broken down between renovation and new constructions and ratio (3) concerns the capital expenditure (Ec36) broken down between permanent and temporary facilities. All three ratios should include the dismantling costs associated with pulling down or reassigning buildings and developed areas.

Measurement procedure

All ratios are derived from Ec35 Total Operating Expenditure (Olympic Activities) and Ec36 Total Capital Expenditure (Olympic Activities). Some of these ratios require a breakdown of the indicators in the different categories (temporary and permanent facilities, renovation and "past construction costs") of existing facilities, land acquisition and construction costs.

Ec41 – Public Share of Expenditure (Olympic Activities)

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition

The public share of operating and capital expenditure spent on Olympic activities, according to the level of the public authority (national, regional, local and/or city).

Purpose

This indicator determines the public authorities' participation in carrying out Olympic activities. Distinguishing the levels of the public authorities, where relevant, provides a better representation of public financial flows.

Calculation method and measurement unit

For capital expenditure, a detailed list of Olympic facilities specific to the Games (sports areas, Olympic village(s), village(s), media centre(s) is given and the capital costs are added. For the operating expenditure, the costs of all Olympic services provided by the public authorities are estimated, (administrative premises, reception, health care, security, customs, and catering services, etc.) The costs are broken down by source (national, regional, local and/or city). See also Specific Glossary of Olympic activities.
Expenditure is reported in absolute terms (in the currency of the country and in USD at constant prices). To measure the proportion of public expenditure in Olympic expenditure, these amounts are compared with total (public and private) expenditure. The share at the various levels is given relative to this total expenditure.

Measurement procedure

The relevant data are collected from the authorities concerned. All budget lines affected by the Olympic activities should be taken into consideration.

Ec42 – Public Share of Expenditure (Context Activities)

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition

The public share of operating and capital expenditure spent on context activities, according to the level of the public authority.

Purpose

This indicator monitors the participation of the public economy in adapting and developing the context in which the Games will take place. Distinguishing the levels of the public authorities, where relevant, provides a better representation of public financial flows.

Calculation method and measurement unit

For capital expenditure, a detailed list of Olympic induced infrastructure projects (services networks and services centres) and financed by public money is given with their respective total investments costs and their public part (national, regional, local and/or city). See also Specific Glossary of Context activities. Expenditure is reported in absolute terms (in the currency of the country and in USD at constant prices). To measure the proportion of public expenditure in context expenditure, these amounts are compared with total (public and private) expenditure (see Ec36 and Ec37). The share at the various levels is given relative to this total expenditure.

Measurement procedure

The relevant data are collected from the authorities concerned. All budget lines affected by the context activities should be taken into consideration.

Ec43 – Tax Revenue from Olympic Activities

General Indicator Information

Sphere	Economic
Type and Frequency	Event. Annual
Geographical Area	Not applicable
Status	Mandatory

Definition

Breakdown of direct and indirect taxes levied by the public authorities on the economic activities generated by Olympic activities, according to the level at which they are levied.

Purpose

This indicator monitors the evolution of tax revenue associated with the increase in economic activity due to Olympic activities.

Calculation method and measurement unit

The direct and indirect tax levied on the expenditure and income generated by Olympic activities is calculated. The tax and duty included in the operating and capital expenditure associated with Olympic expenditure, the tax levied on visitor spending (see Ec39), and the tax levied on directly induced earnings (see Ec38) is included. The amounts are given in absolute terms (in the currency of the country and in USD at constant prices) and in relative terms.

Measurement procedure

Given that it is impossible in accounting terms to isolate specific data on the tax revenue specific to Olympic activities, this revenue has to be determined by means of an estimate of the amount of trade in goods and services on which direct taxes are levied, and the variation in the tax base on which indirect taxes are determined. Collaboration with a tax official is required for this type of estimate.

Ec44 – Employability of People with Disabilities

General Indicator Information

Sphere	Economic
Type and Frequency	Context. Every year.
Geographical Area	Country, region and city.
Status	Mandatory

Definition

This indicator focuses on people with disabilities as a specific population, considering their position and activity inside the labour market compared to the general population.

Purpose

Equitable access to employment is fundamental in self-esteem and independent living for all human beings. People with disabilities have traditionally faced exclusion from active employment. This indicator follows the evolution of employment availability for people with disabilities inside the labour market.

Calculation method and measurement unit

Five figures are given:

- The ratio: active people with disabilities on active population
- The ratio active people with disabilities on people with disabilities population
- The ratio between the number of unemployed people with disabilities to the number of those of them working; (unemployed include people who are not working but are in the age range of the active population)
- Mean of wages for people with disabilities
- Median of wages for people with disabilities

Measurement procedure

Associations for people with disabilities and employment services are reliable sources for this indicator.

Appendices

List of Appendices

Presentation	This section lists all appendices:
Appendix 1 – International Websites	As described in section 2.3, the attached appendix 1 is a list of important international organisations (governmental and non governmental) with their homepage address. These organisations' websites could be used to find international data or specific data and publications for completing the data collection sheets.
Appendix 2 – IPC Accessibility Criteria	This appendix outlines accessibility criteria that are referred to within this Manual and provided by the IPC.

Appendix 1: International Data Sources

Organisation	Web-address
Amnesty International	http://www.amnesty.org
Central Intelligence Agency (CIA)	https://www.cia.gov
Food and Agriculture Organization of the United Nations (FAO)	http://www.fao.org
Greenpeace	http://www.greenpeace.org
International Labour Organization (ILO)	http://www.ilo.org
International Monetary Fund (IMF)	http://www.imf.org
Organization for Economic Co-operation and Development (OECD)	http://www.oecd.org
United Nations (UN)	http://www.un.org
United Nations Development Programme (UNDP)	http://www.undp.org
United Nations Educational Scientific and Cultural Organization (UNESCO)	http://portal.unesco.org
United Nations System of National Account (UNSA)	http://unstats.un.org
World Bank	http://www.worldbank.org
World Health Organization (WHO)	http://www.who.int
World Tourism Organization	http://www.world-tourism.org
World Trade Organization (WTO)	http://www.wto.org
World Wildlife Found (WWF)	http://www.wwf.org
International Federation of Adapted Physical Activity (IFAPA)	http://www.ifapa.biz/
International Council of Sport Science and Physical Education (ICSSPE)	http://ww.icsspe.org
Rehabilitation International	http://ww.rehab-international.org
European Disability Forum	http://www.edf-feph.org
Handicap International	http://www.handicap-international.org

Appendix 2: IPC Accessibility Criteria

Accessibility

Accessible and Inclusive Environment

Access is a basic human right and a fundamental pillar of social justice. Social justice is about the acceptance of people as individuals and about access to fair and equal opportunity to participate fully in social life.

A truly accessible environment is one where all people (including people with a disability) can freely express their independence, and where any impediment to integration is removed.

Technical Manual on Accessibility

It is not the intention of this appendix to provide a full list of accessibility specifications, but to highlight key elements of accessibility in various settings.

Should readers wish to have a full picture on accessibility, detailed information is contained within the IPC Technical Manual on Accessibility.

Fundamental Principles of Accessibility and Inclusion

Equity, Dignity, Functionality

For any facility or service to be considered as accessible and inclusive three fundamental principles need to apply:

- Ensure disabled people receive the same experience or level of service as their non-disabled counterparts
- Make sure the way in which a service is operated or provided, maintains the status and respect of the disabled person using it
- Guarantee that the service or facility is 'fit for purpose' meeting the specific needs of all client groups including disabled people

Beneficiaries of an Accessible and Inclusive Environment

Presentation

Traditionally accessibility has been viewed as related only to people with a visible physical disability. However, research has shown that the actual percentage of people who require accessible infrastructures and services exceeds 20% of the population.

The disabled population is made up of people with a wide range of impairments, all of whom are beneficiaries of an accessible and inclusive environment

The main categories of beneficiaries of an accessible and inclusive environment are presented below.

Wheelchair Users

This group is relatively small with approximately only 6% of the disabled population using a wheelchair and many of those only occasionally. However, conventional design that doesn't embrace people with mobility impairments can have the greatest negative impact on this group. Well thought out design providing accessible pathways that eliminate steps and provide flush transitions along level routes are essential if this group is to enjoy a high quality Games experience.

People who have a Mobility Impairment

This group is made up of those often referred to as ambulant disabled people, for example, those who can walk but require walking aids or those whose impairment makes this difficult. This group benefits from design which cuts down traveling distances or the need to stand for long periods.

People who have a Vision Impairment

This group includes people who are blind (i.e. cannot see anything at all) and they benefit from Braille information and tactile surfaces etc. However, the majority of visually impaired people have some vision and benefit from color contrasts, large print and non reflective surfaces.

People who are hard of hearing

This group includes people who are deaf (i.e. cannot hear anything and often use sign language) that benefit from services such as interpreters, and TTY / TDD* telephone services. However, the majority in this group are hearing impaired people who have some hearing and therefore benefit from assistive hearing devices such as induction loop systems and passive infra-red systems.

* The term TTY signifies devices known as "teleprinters", whilst TDD, a more recent term, signifies "Telecommunications Device for the Deaf". Many people use the two terms interchangeably, while others use TTY to signify mechanical teleprinters and TDD to signify modern electronic devices which perform the same function in a fraction of the size and weight telephone service.

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Beneficiaries of an Accessible and Inclusive Environment, Continued

People who have an Intellectual Impairment

This group of people has a significant sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period. These people benefit from services provided in a flexible way, documents written in plain language and logical internal layouts at venues.

People who have a Psychological Impairment

The term Psychological Impairment is used for people who due to a medal disorder present either subjective distress or significant impairment of adaptive functioning This group also benefits from a flexible approach to service provision.

Other beneficiaries

In addition to people with disabilities many other people derive huge benefits from an accessible and inclusive environment and flexible services including:

- People with a temporary injury (sprained ankle, fractures)
- Pregnant women and / or parents with infants
- Parents with strollers / buggies
- Children
- Older adults and seniors
- People of different languages

Accessible Transport

Definition of accessible transport

Accessible transport allows all people who require transport to be able to use it with equity, functionality and independence.

Modes of accessible transport

Accessible transport encompasses all modes of transport within the city and surrounding area such as:

- Road transportation (buses, taxis, limousines)
- Rail transportation (light rail, trams, trains, train stations)
- Air transportation (airports, domestic and International airlines)
- Maritime transportation (ports, ferries, water taxis, cruise-liners)

Accessible transport must encompass state owned and private transport providers to ensure complete coverage.

Types of Accessible Transport

The following highlights the different types of accessible transport and the modification required to make them accessible.

Cars & taxis

Accessible cars:

- Have side or rear access to allow a wheelchair user to remain in their mobility aid while being transported
- Have a front passenger seat which swings out towards the user to ease entering the vehicle

Buses & coaches

Accessible buses:

- Have a low floor chassis and lowering mechanism that allows them to link with a pedestrian kerb without steps having to be negotiated
- Have a wheelchair platform lift that takes the person from the pathway up into the coach or bus

Trains

Accessible transportation of standard route trains:

- Provide an appropriate door width to allow wheelchair entry
- Provide accessible access to wheelchair spaces with adjacent spaces for companion seating
- Provide accessible access to food and beverage facilities
- Accessible toilet facilities (applicable for other regional and long distance trains)

Continued on next page

Accessible Transport, Continued

Light rail and tram

Accessible light rail and tram systems:

- Provide an appropriate door width to allow wheelchair entry
- Provide accessible access to wheelchair spaces with adjacent spaces for companion seating

Water ferries/ Cruise lines

Accessible city water ferries / cruise line services (if existing);

- Provide an accessible entry to the vessel that is of appropriate width with appropriate and circulation space
- Provide appropriate pathways to seating, viewing areas, toilets
- Provides unisex accessible toilets
- Provides accessible accommodation that includes an accessible ensuite facility (where accommodation is provided)

Airlines and airports

Accessible airlines and airports should:

- Provide mobility aids to passengers when requested
- Provide passenger Assistants that are able to accompany and assist people with mobility impairments from the transport drop-off to the check-in counter and through the security check points to the departure gate
- Provide unobstructed pathways
- Allow people who use mobility aids to keep them until the departure gate and return them upon on arrival at their destination
- Aisle wheelchairs that provide transport from their wheelchair to an aircraft seat and the on-board toilet

City parks and outdoor recreational areas

Key Principal

A key component to an accessible city is ensuring that parks and outdoor play areas respond to the needs of families where one or more family member has a disability. Basic physical access to parks includes consideration for people with mobility and/or agility impairments as well as support for people with visual impairments

Access to outdoor areas comes from barrier free pathways, appropriate curb ramps at each intersection and an expectation by planners that parks and outdoor facilities will be used by the whole community and not just the able-bodied portion of it.

Parks and Outdoor Recreation

Elements such as the following facilitate access to all members of the community:

- Intuitive way-finding techniques will assist people with cognitive or other intellectual disabilities as well as assist all other users, everyday.
- Pathways need to meet main accessibility requirements such as those regarding maximum gradients, minimum widths, adhering to vertical height differences etc. For specifications, please refer to the IPC Technical Manual on Accessibility.
- Concession stands and other service counters meet universal design principals* for counters

* Universal Design signifies a concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities.

Accessible Hotels & Accommodation Sites

Accommodation accessibility

Many people with disabilities are keen to travel, but a wide variation of gaps in the level of access provided, combined with poor information and negative experiences, may discourage them in doing so. Improved accessibility will not only result in economic benefits to the tourism industry but will also assist the move towards full social integration.
Accessible accommodation is key to this goal

Characteristics of accessible accommodation

Entry Way

- A minimum clear width of 915mm.

Closets

- Sufficient maneuvering space in front of closets
- Closet hangers that can be easily removed and re-hung. Hangers attached to fixed rings are not appropriate in an accessible room

Emergency planning

- Accessible guest rooms require both audible and visual emergency alarm systems
- Emergency evacuation signage is low mounted, written in high contrast with large print and include a floor plan with clearly marked exit locations
- Preferable, provision of evacuation equipment to assist people with mobility impairments exit the building as required (e.g. external evacuation ramp).

Telephones

- One telephone should be located within easy reach of the bed
- A telephone in the bathroom near the toilet and equipped with an extra long handset cord as a safety measure in case of falls

Beds

- Beds that are on legs – not fixed pedestals, so that there is sufficient space for the person to approach the bed
- Top height of 450mm - 500mm (from the floor to the top of the mattress)
- A 920mm aisle along at least one side of the bed
- A bed frame that permits a minimum 100mm x 100mm kick-space between the floor and the bottom edge of the bed, so that there is sufficient space for the person to approach the bed

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Accessible Hotels & Accommodation Sites, Continued

Characteristics of accessible accommodation (continued)

Lighting and controls

- Lighting switches and heating/air conditioning controls mounted at accessible heights (i.e. 89 -120 cm).

Furniture and Fittings

- No carpeting is preferable, however if it does exist, it should be low-pile, high density closed loop and glued directly to the floor
- Color contrast in finishes that helps to define surfaces and planes
- Window/curtain operators that extend to an accessible height (89 -120 cm)

Bathrooms

- Toilets that meet requirements for accessibility including seat height, seat support, appropriate grab bars and type and location of accessories
- Sinks equipped with levered or automatic faucets and scald guard technology
- Sinks equipped with offset traps or have insulated drains, to facilitate easy approach
- A minimum knee clearance for wheelchair users under the counter/sink
- An equal number of rooms with roll-in showers and accessible bathtubs.
- Emergency alarms in accessible washrooms in case of a fall

Accessible Leisure and Sporting Facilities

Accessible entertainment and leisure facilities

The key principles of accessible entertainment and leisure areas are similar to the requirements of sporting venues. It is generally recognized that the general public requirements for accessibility are provided for; however there is also strong reliance to ensure performers with disabilities are encompassed.

The key principles of access include:

- Pathways and circulation spaces from transport and parking areas that are of an appropriate surface, gradient and width, together with appropriate lighting and rest seating
- Main entrances that are accessible through the use of lifts or ramps
- A concession and merchandise area that allows an accessible entrance, pathway and check out area wide enough for a wheelchair
- Seating and or viewing areas that have appropriate wheelchair spaces with adjacent companion seating at the same level
- Back of house change rooms, warm-up and stage areas that are accessible to performers with disabilities
- Staff and volunteers who are aware of the accessible operations and infrastructure

Accessible art galleries, cultural venues, concert halls, displays, festival sites

- Lower counter at welcome desk for administration purposes by people who use wheelchairs
- Wheelchair seating spaces
- Hearing augmentation system to enhance public announcements
- Ramped access to stage areas and flag raising areas
- Ramped access to performance stages for performers with disabilities

Cinemas

- Wheelchair accessible seating with adjacent companion seating on the same level
- Hearing augmentation system for people with hearing impairment

Accessible Sport Venues

- Athletes entries should have ramp and / or lift access to the change-rooms, training fields and competition fields, in case of vertical height differences.
- Accessible medical and treatment rooms
- Accessible sporting equipment storage areas, with staff assistance (where required)
- Accessible toilets and showers within each of the gender change-rooms
- Accessible spectating athletes viewing areas
- Accessible presentation podiums

Accessible Services

Accessible Public Buildings and Workplaces

Access to services available to the public as well as access to employment is heavily related to the existence of accessible public buildings and workplaces. The following highlights generalized examples of required accessible infrastructure.

People who use wheelchairs or mobility aids

- Accessible transport links including car parking
- Accessible entrance and pathways within buildings and / or facilities
- Accessible unisex toilets
- Accessible emergency evacuation routes

People with vision impairments or who are blind

- Clearly defined pathways and workstations
- Computers or machines that can show large print
- Lifts that have Braille and auditory indicators
- Emergency alarms that are both visual and auditory

People with hearing impairments or who are deaf

- Emergency alarms that are both visual and auditory

People with dexterity impairments e.g. arthritis

- Door handles and operations panels that allow minimal gripping
- Ability to sit while at work for rest (depending on the industry)

People with intellectual impairments

- Clear and simple directions as to the work to be undertaken
- Develop a 'buddy' system that ensures additional support (if needed)

Accessible Games' Venues

Accessible Olympic & Paralympic Games Venues

A competition venue should allow every client group to effectively perform its role and/or enjoy the competition without obstacles.

The accessibility requirements for an Olympic and Paralympic competition venue deal primarily with transport loading zones, venue entries, circulation areas, function and service areas, emergency provisions, seating and standing areas, event experience and communication.

These requirements are included in the Technical Manual on Venue Design Standards.

Accessible Games Villages

The requirements listed here-after, along with detailed specifications, are included in the IPC Technical Manual on Accessibility.

Commented [A2]: In the TM on Venue Design Standards there is a chapter on Accessibility.
In the TM on Olympic Village there are only generic references. Thendetails listed here are included in the TM on Accessibility, which will be an attachment to the TM on Paralympic Games.

An accessible Games' village should provide:

- Pathways and circulation spaces of appropriate width to allow wheelchairs to pass
- Adequate street lighting to allow people with vision impairments to move with safety
- All building and housing main entrances that are accessible to wheelchair users
- Roadway crossings and kerb ramps that allow wheelchair users to transverse street crossings to key facilities and internal transport
- Housing and accommodation that allows wheelchair users with and without carers to have fully functional and independent access
- For every location of stairs ensure an alternative ramped option is available
- Accessible transport links to external transport
- Accessible transport links with the sites
- Staff and volunteers that are aware of the accessible operations and infrastructure

Houses and apartments that are adaptable, so that they may become fully accessible if needed are paramount for a Paralympic Village and an important legacy for post-Games.

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Accessible Games' Venues, Continued

Accessible Games Villages (continued)

The key elements of Adaptable Housing are:

- Limited or no threshold steps at the entry door
- Appropriately graded pathway from the street
- Door ways of enhanced width with enhanced latch side clearance for exiting
- Bathrooms that have studs in the walls, where if needed, a grab-rail could be installed. Basins and vanities that can have the cupboards underneath to allow appropriate knee clearances.
- All ground floor rooms allow all persons to enter, no matter of his/her physical abilities
- Open plan circulation to the kitchen and lounge area
- No threshold steps leading to the outside entertainment area.
- Access to the clothes line
- Door ways with enhanced latch side clearance for exiting
- Open plan bathrooms in which the toilet, shower (no steps / flush flooring) and basin are in the one room on the ground floor – the studs are pre-placed in the walls
- The kitchen benches are at the appropriate height and could have the doors removed to allow for circulation underneath it by a wheelchair