U.PORTO
FLUP FACULDADE DE LETRAS
UNIVERSIDADE DO PORTO

MESTRADO EM HISTÓRIA, RELAÇÕES INTERNACIONAIS E COOPERAÇÃO

Especialização em Relações Internacionais

A Multi-Level Governance Approach to Sustainability in Sports Mega-Events: Insights from the 2024 Paris Olympics

Yilin Zhang

M

2025



Yilin Zhang

A Multi-Level Governance Approach to Sustainability in Sports Mega-Events Insights from the 2024 Paris Olympics

Dissertação realizada no âmbito do Mestrado em História, Relações Internacionais e Cooperação, orientada pela Professora Doutora Joana Castro Pereira

Faculdade de Letras da Universidade do Porto

2025

Contents

Declaration of Honour....6
Acknowledgments....7
Abstract....8
List of Figures....9
List of Tables....10
List of Abbreviations and Acronyms....11
Introduction....13
1 Literature Review....19
1.1 Sports Mega-Events....19
1.1.1 Defining Sports Mega-Events....19
1.1.2 The Role of Sports Mega-Events in International Relations....19
1.2 Conceptualizing Sustainability....25
1.2.1 Defining Sustainability: Theory, Agenda, and Goals....25
1.2.2 Sustainability in Sports Mega-Events....29
1.3 Governance in Sports Mega-Events....32
1.3.1 The Governance of the Olympic System....33
1.3.2 MLG Theoretical Framework....37
1.3.2.1 The Adaptability of MLG Framework to Paris 2024....42
1.3.2.2 The Adaptability of MLG Framework to Sustainability....43
1.4 Filling the Gap: Combining Sports, Sustainability, and Multi-Level Governance....44
2 Research Methodology....47
2.1 Case Study Approach....47
2.1.1 Evaluation Model....48
2.1.2 Data Sources....51
2.2 Limitations....52
3. Analysis of MLG Practices in the Paris 2024 Olympics....53
3.1 Vertical Practices: Cross-Level Interaction....53
3.2 Horizontal Practices: Coordination at Each Level....59
4. Evaluation of Sustainability of the Paris Olympics....62
4.1 Triple Bottom Line....62
4.2 Reflections and Future Insights....68
Conclusion....75
References....80

Declaration of Honour

I hereby declare that this thesis/dissertation/report is of my authorship and has not been used previously in another course, degree, curricular unit or subject, at this or any other institution. References to other authors (statements, ideas, thoughts) scrupulously respect the rules of attribution and are duly indicated in the text and bibliographical references, in accordance with the rules of referencing. I am aware that the practice of plagiarism and self-plagiarism is an academic offence.

I further declare that I have not used generative artificial intelligence tools (chatbots based on large language models) to carry out part(s) of this thesis/dissertation/report.

Porto, 25/5/2025

Yilin Zhang

Acknowledgments

The last year I have been thinking about whether I should continue studying at university or choose to work. When I was doing an internship, I wanted to study and cherish my time in school, but when I was writing essays, I wanted to work and earn money. Life is too complicated. Now, my choice is to work, so this is my last thesis in my life; but maybe next year, I will come back to study and write annoying papers again.

Firstly, I would like to thank my parents Junlian and Daokui, my little sister Yixin, my grandparents, and all my friends for always supporting me. During the two years I lived alone far from home, I always missed them and wished to return home immediately. And I want to say that my sister is the most adorable child in the world.

I would like to express my heartfelt thanks to my supervisor, Professor Joana Castro Pereira, for her patience in reading and revising my work.

Then, I want to thank myself, so brave to study and live alone in a foreign country. I have become an emotionally stable adult and I believe in myself that I can solve all troubles independently.

Finally, I want to thank Porto. Everything about this city is fresh, warm, and radiant, one of the most beautiful experiences of my life.

Abstract

Facing the challenges of climate change and other environmental issues, the international community adopts various coordinated approaches to achieve sustainable development. Sports mega-events play a crucial role in global governance and possess considerable potential to promote sustainability. As the first Olympic Games following the 2020 Agenda reforms, the Paris 2024 Olympics involves various actors from different levels in its governance, to coordinate both vertically and horizontally towards sustainable development. The sustainable performances of Paris 2024 are evaluated using the model of Müller et al. (2021) from ecological, social, and economic dimensions, indicating that although the Paris 2024 Olympics made considerable efforts in sustainability, the overall results fell short of expectations. The case reflects the challenges faced by sports mega-events in promoting sustainable development and the weakness of multilevel governance. In light of these findings, future sports mega-events should draw lessons from the Paris 2024 Olympics by emphasizing long-term legacy planning and social justice, while strengthening accountability mechanisms across governance levels. The international community should establish an independent body of sustainability assessment with transparent and fair principles to unify standards of sustainability.

Keywords: Paris 2024 Olympics, sustainable development, multi-level governance, sports mega-events

List of Figures

Figure 1: Vertical Governance Structure in the Paris 2024 Olympics. 54
Figure 2: Sustainability of the Paris Olympic Games 2024 by indicator. 62

List of Tables

Table 1: The Millennium Development Goals (MDGs). 27
Table 2: The Sustainable Development Goals (SDGs). 27
Table 3: The Role of Sport in Achieving Development Goals 30

List of Abbreviations and Acronyms

CAS ..... Court of Arbitration for Sport
CNOSF ..... French National Olympic and Sports Committee
CoR ..... Committee of the Regions
COJOP ..... Organising Committee for the Olympic and Paralympic Games Paris 2024
CPSF ..... French Paralympic and Sports Committee
ECHR ..... European Convention on Human Rights
EIB ..... European Investment Bank
ESF ..... European Social Fund
EU ..... European Union
GDP ..... Gross Domestic Product
GDPR ..... General Data Protection Regulation
GPE ..... Grand Paris Express
IDFM ..... Île-de-France Mobilités
IFs ..... International Federations
IOC ..... International Olympic Committee
IR ..... International Relations
ISO ..... International Organization for Standardization
KPIs ..... Key Performance Indicators
MDGs ..... Millennium Development Goals
MLG ..... Multi-Level Governance
NGBs ..... National Governing Bodies
NOCs ..... National Olympic Committees
OCOGs ..... Organizing Committees for the Olympic Games
OGI ..... Olympic Games Impact
OECD ..... Organization for Economic Co-operation and Development
OGOCs ..... Olympic Games Organizing Committees
RATP ..... Paris Transport Authority
SDGs ..... Sustainable Development Goals
SEA ..... Single European Act
SNCF ..... National Society of the French Railways
SOLIDEO ..... Société de Livraison des Ouvrages Olympiques
UN ..... United Nations
UN DESA ..... United Nations Department of Economic and Social Affairs

UNCED..... United Nations Conference on Environment and Development

UNFCCC ..... United Nations Framework Convention on Climate Change

UNOSDP ..... United Nations Office on Sport for Development and Peace

WADA ..... World Anti-Doping Agency

COPs ..... Conferences of the Parties

Introduction

After the Second World War, states focused on the developments in economic areas to realize economic reconstruction, transformation, and growth, through different policies and strategies. During this process, humans put more attention on the growth of GDP (Gross Domestic Product) and high level of life instead of environmental protection. At the end of the twentieth century, the whole world was facing an unprecedented environmental crisis. Climate change, biodiversity loss, and extreme weather happened frequently, which were affecting the stability of human society and ecosystems with unprecedented speed and intensity. The continued rise of greenhouse gas emissions brought higher global temperatures, and the extreme weather disasters caused huge threats to food security, public health, water management, and social stability. Besides, the climate problem also led to social vulnerabilities, such as resource poverty, triggering violent conflicts and terrorist activities, which continued to worsen inequality and instability in the global development process (Spadaro, 2020; Telford, 2020; Asaka, 2021). All these challenges not only went beyond national boundaries but also are so far beyond the capacity of any single body of governance to handle with. They have continued to worsen during this century.

Before the twenty-first century, the United Nations Decade programs were designed to promote development in all aspects of the global community, with the main goal of narrowing the gap between developed and developing countries to realize global economic and social progress through international cooperation. However, economic development could be heartless, and the focus on the GDP usually overshadowed the human real needs, resulting in a lack of resources and injustice (Fukuda-Parr, 2004). In the year 2000, the Millennium year, all 189 member states of the United Nations (UN) agreed to voluntarily achieve the Millennium Development Goals (MDGs) by 2015 (Lomazzi et al., 2014). MDGs shifted the focus of international society from economic development to challenges in the social sphere, then to achieve common human development and raised wide public attention about poverty, hunger, disease, unmet

needs in education, gender inequality, and environmental degradation. Many developing countries, such as China and Brazil, behaved well with those MDGs and completed some goals of poverty reduction. By implementing MDGs, the international community realized that environmental goals should be at the same level as human needs goals. In 2015, the UN adopted the report *Transforming our world: the 2030 Agenda for Sustainable Development* (UN, 2015), establishing 17 Sustainable Development Goals (SDGs), many of which are directly concerned with environmental protection and the sustainable use of resources. Based on lessons and experiences of MDGs, SDGs focus on the achievement of coordinated development of the society, the economy, and the environment.

Goal 13 of the SDGs, "take urgent action to combat climate change and its impacts" (UN, 2015), indicates that the climate problem has been seen as one of the most urgent and complex topics in the global governance system, requiring the full cooperation of all states. Since the late 1980s, the international community has launched continuous diplomatic negotiations around climate change and has reached many formal agreements. Among them, the United Nations Framework Convention on Climate Change (UNFCCC), adopted in 1992, and its annual Conferences of the Parties (COPs) consist of the core of this process. COPs have already led to several important resolutions and also have regularly adopted new agreements, such as the Kyoto Protocol in 1997 at COP3 and the Paris Agreement in 2015 at COP21. The Paris Agreement has become the cornerstone document for global efforts to address climate change, setting clear temperature-control targets and a framework for action by the international community. The Paris Agreement aims to control the global average temperature rise to less than 2°C compared to the pre-industrial period and pursues to limit the temperature rise to 1.5°C (UNFCCC, 2015). States committed to reaching the global peak of greenhouse gas emissions as soon as possible and achieving global climate neutrality by mid-century. In recent years, topics of COPs have increasingly tended to focus on climate financing and technical innovation, both of which are beneficial to the coordinated development of different regions of the globe

to deal with climate change (Pereira & Viola, 2020).

However, the implementation of the SDGs still faces many obstacles in practice. National interests driven by realism often take international cooperation into trouble. The development of environmental policies usually gives way to short-term economic considerations. Besides, the state actors have different preferences in the implementation of policies, seeking more self-interest gains at the expense of others. In addition, multiple crises in recent years, such as COVID-19, the economic recession, geopolitical conflicts, the energy crisis, etc., have made the difficult SDGs even more difficult to achieve. The so-called “green commitments” have often turned into “greenwashing”, which means packaging projects or policies in environmental terms but lacking real effects in protection or emission reduction (Boykoff & Gaffney, 2020). This phenomenon is particularly common in international sports mega-events.

Under this context, international sports mega-events have been considered crucial platforms to promote global sustainable actions. As the most influential international sports mega-event, the Olympic Games involve a wide range of political, economic, social, and environmental dimensions. Host countries often hope that the event will stimulate local economic development, enhance international reputation, and help optimize urban infrastructure development. The World Economic Forum (2024) noted that collective action on sustainability can “move the needle on global risk reduction”, indicating that massive cross-border cooperation is still essential for threats related to human security and development. As an international sports mega-event, the Olympic Games can play the role of that type of cooperation to reduce global crises. In recent years, the “green Olympics” has become one of the key issues, and sustainability has gradually been involved in the organization of the event as an important goal by the hosts also, different actors concerned with this event pay more attention to this area (Boykoff & Mascarenhas, 2016; Samuel & Stubbs, 2013).

However, due to the enormous scale of the Games, the preparation, execution, and after-effects of events are challenging initiatives, which might impose substantial financial burdens and unnecessarily squeeze social space to host countries, because

of that, many countries have quit their plans of hosting the Olympics (Meza Talavera et al, 2019; Wolfe, 2022). Besides, there are lots of negative comments about the Olympic Games' green slogan. Although previous Olympic Games have promised the implementation of "Green Olympics" at the beginning of the bidding period, the actual results have been less than satisfactory, such as those failed cases of Beijing 2008 Olympics, London 2012 Olympics, and Rio 2016 Olympics, which were criticized as greenwashing. The sports events themselves will leave their own ecological marks, or to explain it directly, pollution, and they also provide symbolic cover for other more crucial polluters, like sponsor corporations. Boykoff and Mascarenhas (2016) refer to this as a special "environmentalism of Olympics", which means symbolic, propaganda-oriented environmental behaviors presented in the Olympics without addressing real sustainability issues.

Facing intense pressure from negative reviews of previous Olympic Games, Paris 2024 was named the "greenest" Olympics ever and was the first Games corresponding to the Olympic Agenda 2020 (Legrand, 2024; Masterson, 2024). The host pledged to reduce the carbon footprint by half compared to previous Games (Masterson, 2024). In the past, organizers have typically invested heavily in their new arenas and facilities, but 95% of events of Paris 2024 were held in existing buildings or temporary infrastructure, which can promote urban integration and transformation, as one actual practice of sustainable development (Masterson, 2024). However, some media and environmental organizations remained skeptical about the authenticity of the green commitments of Paris 2024, which reflects the structural challenges of achieving the SDGs in international mega-events.

Sustainability theory has a triple bottom line and aims to achieve the coordinated development of the economy, society, and environment (Sachs, 2012). Sachs (2012) mentions that the successful realization of three elements needs good governance from all levels, local, national, regional, and global, which not only requires the organizers' efforts, but as well as requires collaboration between multiple levels of government bodies, international organizations, non-governmental organizations, and

private sectors. The multi-level governance (MLG) is the key path to achieving this goal, which can handle complex policy challenges effectively through vertical and horizontal coordination and interaction between actors at different levels. The complexity of governance and diversity of stakeholders in Paris 2024 meets the framework of MLG. Besides, MLG is the main core of the governance of the European Union (EU) and is deeply embedded in the policy-making and implementation process of EU member states, so France, a member state of the EU, has mature governance habits and good achievement of MLG. Therefore, the Paris 2024 Olympic Games can be considered a classic example of the deep combination of sports, sustainability, and multi-level governance.

Based on the above, this thesis analyzes the practices in the sustainability of sports mega-events from a multi-level governance (MLG) perspective, using the 2024 Paris Olympics as a case. It aims to examine the key actors and interaction mechanisms within the multi-level governance system of the 2024 Paris Olympics, and analyze how they contribute to sustainability across the ecological, economic, and social dimensions; to evaluate the specific sustainability measures implemented at the 2024 Paris Olympics and compare them to previous editions of the Olympics; and to provide theoretical and practical insights for future sustainable governance of sports mega-events based on these analyses.

This thesis is divided into five chapters, which are literature review, research methodology, multi-level governance practices, evaluation, and conclusion chapters. In the literature review chapter, I will introduce the current state of studies and the theoretical framework; in the research methodology chapter, I will introduce the research methods used in this paper and explain the data sources; then, in the multi-level practices chapter, I will introduce the implementation of the MLG system in the Paris 2024 Olympics, involving the coordination and conflicts on vertical and horizontal levels between various actors; in the evaluation of sustainability section, I will use the analysis model to analyze whether this game is consistent with the sustainability framework; and in the conclusion chapter, the findings of this paper will be

summarized.

1 Literature Review

1.1 Sports Mega-Events

1.1.1 Defining Sports Mega-Events

Roche's (2000) definition of mega-events has been acknowledged by many scholars (Grix & Houlihan,2013; Horne & Manzenreiter, 2006): “large-scale cultural (including commercial and sporting) events, which have a dramatic character, mass popular appeal, and international significance” (Roche, 2000). According to Müller's (2015) research, mega-events have a fixed duration and are held on a mobile basis. He presents four dimensions of the definition of mega-events: attractiveness to a massive tourist population, wide media outreach, high costs, and a substantial impact on the built environment and population, and Müller points out that the range of mega-events has no specific limitations, involving sports and non-sports events (Müller, 2015). Non-sport events, such as expos, political summits, or festivals, are also considered mega-events (Rose & Spiegel, 2011). Byers et al. (2012) describe mega-events as one-off international sports events organized by a particular agency. The word “mega” in mega-events is a direct reference to the nature of that type of event, which has a huge impact on all aspects of the international community.

1.1.2 The Role of Sports Mega-Events in International Relations

The international sports mega-events serve as a huge international arena providing space for various actors in international relations, while the governance and performance of sports mega-events are shaped by these actors and the dynamic developments of international relations. The sport itself has a unique charm and is an important part of the public’s daily life, with a broad mass base. Besides, the continuous advancement of mass media technology, like global live streaming and broadcasting, has also made it possible for sports events to be shown more directly and quickly to the whole world audience so that their influence can radiate across the globe. Once sports have gained a certain degree of popularity, they become a crucial

tool of international politics, playing an important role in shaping the state image and promoting diplomatic policies (Kobierecki, 2013). Sports events not only are a window to a country's image but also an essential variable in influencing national diplomacy and policy, with a distinctive role to play in global governance and international relations. National actors bid for international sports events not just to host competitions, but also to gain opportunities for national developments in various aspects.

Successful bids for the Olympic Games and hosting of international sports mega-events can reflect the economic and organizational strength and capacity of the host country. Those countries that bid for hosting sports mega-events hope for long-term positive effects, such as the development of tourism, the improvement of employment and the bigger trade, etc. For example, the Los Angeles 1984 Olympics gained an economic boost and became the only profitable Olympic Games, and the Barcelona 1992 Olympics became the destination of the whole world's tourists after the Games (Walker. 2014; Baade & Matheson, 2016). Furthermore, sports mega-events can be used by cities for urban renewal and extra investment for facilities needed by cities, as "catalysts" (Baade & Matheson, 2016). This leverage of sports mega-events can help to extend the impact of the event and drive policy-making (Smith, 2013). For most of the twentieth century, hosting the Olympic Games was an affordable burden for host countries and cities, most of which were usually held in wealthy and developed countries, such as Western Europe or the United States (Baade & Matheson, 2016). The International Olympic Committee (IOC) encouraged developing countries to bid to host the Olympic Games, and by around 2000, more than half of the bids were from developing countries, such as Beijing 2008 and Rio 2016. In recent years, more and more countries have quit the bid because they have learned the consequences of hosting international sports mega-events and they should consider seriously the high cost. Baade and Matheson (2016) conclude many researchers' studies that hosting international sports mega-events such as the Olympics and the World Cup generally fails to achieve positive economic feedback, with the costs usually far outweighing the

benefits, and in most cases, hosting is always a money-losing proposition. In addition to the high costs involved in the organizing progress, the bidding preparation also costs a lot. In the bidding process, countries tend to inflate their budgets and compete with other countries in order to succeed in winning the bid, leading to higher costs, which is seen as the “winner curse” (de Nooij, M & van den Berg, 2017; Baade & Matheson, 2016).

Hosting sports mega-events is widely recognized as a valuable opportunity to enhance a country’s soft power and showcase its culture, language, history, and traditions to the world, thus it has become a common tool of politics and diplomacy to use sport to gain international prestige (Boykoff, 2022; Lee Ludvigsen et al., 2022). Sports have played a vital role in community and national forming, and have a long history of collaboration with diplomacy; however, that intersection between them seems largely underestimated (Feizabadi et al., 2015; Acuto, 2013; Murray, 2013).

Soft power is the ability to influence other countries through attraction without coercive pressure in pursuit of their desired outcomes. In contrast to hard power, which relies on traditional military and economic forces, soft power depends on a country’s culture and values, appealing to the appreciation and recognition of other countries (Müller & Steyaert, 2013; Nye, 2008; Wilson, 2008). To achieve the best performance of soft power and extend the reach of its culture and values, public diplomacy is an efficient way to coordinate cultural resources and can directly affect the public of the target country instead of just the government, like traditional foreign policy (Nye. 2008). Sports itself and sports mega-events are a new tool for public diplomacy.

As mentioned above, sport is an important part of the public’s daily life and has wide mass support. Sports mega-events offer a great stage for countries to implement public diplomacy. International sports mega-events provide a great stage for host countries to showcase their culture, values, and international image, and also convey their spirit of friendship, security, equality, and even the good signal of trade (Rose & Spiegel, 2011). Besides, sports mega-events are not only a platform for the display of

competitive activities, but also a powerful tool to foster the construction of nation-state identity, enhance cultural identity, and maintain national cohesion, which influences the behavior of the state in the international arena (Arnaud, 1998; Cha, 2009; Feizabadi et al., 2015; Lemus-Delgado, 2023; Tagsold, 2010). As a highly symbolic public diplomacy scene, the opening and closing ceremonies of international sports events have become an important way of displaying the national image, carrying the key function of spreading the national identity and narrative to the whole world. Through high-level performance, hosting countries can build up their positive image and convey their unique cultural heritage and characteristics, showcasing history, present achievements, and future direction. Furthermore, sports diplomacy provides a softer path for nations to reconcile conflicts between them. For example, the Ping Pong diplomacy between China and the United States in 1971 realized the normalization of China-US relations, and the football diplomacy between Turkey and Armenia overcame a century of mutual animosity, both examples exemplifying how sports can shift geopolitical dynamics—"small balls spinning the big ball" (Feizabadi et al., 2015; Tait, 2008; Murray, 2013).

Although sport is essentially regarded as a symbol of peaceful communication, sport diplomacy often is associated with cultural communication and public diplomacy, reflecting the logic of soft power. However, in international politics, international sports mega-events are always related to national status, diplomatic strategy, and even security issues, which can be considered another battlefield for the game of national interests. From the perspective of realism, athletic competitions in sports mega-events have become a non-military stage for power projection and competition between states, serving the struggle for their dominance and interests in the international system (Waltz, 1979). According to Waltz (1979), in the realistic framework, the international system is a state of anarchy, in which the state is the main actor whose basic motivation is to seek survival, power, and security. The realist competition responds to "competitive", the nature of sports, and makes sports mega-events show the national power in a non-political way. In other words, sports mega-events provide

symbolic arenas for states to show a variety of strengths ranging from athleticism to the ideology of a particular national system (Murray, 2013; Kobierecki, 2013). Generally, the Olympic Games are a typical case of sports mega-events and are widely regarded as the most political sports event (Grix, 2013). Therefore, in this paper, the Olympic Games will be used as an example to analyze in depth the governance mechanisms of sports mega-events and their sustainable development practices.

According to Kobierecki (2013), the medal table and the athlete participation are seen not only as the individual behavior and achievements of athletes but also are interpreted as victories for the state, even for geopolitics groups or political regimes. Participation in international sports mega-events is beneficial for new countries to improve their international recognition, while the absence or boycott also can be used as a diplomatic means of expressing the national attitude (Müller & Steyaert, 2013; Kobierecki, 2013). For instance, in the 1936 Berlin Olympics, the Nazi government used it as a showcase for the "New Germany", hoping that it would gain international recognition by this Games and would signify its existence on the world stage (Chappelet, 2021). During the Cold War, the military and space race between the United States and the Soviet Union was extended to the Olympic Games, and sports events were used for ideological confrontation (Guttmann, 1988). Due to the dissatisfaction with the Soviet Union's invasion of Afghanistan, President Jimmy Carter of the United States announced a boycott of the 1980 Moscow Olympics, banning American athletes from joining the Games; in response, the Soviet Union also boycotted the 1984 Los Angeles Olympics hosting by the United States; however, the boycotts on both sides was the pursuit of their national interests and ideologies, but the pursuit for sport of individual athletes was buried under the weight of international conflicts (Guttmann, 1988). In addition, the Beijing 2008 Summer Olympics made a great effort to occupy more places on the gold medal table, and to achieve this goal, they developed the special elite training system called the Juguo Tizhi, which further contributed to international and academic attention to the connection between sports mega-events and world politics (Kobierecki, 2013; Acuto, 2013). International sports

mega-events can reflect dynamic trends on the current world stage.

From the international perspective, the Olympics is not only a global sporting event but also carries the important mission of promoting human rights and social progress. The *Olympic Charter* clearly states its goal, "the goal of Olympism is to place sport at the service of the harmonious development of humankind, with a view to promoting a peaceful society concerned with the preservation of human dignity" (IOC, 2025). This goal indicates that the core value of the Olympics is to promote human dignity and social justice. *The Charter of Physical Education and Sport*, adopted by UNESCO in 1978, also explicitly highlights in Article 1 that "the practice of physical education and sport is a fundamental human right for all" (UNESCO, 1978). As a fundamental human right, sports should provide equal opportunities for all people to participate, regardless of gender, race, nationality, or social background. Sport conveys positive messages in the context of shared values, such as mutual respect, tolerance, empathy, and discipline, and these positive values can moderate differences in various aspects of society, such as racism, xenophobia, and other topical social issues. Beutler (2008) argues that sport has been identified as an innovative tool and as an international language, which means that sport can build a bridge between people to connect with each other for a common community. However, since 2008, all of the sports mega-events have been criticized by rights discourse because they are considered to lead to exacerbation of social inequality (Horne, 2017). For example, the Rio 2016 Summer Olympics made great promises to "fit global expectations of modernity", but turned out that they were just symbolic; the construction of facilities and arenas came at the cost of the removal of people from favela, and the pollution in Guanabara Bay put athletes' health in danger, all of those cases indicating the negative effects from sports mega-events on human rights (Boycott, 2016; Horne, 2017). Sport as a basic human right is directly or indirectly related to many of the goals in the MDGs and SDGs, especially in healthy and educational goals, and the UN finds that sports-based initiatives are practical and cost-effective tools for achieving development and peace objectives (Beutler, 2008). The interaction between the UN and sports mega-events will be introduced in the next

part. In short, the purity in sporting events filters all problems of society so that when they are in sports mega-events, people focus on the spirit of sport rather than their differences, which can promote the realization of human rights. However, this function still needs to be deepened and improved through governance and supervision.

1.2 Conceptualizing Sustainability

1.2.1 Defining Sustainability: Theory, Agenda, and Goals

In the area of international relations, as a cross-disciplinary concept, sustainability can be interpreted in three related but independent dimensions: the theoretical basis, the international agenda, and the practical goals. The concept of sustainability initially originated in the field of ecology, focusing on environmental aspects and referring to the potential of ecosystems to persist over time and remain stable (Jabareen, 2006). By the middle of the 20th century, the conflict between the industrialization and globalization of human societies and the environmental crisis led to a parallel focus on "environment" and "development", turning to sustainable development, which meant that the form of economic development model had to change (Mebratu, 1998). In 1987, the concept of sustainability was systematically introduced in *Our Common Future*, also known as the *Brundtland Report*: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). It contains key elements of equity, needs, and limitations that have established the importance of sustainable development as a global policy discourse (Hediger, 1999). There are different models of sustainable development, such as the debate between "weak sustainability" and "strong sustainability". Strong sustainability is characterized by a nature-centered perspective, which stresses the irreplaceability of natural capital in processes of production and consumption, and requires serious limitations in the consumption of natural resources within certain ranges; on the other hand, weak sustainability picks a human-centered view, in which technological advances and alternative resources can cover the loss of natural resources, not requiring a complete

balance in all aspects (Shi et al., 2019). However, both models of sustainability have their drawbacks in that the strong model sets a lot of constraints on the economic development of developing countries, while the weak model is overly optimistic about human ability to dominate nature and technological advances (Shi et al., 2019). According to Shi et al. (2019), most scholars in this field are more favorable toward weak sustainability than strong one, often using "the simple sum of three systems (economic, social, and environmental) to measure the SD level" (Shi et al., 2019). In the current context of the interactive economy, it is crucial to combine strong and weak sustainability together and integrate their goals with the goals of positive social and economic development.

Following the emergence of a global consensus on environmental and development issues, the sustainable agenda has been driven by various international organizations, notably through the actions of the United Nations. In 1992, at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, also known as the "Earth Summit", the *Agenda 21* (UN, 1992) was one of the major results, which extended sustainability to the global range and put the theory into practice for the first time, mentioned the responsibility of both developed and developing countries for environmental issues, added sustainable development in the social sphere and rose the international growing concern about the natural crises, social inequality, and limited resources. Sachs (2012) states that sustainable development with triple bottom line, aiming to combine economic development, environmental sustainability, and social inclusiveness. In addition, in order to motivate various actors of the international community to rapidly engage in global sustainable development, the practical goals demonstrate the specific missions that humans urgently need to address. The eight Millennium Development Goals (MDGs) were formally established with the UN *Millennium Declaration* in 2000 at the UN Millennium Summit, to reduce extreme poverty by 2015 (UN, 2000). These eight goals are:

Table 1: The Millennium Development Goals (MDGs).

The Millennium Development Goals (MDGs)	
Goal 1	Eradicate extreme poverty and hunger
Goal 2	Achieve universal primary education
Goal 3	Promote gender equality and empower women
Goal 4	Reduce child mortality
Goal 5	Improve maternal health
Goal 6	Improve maternal health
Goal 7	Ensure environmental sustainability
Goal 8	Develop a global partnership for development

Source: United Nations. (2008). *Official list of MDG indicators.* https://www.un.org/womenwatch/daw/egm/impact_bdpfa/informational/BP2%20-%20MGDSOfficialList2008.pdf

In 2015, all UN Member States passed the *Transforming our world: the 2030 Agenda for Sustainable Development*, centered on the 17 Sustainable Development Goals (SDGs), which aim to bring together economic development, environmental sustainability, and social inclusion (UN, 2015).

Table 2: The Sustainable Development Goals (SDGs).

The Sustainable Development Goals (SDGs)	
Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages

Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Source: United Nations General Assembly. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development* (Resolution 70/1). https://docs.un.org/en/A/RES/70/1

Sachs (2012) suggests that the fulfillment of the SDGs will require a global economic, social, and environmental effort, but that the success of the triple bottom line will depend on a fourth condition: good governance at all levels, local, national, regional and global, which reveals that the SDGs must be driven by mechanisms of cooperation and coordination across the different levels of governance. Spangenberg (2004) also argues that the foundation of sustainable development is the combination of four elements: institutional, social, environmental, and economic, the institutional aspect focuses on achieving social equity and public participation, and related democratic and political processes. In this paper, "sustainability" will focus on its application in global governance, particularly in the context of international sports mega-events such as the Olympic Games. The policies and plans of the IOC and host countries are influenced by the global sustainability agenda, and the SDGs have become an important reference for event organizers in developing their environmental, social, and governance strategies. Meanwhile, by exploring the governance mechanisms of the Olympic Games, it discusses how sports mega-events can advance the sustainability agenda and attempts to assess the environmental, social, and governance practices they adopt and their actual effectiveness.

1.2.2 Sustainability in Sports Mega-Events

The UN has always recognized sport as an important contributor to the achievement of development and peace goals. The 2003 report of the United Nations Office of Sport Development and Peace (UNOSDP) acknowledged the power of sport stating that "The fundamental elements of sport make it a viable and practical tool to support the achievement of the MDGs"(United Nations Inter-Agency Task Force on Sport for Development and Peace, 2003).The 2018 United Nations General Assembly resolution *Sport as an enabler of sustainable development* encourages Member States and relevant stakeholders to highlight and promote sport as a tool for sustainable

development, recognizing the role played by sport and the Olympic Movement (United Nations General Assembly, 2018). Besides, sport is an important contributor to the achievement of the SDGs and MDGs, helping to fulfill the goals in the areas of health, education, social inclusion, etc. According to Lemke (2016), sport corresponds to the MDGs and SDGs as follows:

Table 3: The Role of Sport in Achieving Development Goals.

MDGs / SDGs	Role of sport
MDG 2 MDG 4 SDG 4	Sport is added to school education in combination with the school curriculum, which benefits the overall education of children and youth.
MDG 3 SDG 5	Sport encourages equal participation, empowers women and girls and promotes gender equality.
MDG 4 MDG 6 SDG 3	Regular participation in sport benefits the physical and mental health of all human beings
SDG 11 SDG 16	Sport makes cities and communities more inclusive, creating safe environments, preventing conflict and advancing lasting peace.
MDG 8 SDG 17	Sport can build strong and cohesive network ties and maintain global partnerships among all stakeholders.

Source: Lemke, W. (2016). The role of sport in achieving the Sustainable Development Goals. *UN Chronicle*. https://www.un.org/en/chronicle/article/role-sport-achieving-sustainable-development-goals

Since the 1992 Earth Summit (UN, 1992), which brought environmental issues into the context of sustainable development, the IOC has been systematically promoting

Sustainable Olympics, with legacy as one of the core issues to be planned. According to IOC (2021a), Olympic legacy refers to “includes the long-term benefits that the Olympic Games create for the host city, its people, and the Olympic Movement before, during and long after the Olympic Games”, involving economic, social, and green aspects. Glasson (2024) refers the legacy to the physical legacy of the infrastructure and facilities left by the Olympic Games, but also to the cultural legacy of residents' pride and sports participation, as well as international reputation. In the Olympic Charter (IOC, 2025), the IOC has the responsibility to “promote a positive legacy from the Olympic Games to the host cities, regions, and countries”. As one of the results of the *Olympic Agenda 2020*, the IOC Sustainability and Legacy Commission was established to provide guidance on important sustainability themes and assess the execution to maximize positive impacts and promote positive legacy in the social, economic, and environmental spheres (IOC, 2017a; IOC, 2018a).

However, practically, the Olympic legacy is often not as effective as it should be. There is a huge gap between the IOC's words and the reality in Olympic host cities, which is suspected of greenwashing, such as the 2000 Sydney Olympics, where competition was scheduled to take place on ecologically sensitive beaches; the 2008 Beijing Olympics, where environmental policies lasted only for the duration of the Games; the 2016 Rio Olympics where destroyed original plant cover in order to build the competition venues; and the 2020 Tokyo Olympics where was claimed that the most costly sports venue has empty post-Olympics use (Yamazaki 2019, as cited by Boykoff & Gaffney, 2020). “Greenwashing” is superficially caring about the environment and claiming to offer solutions, while in reality doing the bare minimum of eco-benefits, which has paralyzed the public's perception of the environmental impact of the Olympics (Boykoff & Gaffney, 2020). The IOC is good at using “green branding” to attract consumers to choose the goods from its sponsors to realize the extension of commercialization (Glasson, 2024). Some scholars have argued that the so-called sustainability value of the Olympics is an opportunity for “social leveraging” and that it is impossible to achieve true sustainable development (Boykoff & Mascarenhas,

2016). Leopkey and Parent (2015) point out that there are few studies on the governance of stakeholders and legacy management, and also mention that future research on these topics can provide fundamental policy recommendations for future sports mega-events.

To achieve true sustainability, the IOC wants to prove its efforts. According to IOC President Thomas Bach, “The universality and global appeal of sport means that the IOC and the Olympic Movement have a special responsibility to promote a sustainable future for our world” (IOC, 2018b). In 2014, the IOC adopted the *Olympic Agenda 2020*, which contains 40 recommendations based on a framework of three related pillars: Credibility, Sustainability, and Youth (IOC, 2014). The aim is to reform the Olympic Games and reduce the costs of the bidding and running of the Games. Among the recommendations, some of them are related to sustainable development:

- Recommendation 4: Include sustainability in all aspects of the Olympic Games;
- Recommendation 5: Include sustainability within the Olympic Movement’s daily operations;

These demonstrate the IOC's commitment to achieving sustainability (IOC, 2014). At the time of the adoption of the Agenda 2020, the bidding process for the 2024 Olympic Games had already begun, so the Paris 2024 is the first Olympic Games to be fully consistent with the *Olympic Agenda 2020* (IOC, 2014). Undoubtedly, the past greenwashed Olympics have also led the public to question the sustainability of the Paris Olympics (Boykoff, 2025). In the following paper, we will analyze the sustainability initiatives in the policy design and implementation process of the Paris Olympics through the lens of multi-level governance, in order to judge whether the Olympics have truly escaped the accusation of “greenwashing”.

1.3 Governance in Sports Mega-Events

The “mega” indicates the complexity of the organization and governance of sports mega-events. All mega-events involve complex and prolonged bidding, planning, and

construction phases, often requiring cross-border resource flows, large-scale infrastructure development, and social mobilization, and can affect a wide range of economic, cultural, political, security, and environmental aspects, as well as involving multiple public or private stakeholders (Lee Ludvigsen et al., 2022). Horne and Manzenreiter (2006) state that sports mega-events decision-making is often chaotic and lacks transparency, requiring stronger governance and regulation. According to the Australian Sports Commission (2012), the governance in sports mega-events relates to three key elements:

> how an organization develops strategic goals and direction; how the board of an organization monitors the performance of the organization to ensure it achieves these strategic goals, has effective systems in place and complies with its legal and regulatory obligations; ensuring that the board acts in the best interests of the members. (p. 2)

In addition, Sachs's (2012) view about the realization of the triple bottom line of sustainable development emphases that it is not achieved in isolation, but relies on a multi-level, coherent, and coordinated governance, including the promotion of the global agenda at the international level, the guarantee of policies and resources at the national level, and the implementation of concrete measures and public participation at the local level. This further highlights the fact that establishing solid governance is essential to ensuring that sports mega-events contribute to sustainability goals.

1.3.1 The Governance of the Olympic System

The Olympic system is a complex framework. From the beginning to the present, the number of stakeholders involved has increased significantly, and their connections have become more intricate. As the supreme authority, the IOC is at the core of the Olympic system, which serves not only as the guardian of the Olympic Charter but also as the normative authority and symbolic leader of the Olympic Movement. The Olympic Charter recognizes three principal institutions: the IOC, International Federations (IFs), and National Olympic Committees (NOCs) (IOC, 2025). Established in

1894 under the initiative of Pierre de Coubertin, the IOC organized the first modern Olympic Games in Athens, Greece, in 1896. According to Chappelet (2021), during the period from 1900 to 1960, five major stakeholders shaped the classical Olympic governance system: the IOC, IFs, NOCs, Olympic Games Organizing Committees (OCGCs), and National Governing Bodies (NGBs). From 1960 to 2010, the scale of the Games grew substantially, and more stakeholders participated, resulting in Regulated Olympic System Governance. Due to the Cold War, the political importance of sports increased, making governments recognize the value of the Olympic Games and provide financial subsidies for hosting and organizing them. At the same time, the Games began to attract media attention and both domestic and international sponsors, generating substantial economic benefits. Following 1990, the Court of Arbitration for Sport (CAS) and the World Anti-Doping Agency (WADA) joined the governance structure to assure fairness and justice at the Olympic Games, helping in the filling of regulatory gaps. In the Current Olympic System Governance, the Olympic administration is entering a period marked by the rise of secondary stakeholders, including civic groups, athletes, and national courts. As society has evolved, more emphasis has been placed on athletes' individual experiences, while civic groups' influence in shaping public opinion has grown, occasionally leading to anti-Olympics protests. Furthermore, in dealing with accusations of sports corruption at the Olympic Games, the CAS is confined to arbitration and lacks the jurisdiction to conduct judicial reviews. As a result, national courts play an increasingly essential role in Olympic governance Chappelet (2021).

Olympic planning and hosting are a broad, multi-level, multi-sectoral, and multi-stakeholder process (Parent, 2015). The Olympic Games have exceeded the organizational capacity of local governments, which need to pass special laws to open the way for the Olympic Games and create the right conditions, such as taxation and urban planning (Chappelet, 2021). Due to the multiple influences and multiple stakeholders, many scholars mention the need to understand the governance of the Olympic Games from the perspective of integrating multiple resources and networks.

According to Chappelet (2021), the traditional hierarchy of the Olympics should be broken, and although the IOC is the highest authority of the Olympics, the Olympics cannot go smoothly without the participation of other stakeholders. Therefore, the IOC should use a collaborative network to work with other stakeholders to meet their expectations. The concept of collaborative network comes from the field of public management and is essentially a formalized governance for cross-sectoral cooperation, where resources and capabilities are integrated continuously over a period of time to achieve common goals in cooperation with stakeholders from other sectors (Shilbury et al., 2016). Specifically, it means that public institutions and non-government actors, through a formal process of consultation and with the objective of seeking agreement, formulate collective decisions based on discussion, and use them to develop and implement public policies (Ansell & Gash, 2008). Parent (2016) notes that the complexity of Olympic governance can be understood using Smith's (2011) multi-jurisdictional governance that requires intense cross-organizational consultation between different organizations and sectors, the creation of new organizations to facilitate collaboration, and the need for specific skills and professional knowledge. For example, the British government established an Olympic Committee to coordinate the actions of various local stakeholders involved in the London 2012 Olympic Games (Theodoraki, 2007). In addition, Parent (2016) finds that the Olympic Games in Canada were also consistent with metagovernance, which is an approach to enhancing coordinated governance based on a high degree of self-governance and the autonomy of multiple institutions, which focuses on “hands-off”, with administrators indirectly guiding the behavior of the various participants by setting rules, frameworks, and visions, rather than directly ordering them (Sørensen, 2006). In the governance of the Olympic Games, the IOC can be the meta-administrator, setting the Olympic Charter, signing the Host City Contract, venue construction standards, etc., and guiding other stakeholders to work together towards a common vision.

Scholars have analyzed the Olympic Games from different perspectives, and it is reasonable and practicable to analyze the Olympic Games through these theories of

governance, which can sort out the complexities of the Games, and also involve the coordination of different stakeholders, for the common purpose of achieving a smooth and successful legacy of the Olympic Games. However, this paper will use the MLG framework for its analysis. Collaborative governance focuses on equal consultation with other stakeholders and weakens the hierarchy in the Olympic system. However, the process will take a long time, solutions may not be reached and the relevant government bodies may not be able to implement the agreed solutions (Mukhlis & Perdana, 2022). Baker (2015) argues that metagovernance can be an alternative to MLG in terms of how policy is achieved through complex networks. In contrast, MLG limits the capacity of the state in governance, whereas Metagovernance asserts that the state has the capacity and power to shape and coordinate the behavior of network participants by placing policy instruments to integrate the whole situation. However, Metagovernance focuses too much on the centralized deployment of power in governance and relies too much on local autonomy, with characteristics of fragmented institutional design, distorted local strategies, micromanagement, and a lack of trust in central-local relations, which can seriously limit local capacity to achieve economic development (Newman et al., 2023). The MLG emphases the autonomy of each governance level while preserving the dominant position of the top-level administrator in policy-making and direction setting. This structure helps to balance the need for local flexibility with the requirement for overall strategic coherence and avoids the risk of policy implementation failures due to fragmented power. Besides, multijurisdictional governance is more like Type I in MLG by definition, which lacks the flexibility of coordinated actors, and I will explain the definition and types of MLG below.

Based on the consideration of the above theoretical shortcomings, this paper will adopt the MLG framework to analyze the achievement of sustainable development in the case of the Paris Olympics. MLG has the unique advantage of being able to reveal the complex relationships between different levels from vertical to horizontal aspect. It is particularly suitable for the actual operation logic of the Olympics, a typical sports

mega-event, involving cross-border, multi-government, and multi-stakeholder participation.

1.3.2 MLG Theoretical Framework

Economic activity has long been distinguished by significant imbalances across the globe. Even within the EU, there are significant differences in wealth levels, population density, economic activity, and economic structure. Cohesion policy, or European Union regional and urban development policy, aims to narrow the gap between rich and poor among European countries and to address social and economic inequalities in the EU, which has long been an important pillar of the EU (Fratesi & Wishlade, 2017). The 1986 Single European Act (SEA) elevated regional policy to a community-level function, aiming to achieve economic and social cohesion. In order to fulfill this goal, Structural Funds were established as one of the main instruments. In 1988, the Structural Funds were further reformed with the purpose of increasing the efficiency of regional policies, in which the principle of partnership calls for greater collaboration between different regions, including national, regional and/or local, as well as supranational (EU Commission) participants (Bache, 2012). In 1993, *The Maastricht Treaty* introduced the Cohesion Fund, which also added the principle of subsidiarity, and expanded the partnership to include economic and social partners. As European integration grows, the complexity of governance is increasing and the previously dominant theories of neo-functionalism and intergovernmentalism are unable to analyze European governance from a dynamic perspective (Hooghe & Marks, 2019). In 1993, Marks developed the MLG perspective, which was a response to previously dominant theories that neither of the two theories had been able to adequately capture the decision-making process in the EU (Klein & Xhaferi, 2024). Under the new context, it is necessary to promote coordination between governmental and non-governmental actors through flexible arrangements, shifting the focus from nation-states to a diverse range of actors involved. Multi-level governance was introduced into the EU governance structure to understand the three-tiered EU polity, the interaction between the member states, supranational institutions (e.g. the European

Commission), and sub-national governments (e.g. regional governments) (Schakel, 2020).

Gary Marks (1993) first proposed Multi-Level Governance (MLG) to explain the devolution of power that has occurred in the process of European integration, mainly in the areas of EU policy-making and political research. He states that MLG is a system of continuous negotiation between governments embedded in multiple territorial levels (Marks, 1993). This definition highlights the dynamic and multi-level features of the MLG. The traditional model of state-centered rule breaks down and power is vertically dispersed between different levels while interacting horizontally with other actors at the same level (Marks, 1993). Piattoni (2010) describes MLG as a term for the simultaneous activation of governmental and non-governmental actors in various jurisdictions. These definitions point to the fact that the concept of MLG contains both vertical and horizontal dimensions. “Multi-level” refers to an increase in vertical interdependence of actors operating in different territories, while “governance” indicates an increase in horizontal interdependence between governmental and non-governmental actors (Bache & Flinders, 2004). MLG represents a shift from “government” to “governance”, from a traditional single-center control to multi-actor collaboration, which means that MLG is not only a reallocation of power, but also a change in the way policies are designed and implemented (Bache & Flinders, 2004; Piattoni, 2010).

Piattoni (2009) argues that MLG questions three central analytical divisions in the traditional theory of the modern European state: between the center and the edges (the devolution of power in various levels); between state and society (multiple actors involved in governance); and between domestic and international (cross-level coordination and consultation required). Each division can be discussed with three aspects: political mobilization (politics), policy-making (policy), and polity restructuring (polity) (Piattoni, 2009; Ongaro, 2015). This reflects a redistribution of power across different levels, where actors from various levels and sectors participate in the political process and policy-making through negotiation and cooperation, reshaping traditional

state structures and forming a multi-level governance system.

Hooghe and Marks (2001) distinguish between two types of MLG. Type I governance is based on a fixed hierarchy of government with clear boundaries, characterized by embedded structure and a limited number of jurisdictions (Hooghe & Marks, 2001). The power and influence of governance is shared among the jurisdictions at each level. However, the state remains in a central role, and these levels of governance remain dependent on the governance and the institutional design of the national level (Bulkeley et al., 2003). As the main body of domestic and international governance, the important position of nation-states will never be replaced, and other actors can serve as supplements to governance with nation-states (Keohane & Nye, 2000). Type II governance is characterized by functional, flexible, task-specific, and overlapping jurisdictions that establish cross-area, multi-level governance networks in response to specific problems and are intended to deal with changing citizen preferences and functional requirements (Hooghe & Marks, 2001). This type of MLG always happens in the relationship between public and private, national and international, local governments, and community associations. Due to the new jurisdiction always generated by the citizen's problems, there is no limit in number and scale in Type II, compared to Type I, which can extend the use of MLG to global affairs (Hooghe & Marks, 2001).

In terms of the applicability of MLG in the global range, Rennstich (2017) suggests that although MLG is primarily centered around EU-related research topics, it also shows strengths in understanding and adapting to the fields of International Relations (IR) and Comparative Politics, and is attractive for IR scholars to adopt in explaining and analyzing global governance issues. Methodologically, the MLG framework is attractive because of its interdisciplinary nature, which is able to link centralized state or government governance models to decentralized organizations and to capture the dynamics of structure and governance across different actors. However, regardless of these advantages, MLG is generally not sufficiently explored as a common research framework in the field of IR theory (Rennstich, 2017). According to Zürn (2012), the

scope of MLG should be extended to the global level and needs to fulfill two conditions: global institutions have autonomy and do not only serve as coordinating platforms for intergovernmental negotiations; global governance needs to be embedded in a network of multilevel interactions and not be independent of other governance dimensions. Hensengerth (2015) explores the use of MLG outside the EU, analyzing China's Hydropower Policy with MLG, finding that in order to reach the achievements of MLG in other cultural contexts, it needs to move away from the idea of a pre-given scale as the center and to consider the local governance and scale situation. Daniell and Kay (2017) try to use MLG in Australia and prove that MLG has high adaptability. Those studies expand the theoretical depth and application breadth of MLG, beyond the roots of EU policies and the range of the thematic areas it covers.

In addition, MLG continues to be an important way of governance for the EU, and scholars have also extended the application of MLG to various other EU policy areas, especially regarding energy and climate objectives. The point of “achieving EU climate and energy goals will not happen without multilevel governance” was proposed at the high-level closing event of the NECPlatform project (Covenant of Mayors, 2025). Bulkeley and Betsill (2005) reveal that multi-level collaboration in urban climate protection challenges the traditional environmental politics between local, national, and international. Concerning energy, COOPENERGY is a European project that aims to develop more collaborative sustainable energy action plans by connecting regional and local governments through a multilevel governance model (European Commission, 2015). The President of the European Commission and COOPENERGY partners in 2015 confirmed the importance of MLG's approach to sustainable energy action (Coopenergy Consortium, 2015). The MLG was included in *The Committee of the Regions’ White Paper on Multilevel Governance* (Committee of the Regions [CoR], 2009) which shows the commitment to "Build Europe in partnership", aiming to boost involvement in the European process and enhancing the effectiveness of Community action. The White Paper recognizes MLG as a dynamic process that includes horizontal and vertical aspects that in no way reduce responsibility for politics, indicating the

great role of MLG in the EU (CoR, 2009). Besides, the Covenant of Mayors provides a multi-level platform for the EU member states, which is at the heart of MLG, promoting collaboration from local to national levels to achieve low-carbon, resilient, and inclusive development. The Organization for Economic Co-operation and Development (OECD) supports MLG positively for “effective decentralization and regionalization reforms, as well as the strategic planning, implementation, and performance measurement of regional policies at all levels of government” (OECD, n. d.). The OECD believes that in order to realize a successful MLG, it requires an integrated approach, good coordination, and an understanding of the complements and trade-offs between policies; thus, this enhances policy effectiveness, citizen satisfaction, and the quality of democracy (OECD, n. d.). It also proves that multilevel governance is internationally recognized as important for promoting international economy and cooperation.

Theoretically, MLG challenges the traditional sovereign state-centrism, emphasizes the key role of non-state actors in the governance process, and complements the single perspective of established international relations and governance theories. As an analytical tool, MLG is able to dynamically reveal the interaction mechanism between multiple levels of actors, and is widely applicable to a variety of policy areas such as environmental policy, regional development, climate, and energy, etc., demonstrating a strong interdisciplinary integration capacity. Also, as mentioned above, MLG is complementary to other governance theories, providing a more three-dimensional and comprehensive analytical framework from vertical and horizontal aspects that highlights the diversity, complexity, and dynamism of the governance process. Practically, the MLG enables governments and non-government actors at all levels to respond flexibly to the specific needs of the region, thereby improving governance efficiency, strengthening cross-level coordination and cooperation, and optimizing the allocation of resources and the combination of policy tools. As an important practitioner of the MLG model, the EU's governance experience provides an important example of a useful paradigm for other regional organizations and even for global governance.

Ongaro (2015) mentions that the MLG is a little “soft” and always very loosely explains the governance of complex polities, and has been criticized for being too descriptive rather than explanatory. Piattoni (2009) and Rennstich (2017) all indicate that MLG can be used in explaining various practices, and it may be “over-stretched” (Sartori, 1970). Besides, the bigger range of political participation for more actors may bring complexity to the structure, and it is difficult to attribute responsibility with greater precision. Especially in the Type II MLG with the feature of task-specific, this type always attributes tasks to these specialists who have the professional techniques and knowledge to solve them, then gaining efficiency. However, Peters and Pierre (2004) point out that this can form a “Faustian Bargain”, trading democratic legitimacy for governance efficiency, and finally, leading to an inherent contradiction in governance legitimacy. Papadopoulos (2010) and Olsson (2003) also indicate the paradoxes between democracy and accountability in MLG that, larger participation leads to a bigger democracy and weaker accountability; and the efforts for enhancing transparency and efficiency may undermine the traditional democratic mechanisms (electoral representation).

1.3.2.1 The Adaptability of MLG Framework to Paris 2024

As a typical global governance practice, the Olympic Games naturally form a complex network of multi-level and multi-actor interactions involving international organizations, national governments, local authorities, non-state actors, etc. The MLG is an effective tool to address cross-level issues such as sustainable development. As the first Summer Olympic Games to be fully in line with the *Olympic Agenda 2020*, the Paris Games can be adapted and interpreted within the framework of the MLG. Besides, the adaptability of the MLG is also reflected in its high degree of compatibility with France's institutional background and governance tradition. As a crucial member of the EU, France has long been at the center of the EU's multilevel governance structure, and its policy system has long been deeply embedded in the EU-style “cross-level coordination” governance model. This institutional habituation makes it natural to follow a similar logic of MLG when hosting the Olympic Games, providing an

interpretative path for understanding the governance of the Paris Olympics in a local context.

In terms of structure, the governance practices of the Paris Olympics show the co-existence of Type I and Type II: from the IOC to the EU, the French State, and then to the city of Paris and local authorities, this is a typical vertical system of top-down institutional embedding (Type I); while on multiple specific topics, such as carbon neutrality, green transportation, and reuse of venues, etc., multiple actors coordinated and cooperated, and for the realization of the whole organization of the event, the emergence of SOLIDEO can reflect the task-oriented MLG of Type II. Besides, the IOC can fulfill the two conditions of MLG global governance proposed by Zürn (2012).

1.3.2.2 The Adaptability of MLG Framework to Sustainability

MLG and Sustainability are mutually supporting and naturally compatible. Firstly, the complexity and cross-boundary nature of sustainability issues, such as climate change, and resource allocation, determine that they cannot be addressed by a single tier or a single subject, and MLG can respond to the complexity of sustainability. Secondly, sustainability issues are long-term, uncertain, and non-authoritative, for instance, climate change has been described as a “super wicked problem” by Levin et al. (2012) that was hard to handle by the traditional structure, which needs a more flexible and dynamic governance (Rhodes et al. 2022). MLG is highly flexible and adaptive and is suitable for dynamically changing situations, which can respond to these problems during sustainable development. This multi-level network facilitates policy piloting, adaptation, and innovation, and is better able to deal with the complex and shifting issues of sustainable development. Thirdly, MLG can provide a mechanism to guarantee policy integration and vertical and horizontal synergy for sustainability. According to Poyraz and Szalmáné Csete (2023), successful sustainability shift and climate action need a cohesive strategy and cooperative circumstances across many levels of government. The Rio 2012 Issues (United Nations Department of Economic and Social Affairs [UN DESA], 2015) also emphasizes the horizontal integration

involving combining economic, social, and environmental factors across different sectors and policy areas, and the vertical integration involving dense governance links between all levels. This reflects the institutional strengths of MLG in vertical and horizontal integration mechanisms.

1.4 Filling the Gap: Combining Sports, Sustainability, and Multi-Level Governance

The previous section describes the relationship between MLG, the Paris Olympics, and sustainability, which are mutually recognizable and can be presented as a method for achieving sustainable development of a sports mega-event ideally, using the MLG framework. Sustainability is an important task for humanity to live in harmony with nature today. Since the 20th century, the international community has put forward the MDGs and SDGs for sustainable development, calling on governments, the public, and non-governmental organizations to pursue sustainable development. Among them, sports events with great influence are also important subjects that are recognized by the UN, and sustainable development is also written into the *Olympic Agenda 2020*, focusing on the integration with sustainable development before, during, and after the Olympic Games. Most of the studies on the governance of sustainability in sports events have emphasized network coordination among various stakeholders from the perspective of participating interest players, avoiding hierarchical features, such as collaborative governance, but lacked studies from the perspective of governance structure and power operation mechanism. Meanwhile, MLG, as an important theoretical framework for understanding the contemporary governance landscape in IR, has been widely used in the fields of European governance, climate and energy policy, and development studies. The framework emphasizes the interaction and negotiation between different levels (international, national, local) and multiple actors (government, market, and social organizations) in the process of governance, both vertically and horizontally. The characteristics of MLG can respond

to the Olympics and sustainability that both also have complex structures full of dynamics and multiple participating actors. However, in the context of global governance and the study of sports mega-events, the theory is still in the early stages of application and lacks an in-depth exploration of its adaptability and explanatory power.

Under this context, this study attempts to fill the intersection gap between the three fields and proposes a way to analyze the sustainable development practices of sports mega-events by introducing a multilevel governance perspective. The Paris 2024 Olympic Games constitute a typical case of the deep integration of “sport, sustainable development, and multi-level governance”. Starting from different levels, from international, regional, national to local, and other organizations at horizontal levels, this paper examines their dynamic division of roles, policy collaboration, and distribution of power in the sustainability governance of the Olympics, and explores how they can co-construct pathways to the realization of the Sustainable Development Goals (SDGs).

Theoretically, this thesis is an interdisciplinary study constructed through a multi-level governance perspective. The study theoretically and interdisciplinarily links sports mega-events, sustainability, and governance theory. By introducing MLG, a widely used analytical tool in policy science and international relations theory, this thesis provides a systematic approach to understanding the sustainability governance mechanisms of the Olympic Games. The MLG theory has been mainly applied in EU policy research, but its applicability to international mega-events (e.g., the Olympic Games) has not yet been fully explored. This thesis not only enriches the dimension of governance in sports studies, but also takes MLG beyond the European Union, expands the applicability of MLG theory, and provides new theoretical perspectives for understanding complex power structures in contemporary global issues.

By studying the Paris 2024 Olympic Games, this thesis fills a gap in the academic research on governance structures at the practical and operational level of sustainable development at international mega-events. The specificity of the Paris Olympics makes

its study all the more necessary. In the Paris Olympics, the IOC, the French national institutions, the local authorities of Paris, private companies, and social organizations all played an integral role in the governance structure. This perspective not only helps to comprehend the governance dynamics, synergies, and constraints of Olympic governance in this case but also to understand the actual implementation of the Olympic Agenda 2020 and the SDGs.

In addition, the findings of this thesis provide lessons and reflections that can be applied to the sustainable governance of future international mega-events. The Paris Olympics demonstrated a relatively forefront paradigm of cross-level governance, providing a realistic template for other countries and international organizations to implement the SDGs. This is not only instructive for the future reform of the Olympic Movement and the organization of other international mega-events but also provides a reference for other global issues that involve complex governance structures.

.

2 Research Methodology

2.1 Case Study Approach

This study adopts the case study method as the overall research strategy and selects the Paris 2024 Olympic Games as the core research object to analyze its sustainable development practices under the multi-layer governance structure and use the model of Müller et al. (2021) to evaluate the results of the sustainability of the Paris Olympics.

According to Yin's (2009), this research method needs multiple sources of evidence and data that can be used as a verification of triangulation. To realize the case study scientifically, this research combines qualitative analysis with quantitative analysis, the multiple evidence including policy and official documents, basic descriptive statistics, and media discourse, with a goal of a multidimensional understanding of system structure, policy implementation, and external reactions. The use of multiple sources enables triangulation, enhances the reliability of the analysis, and strengthens the breadth and depth of the case studies while meeting the need for cross-methodological research in the current trend in the field of international relations (Flick et al, 2004).

Case study research is most frequently applied to social science research and is frequently characterized as a flexible but complicated methodology (Cope, 2015). The classic definition from Yin (2009) for the case study is “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not evident”. Jacobsen (2002) states that a case study is a type of intensive study of numerous units with a variety of variables, aiming to make the context, phenomenon, or event as detailed as possible. The uniqueness of the Paris Olympics and the reasons for choosing it have been shown above. Therefore, the case study method that mainly focuses on the specific situation can be used in this thesis to analyze the Paris Olympics 2024 through its complicated governance structure with many actors and the process of coordination and contradictions.

2.1.1 Evaluation Model

The IOC launched the Olympic Games Impact (OGI) approach to objectively assess the possible impacts of the Olympic and Paralympic Games on the socio-cultural, economic, and environmental aspects, including 126 indicators (OGI-UBC Research Team, 2013). According to Trendafilova et al. (2022), the OGI is criticized by many scholars since it is too short to conclude the long-term influence and only depends on the quantitative analysis, resulting in its failure to evaluate the Olympics' sustainability. This approach has been abandoned in 2017 (Müller et al., 2021).

Müller et al. (2021) created a model to evaluate the sustainability of the Olympic Games based on the data from 16 editions of the Olympic Games from 1992 to 2020, indicating the Olympics' overall sustainability decreased over time, which focuses on three typical dimensions: ecological, economic, and social, each dimension with three indicators. Following the sustainability theory, they define the real sustainable Olympic Games with three aspects: "having a limited ecological and material footprint, enhancing social justice, and demonstrating economic efficiency" (Müller et al., 2021). This evaluation of the model can reach a balance between the development needs of economic, social, and ecological dimensions. Table 4 presents the sustainability dimensions, indicators, and scoring criteria of Müller and other scholars (2021).

Table 4: Indicators and scoring criteria (Müller et al., 2021).

Dimensions	Indicators	Proxy	Units	Scoring criteria
Ecological	New Construction	Share of new competition venues	Share of new-build sports venues among total number of sports venues	100 if ≤ 10%; 80 if ≤ 20%; 60 if ≤ 30%; 40 if ≤ 40%, 20 if ≤ 50%, 0 if > 50%
	Visitor Footprint	Number of tickets sold	tickets	Summer: 100 if ≤ 3m; 80 if ≤ 4m; 60 if ≤ 5m; 40 if ≤ 6m; 20 if ≤ 7m; 0 if > 7m. Winter: 100 if ≤ 1m; 80 if ≤ 1.2; 60 if ≤ 1.4; 40 if ≤ 1.6m; 20 if ≤ 1.8m; 0 if > 1.8m
	Event Size	Number of accreditations	persons	Summer: 100 if ≤ 150k;, 80 if ≤ 200k; 60 if ≤ 250k; 40 if ≤ 300k; 20 if ≤ 350k; 0 if > 350k. Winter: 100 if ≤ 40k; 80 if ≤ 60k; 60 if ≤ 80k; 40 if ≤ 100k; 20 if ≤ 120k; 0 if > 120k
Social	Public Approval	Public approval of event	Share of respondents in polls that supports hosting the event	100 if ≥ 90%; 80 if ≥ 80%; 60 if ≥ 70%; 40 if ≥ 60%; 20 if ≥ 50%; 0 if < 50%
	Social Safety	Displacement of population	Number of people directly displaced by the preparation for the event	100 if no displacement or relocation; 80 if temporary displacement (often homeless people during the Games); 60 if permanent displacement of less than 100; 40 if permanent displacement of more than 100 but less than 500 people; 20 if permanent displacement of more than 500 but less than 1000 people; 0 if permanent displacement of more than 1,000 people

	Rule of Law	Infringement or curtailing of rights	Extent and severity of changes in the legislation due to the event	100 if no change or inconsequential changes that do not benefit event owner; 80 if minor, event-related changes that do not infringe human rights and freedoms but benefit event owner (e.g. tax exemptions, immigration facilitation); 60 if one minor, event-related change that also infringes human rights and freedoms (e.g. limiting free speech in a circumscribed way); 40 if several minor, event-related changes that also infringe human rights and freedoms; 20 if one major change in at least one legal code that infringes significantly human rights and freedoms (e.g. facilitation of expropriation); 0 if several major changes in multiple legal codes that infringe significantly human rights and freedoms
Economic	Budget Balance		% of bid budget	100 if ≤ 10%; 80 if ≤ 20%; 60 if ≤ 40%; 40 if ≤ 60%, 20 if ≤ 80%, 0 if > 80%
	Financial Exposure		% of final sports-related costs	100 if ≤ 15%; 80 if ≤ 30%; 60 if ≤ 45%; 40 if ≤ 60%, 20 if ≤ 75%, 0 if > 75%
	Long-term Viability		number of venues with high degree of capacity utilisation after the event, out of a basket of 6 venues	100 if all venues used with high degree of capacity utilisation 80 if 5 out of 6 venues used with high degree of capacity utilisation 60 if at least 4 out of 6 venues used with high degree of capacity utilisation; 40 if at least 3 out of 6 venues used with high degree of capacity utilisation; 20 if at least 2 out 6 venues used with high degree of capacity utilisation; 0 if 1 or 0 out of 6 venues used with high degree of capacity utilisation All temporary venues that are dismantled after the event are counted as long-term viable. Retrofitting and remodelling are permitted. The score is based on after-use as of end of 2019.

(Continued)

Therefore, in the following evaluation chapter, this model will be employed to examine the sustainability of the Paris Olympics. Yet, Müller et al. (2021) also indicated that the workload was very large and was difficult to gather all data easily, so this thesis, relying solely on my research, will primarily use official policy documents and reports to assess the sustainability of this case, accompanied with data comparison to prior Olympic Games, and media attitudes to evaluate the social and public satisfaction. Although this study focuses on the Paris Olympics and the literature review concentrates on research on Olympic governance and sustainability, some of the sustainability data does not make a clear distinction between the Olympic and Paralympic Games at the official level. Therefore, the data used in the subsequent analysis may also cover Paralympic content.

2.1.2 Data Sources

The analysis of official policies and documents is used to sort out the policy objectives, institutional arrangements, and practices for sustainable realization at the international (IOC), supranational (EU), national (France), and local (City of Paris and other local authorities) levels. According to Bowen (2009), document analysis has the advantages of high efficiency, easy availability, cost-effectiveness, long-term stability, and accuracy, resulting in its normativity, objectivity, and verifiability, which contribute to a precise understanding of all actors' official positions and goals on sustainable development issues. This study selects official documents and policy texts issued by the IOC, the Paris Organizing Committee, the French government, as well as the city of Paris and local authorities, which have a high degree of credibility and formality to analyze the multilevel governance mechanisms of the Olympic Games from vertical and horizontal perspectives. Secondly, descriptive statistics are used to organize the raw data, develop particular indices from it, and make conclusions (Kothari, 2004). This thesis selects key sustainability data from official reports and news for descriptive statistical analysis and rates every indicator in the model, such as carbon footprint, venue construction, budget, etc., and compares with previous Olympic Games, showcasing the relative performance and evolutionary trends of the Paris Olympics in

terms of sustainability.

2.2 Limitations

However, it has to be noted that this research methodology has some limitations. Official documents and reports can reflect the power discourse and narrative of institutions, showing some positions (Freeman & Maybin, 2011). Due to time constraints and difficulty in reaching interviewees, the originally planned semi-structured interviews could not be conducted, resulting in a lack of an in-depth understanding of the difficulties of practical implementation or public reaction. Besides, as mentioned earlier, the difficulty in collecting data and the lack of more complicated measurement models, also limit the explanatory and extrapolation persuasion of findings. Then, this study focuses on the single case of the Paris 2024 Olympic Games. Although the EU is representative of MLG and has a history of application of MLG, its experience may not be applicable to other sports mega-events in other political, cultural, or institutional contexts. However, these limitations can broaden the boundaries of relevant research and provide suggestions for future studies.

3. Analysis of MLG Practices in the Paris 2024 Olympics

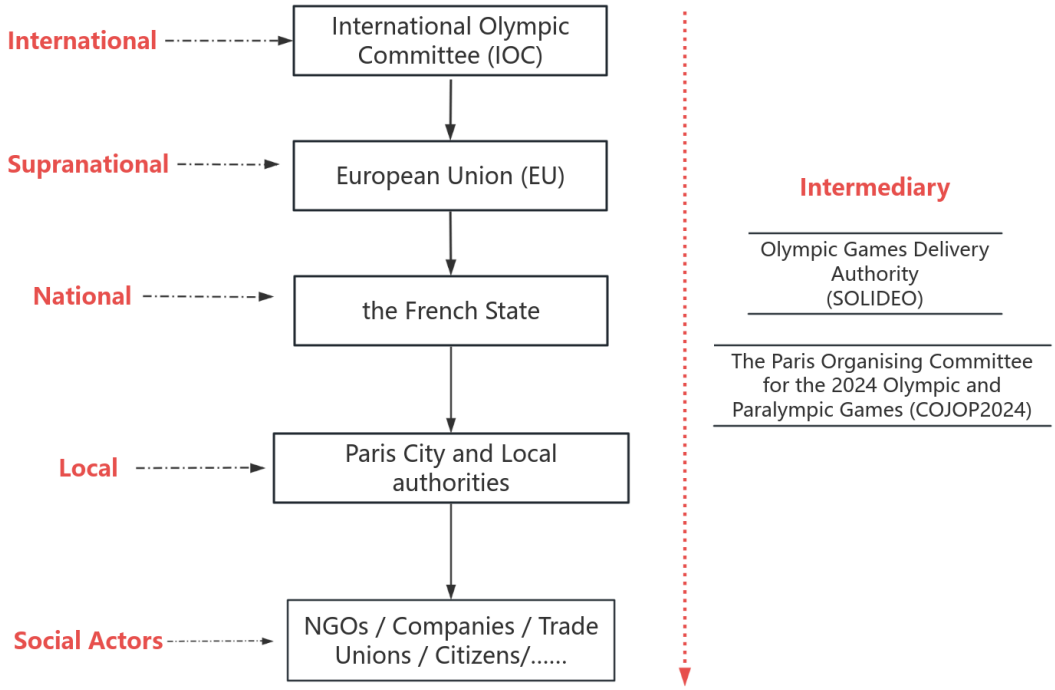
The governance of the Paris Olympics demonstrates obvious features of Type I and Type II MLG. On the one hand, it shows an embedded, hierarchical logic of vertical governance through formal intergovernmental structure and institutional transmission; on the other hand, resources, and capacities at the implementation level are complemented by horizontal flexible cooperation mechanisms at various levels (Hooghe & Marks, 2001). However, it is impossible to determine a simple equation of Type I with vertical governance and Type II with horizontal interaction. Paris 2024 Legacy and Sustainability strategy needs this Games to be aligned with international vision, with the Olympic Agenda, as well as with the national and local plan (Organising Committee for the Olympic and Paralympic Games Paris 2024 [COJOP], 2021a). In the following analysis, this chapter explores the dynamic relationships of collaboration and tension across different levels and actors from two analytical perspectives: Vertical Governance and Horizontal Coordination.

3.1 Vertical Practices: Cross-Level Interaction

From a vertical governance perspective, the actors involved in the Paris 2024 Games cross several territorial levels, from the international to the local, ranging from institutions with formal authority to organizations empowered through contracts or cooperative arrangements. Together they form a multi-level system of decision-making and implementation, with different levels of governance interacting to shape the organization and delivery of the Games. The Paris 2024 includes the IOC at the international level, the EU at the supranational level, the French State and its NOCs (the French National Olympic and Sports Committee, CNOSF; the French Paralympic and Sports Committee, CPSF) at the national level, Paris and other cities councils at the local and regional level, and social actors at the social level. Besides, the Paris 2024 Games are coordinated and implemented by two key organizations: the Paris 2024 Organizing Committee (COJOP) and the Société de Livraison des Ouvrages Olympiques (SOLIDEO). These two authorized agencies bring together representatives from various

levels (national, regional, and local) and play an intermediary role in the system. Although the governance system of the Olympic Games is vertically layered from international to national to local, it is not a completely linear and hierarchical pattern. As intermediary organizations, COJOP and SOLIDEO, across multiple levels, play an important role in the process of organization and implementation of the Games, making the vertical governance more collaborative.

Figure 1: Vertical Governance Structure in the Paris 2024 Olympics.



Source: references from Daniau-Fricotteau, B. (2024). Paris 2024 Olympics: A complex governance shared between many stakeholders. Bocconi Students for Sport Management. https://bssportmanagement.com/2024/11/17/paris-2024-olympics-a-complex-governance-shared-between-many-stakeholders/

At the international level, the IOC, as the supreme authority of the Olympic Movement, sets the basic norms and strategic direction for the organization of the Olympic Games. IOC manages the Olympic Movement through the usage, modification, and maintenance of the *Olympic Charter* (IOC, 2025). This document is described as "a basic instrument of a constitutional nature" and "serves as statutes" for IOC, with

obvious legal authority. The charter regulates the mission of the IOC to focus responsible attention on environmental problems and promote sustainability in sports and requires the Games held in line with it (IOC, 2025). Besides, the charter regulates the Olympic Host Contract as well, which is agreed upon by the IOC, the host, and the NOC of the host, and, the contract contains the requirement of sustainability and legacy in the hosting process (IOC, 2017b; IOC, 2025).

To realize the sustainable development of the Olympic Movements, based on the *Olympic Charter*, the IOC carried out reforms through the *Olympic Agenda 2020* in 2014, the *New Norm* in 2018, and the *Olympic Agenda 2020+5* in 2021, making the Paris 2024 as the "greenest" Olympics so far and as a practice of sustainable vision. "Sustainability" serves as one essential pillar of the 2020 Agenda, and has been inserted in all aspects of the games and daily operations (IOC, 2014). Based on the 2020 Agenda, the IOC sets its Sustainability Strategy that focuses on five areas: infrastructure and natural sites, sourcing and resource management, mobility, workforce, and climate (IOC, 2017a). As further concrete actions of the *Olympic Agenda 2020*, the *New Norm* involves 118 reforms related to candidature, legacy, and delivery, aiming to simplify the application process and operational requirements, integrate legacy plans into all phases of the Games, and make the delivery more flexible and cost-efficient (IOC, 2018a). With the slogan "change or be changed", the Olympic Agenda 2020+5 was launched in line with the need to deal with the COVID-19 challenges after 2020. The document specifically calls for a shift to a "climate positive" model for the Olympic Games by 2030, advocating the efforts in the use of temporary venues, decentralized hosting, and long-term sustainability (IOC, 2021b).

The Olympic Agenda 2020, The New Norm, and Olympic Agenda 2020+5 share a common vision of promoting more sustainable, cost-efficient, and legacy-driven Olympic Games. Paris 2024 is the first Olympic Games to be fully guided by this reformed framework. According to COJOP (2021b), the Paris Olympics is based on the Olympic Agenda 2020+5 framework, and its legacy is also rooted in the IOC's Legacy Strategy Approach, focusing on "delivering games that can be held up as an inspiring

example” and “leaving a social and environmental legacy”. For example, the Paris Olympics sets a carbon budget of 50% of that of previous Olympics and uses 95% of existing or temporary venues (COJOP, 2021b).

At the supranational level, the EU has promoted the development of member states in the area of green transformation and social responsibility through policy guidance and financial instruments. The EU is not a direct organizer of the Paris Olympics, but it is indirectly involved in the green transition process of the Paris Olympics through its legislative framework and funding mechanisms. In order to deal with new challenges nowadays, the EU adopted the European Green Deal (European Commission, 2019) that aims to be the “first climate-neutral continent” by 2050 in line with the Paris Agreement, and its key initiatives, such as “Fit for 55” package, REPowerEU, etc., all which have influenced France's national policy direction, setting the environmental standards for the bidding process, preparation, and organization of the Games. For example, the Paris 2024 highlights the use of responsible materials for construction and renewable energy, and manages the carbon emission, following strictly the sustainability goals (COJOP, 2021b).

In addition, the EU has provided financial support for the Paris Olympics in various aspects, for instance, between 2019 and 2022, the European Social Fund (ESF) invested about 770,000 euros in professional programs for the Games, and the treatment of sewage from the Seine has also received investment from the European Investment Bank (EIB) (European Social Fund Plus, 2024; EIB, 2020). The European Commission also helps to propose the Paris Social Charter, aiming to promote local employment in hosting areas (COJOP, 2021b).

In response to the European Green Deal, France adopts Climate and resilience law (République Française, 2021), with the main objective of meeting the EU goal of reducing greenhouse gas emissions by at least 55% by 2030, indirectly influencing the organization of the Olympics. As the national level actor, the French State undertakes resource allocation and guarantees policy implementation, providing great support in various aspects for the Games to achieve sustainable goals. To guarantee the success

of the Paris 2024 Olympics, the French State adopted Law No. 2023-380 as a comprehensive legal framework, covering a wide range of areas such as medical training, anti-doping measures, security, labor regulations, advertising, etc. (Loi n° 2023-380 du 19 mai 2023, 2023). Especially in terms of security, the Ministry of the Interior and Overseas France increases daily security to prevent the increasingly serious jihadist terrorist activities in Europe, enhancing social sustainability (Ministère de l'Intérieur, 2024). Besides, the French State plans a budget of 20 million euros for the upgrading of facilities for the “Terre de Jeux” program and also invests millions of euros in companies for more innovative techniques used in the Games (COJOP, 2021b).

The efforts at the local and regional level are made by the City of Paris, the Île-de-France Region, the Grand Paris metropolitan area, and the Seine-Seine-Denis departmental council, including 73 host towns and cities (Gouvernement de la République Française, 2021). They are responsible for implementing specific policies and services and involving more people in sports. These local authorities consider the Olympics leverage for the integration and development of the Grande Paris region, for example, promoting the urban infrastructure construction, such as 60 kilometers of new bike lanes in the city, extending the Grand Paris Express (GPE) to connect the Grand Paris area, and encouraging grassroots sports endeavors for social tolerance (Geffroy et al., 2021; Goonan, 2024). As the City of Paris cannot house the Olympic venues and the long-term Olympic legacy, Plaine Commune was chosen by the bid team of the city to take the mission to set the public infrastructure and Olympic Village, promoting the local economic growth and the integration of Grand Paris (Geffroy et al., 2021). Under this decision, this area plays a core role in Olympic projects, and local authorities participate in governance positively (Gignon, 2023).

Although international and national institutions such as the IOC or French ministries may define overarching goals and frameworks, it often needs social actors to translate these goals into local and operational practices, advocating for more local citizens to join in, such as trade unions, NGOs, and community organizations. The Paris 2024 Social Charter commits to creating an inclusive employment environment and

business opportunities and improving vulnerable people's integration into the workforce, adopted by the Paris 2024 Committee, SOLIDEO, trade unions, and employer organizations (Paris 2024, 2018). The ESS program is a six-year project led by Les Canaux association and has matched the capabilities of more than 6,000 businesses and organizations to the Olympics and Paralympics organizers' needs, now as a social legacy of the Games, it still works on supporting the development of minor enterprises (Les Canaux, n.d.; OCED, 2024). Besides, the SOLIDEO encourages small and medium enterprises to join in public procurement and circular activities, reducing carbon emissions and social employment (Directorate-General for Employment, Social Affairs and Inclusion, 2024).

In the multi-level governance system of the Paris Olympics, the COJOP and SOLIDEO are important intermediaries between the international, national, and local levels, with the task-orientation feature of the MLG. The COJOP assumes the responsibility of organizing the Games' operations, and the SOLIDEO undertakes the core role of coordinating infrastructure projects.

According to the Olympic Charter (IOC, 2025), the Organizing Committees for the Olympic Games (OCOG), is authorized by the IOC and takes the responsibility of "plan, organize, finance and deliver the Paris 2024 Olympic and Paralympic games" in line with the Olympic Host Contract (Gouvernement de la République Française, 2024). The COJOP was established in 2018, and its Board of Directors includes all actors mentioned before from international to local and SOLIDEO, aiming to realize the first climate positive Olympic Games (COJOP, 2021b; COJOP, 2021c). COJOP issued the *Legacy and Sustainability Plan for the Paris 2024 Olympic and Paralympic Games* (COJOP, 2021b) and maps the IOC's sustainable goals to national and local policies.

SOLIDEO was established in 2017 and is responsible for supervising the construction and renovation of the Olympic facilities and the delivery of the long-term development projects for the Olympic legacy, based on an environmental excellence strategy that focuses on low-carbon, biodiversity, and urban comfort (SOLIDEO, 2019). For example, SOLIDEO encourages all contractors to join the circular economy of their projects and

uses alternative materials in the construction of Olympic villages, such as wood, low-carbon cement, and recycled materials (SOLIDEO, 2024). SOLIDEO has located the Olympic Village in the Plaine de Saint-Denis to stimulate economic transformation and promote the integration of the Grand Paris Region (Geffroy et al., 2021).

3.2 Horizontal Practices: Coordination at Each Level

According to Bache and Flinders (2004), the “governance” of MLG means the growth of horizontal interdependence between government and non-governmental participants. The actor-centered feature of MLG highlights a free way for both institutional and non-institutional actors to navigate and connect across different governance levels, beyond traditional areas of authority and hierarchical structures (Piattoni, 2009). Besides, horizontal coordination can avoid overlapping functions of various actors from different levels, matching the needs of governance with professional actors (Mulholland & Berger, 2017). Mulholland and Berger (2017) also indicate that horizontal integration is important to vertical integration, not only spanning different areas but also crossing multiple government levels. Therefore, from the horizontal view, these stakeholders coordinate and cooperate in this network connecting all levels and all areas. This flexible approach is particularly significant for sustainability governance.

As mentioned earlier, there is a tight connection between the IOC and the UN, with mutual recognition of each other's efforts. In COP24, Paris 2024 joined the “Sports for Climate Action Framework” led by UNFCCC to inspire more people to care about climate change, promoting the realization of the Paris Agreement (UNFCCC, 2018). The COJOP coordinates with the IOC, the International Organization for Standardization (ISO), and the OECD to set new standards for sustainable development and management (IOC, 2024a). The COJOP applies the new ISO 20121:2024 standard to insert sustainability into the whole Olympic period; the OECD also helps Paris 2024 to generate key performance indicators (KPIs) for evaluating the long-term effects and legacy of the Games (IOC, 2024a).

At the supranational level, to ensure security and social sustainability, France coordinates with other European countries under the framework of the Prüm Decisions with the objective of fostering cooperation between police and judicial authorities of EU countries to deal with terrorism and cross-border crime, including international mega-events (N'tsia, 2024). This security coordination reflects the complementary use of resources between European member states can reduce local government financial and human pressure and also reflects a balance between local responsibility and regional sharing, in line with the UN's sustainable development goal of partnership.

At the national level, the French State works with other stakeholders to implement practices in the local community. The Paris 2024 and the French National Sports Agency signed the agreement to award local authorities with Terre de Jeux 2024 label to promote sports facilities; the French Ministry of National Education, Youth and Sport, coordinates with the Greater Paris Regional Health Authority to award schools Génération 2024 label, encouraging local schools to provide sports opportunities for youth and vulnerable groups; besides, the Terrain d'égalité Label developed by the Paris 2024, the French Ministry for Gender Equality, Diversity and Equal Opportunities and the Ministry of Sports, promotes to build the highest guidelines for gender equality in sports (COJOP, 2021a; IOC, 2024b).

As an intermediary role and specialized agency, SOLIDEO provides a stage for various actors to coordinate and connect. According to the *SOLIDEO: Olympic Games delivery authority* (2019), the SOLIDEO has signed contracts with 29 public and private contractors and is responsible for the delivery and supervision of urban planning, public space and sports facilities and infrastructures, requiring to pass the information to its Board of Directors including cities of Paris, Marseille, Le Bourget, and Dugny, the Île-de-France Region, Plaine Commune, Paris Terres d'Envol, Seine-Saint-Denis, etc. Initially, the Seine-Saint-Denis area lacked sports facilities, but the coordination with SOLIDEO brings new aquatic centers, swimming pools, and renovated facilities, matching with the national level's effort, Terre de Jeux 2024 label, to promote sports

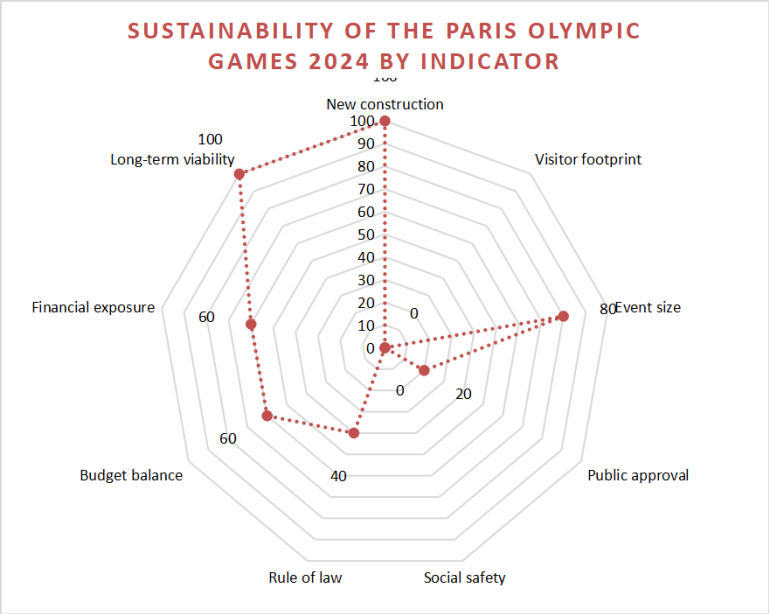
facilities in the whole country (COJOP, 2024a). Besides, the move of the shooting competition venue from the Terrain des Essences site was determined after the discussion by the COJOP, representatives of the state, and the SOLIDEO, which made it easy to find alternatives and use it as a chance to improve the venue map (Pavitt, 2022; COJOP, 2022).

As the main organizer of the Olympic Games, COJOP has assumed a key role in the transport sector, with responsibilities of developing an overall transportation strategy for the Games and coordinating with various actors, such as the City of Paris (urban management), police (security), Île-de-France Mobilités (IDFM, regional public transport authority), and transportation operators, to ensure the efficient, safe and eco-friendly operation of the transportation system during the event (Tauvel et al., 2024).

4. Evaluation of Sustainability of the Paris Olympics

In this section, the sustainability assessment model of the Olympic Games proposed by Müller et al. (2021) is used to systematically evaluate the sustainability of the Paris 2024 Olympic Games. The model covers nine indicators, integrating environmental, social, and economic dimensions. The sustainability of the Paris Olympics was quantitatively scored by collecting and analyzing data from multiple sources, including official reports, third-party studies, and media reports. Through analysis of information, the total score of Paris 2024 is 460 points which is relatively quite good among all Summer Olympics between 1990-2020 (Müller et al., 2021). Paris 2024 represents a significant step forward in realizing sustainable development within the context of mega-events, however, the reality of Paris 2024 is far from its sustainability communications and the Olympic Games still needs more time to achieve real sustainability.

Figure 2: Sustainability of the Paris Olympic Games 2024 by indicator.



4.1 Triple Bottom Line

Ecological Dimension

New construction. New construction is assessed by measuring the percentage of

newly constructed sports venues to all Games' sports venues (Müller et al., 2021). According to Müller and his colleagues (2021), and Trendafilova et al.'s (2022) evaluation of the Tokyo Olympics, the new construction indicator refers to new permanent venues. According to the sustainability and legacy post-game report of COJOP (2024), the Olympic Aquatic Centre is the only new competition venue built for the Games, and in total, 44 venues are used in the Games. The official report from COJOP (2025) mentions that the Paris Arena 2, named the Adidas Arena, especially for badminton and rhythmic gymnastics, is also a newly built venue but was built independently of the Games organization (COJOP, 2025). Thus, the new construction rate of 4.5%, meeting the score criteria of 100 with a percentage less than or equal to 10%. However, some media also indicate that the Le Bourget Climbing Centre is also the new-built venue for the Games (Comitato Olimpico Nazionale Italiano, 2024). Under this situation, the rate is 6.8%, also getting a score of 100. Besides, all official reports and official Olympic news often mention that 95% of facilities and infrastructures are temporary or existing sites (COJOP, 2024b; COJOP, 2021b; IOC, 2024). Therefore, the Paris 2024 Olympics gets the 100 score regarding this indicator.

Visitor footprint. The footprint of visitors was calculated based on the number of tickets sold (Müller et al., 2021). According to the report from COJOP (2024), 12.1 million tickets were sold, since the number is far more than 7 million, getting the score of 0. Although Paris 2024 makes many efforts to lower the carbon footprint by reducing the new constructions, using green materials, providing electric public transport systems, etc., the visitor footprint generated by business travel (transportation) from home to foreign countries, still accounts for the largest part of the Games' carbon footprint (IOC, 2018b).

Event size. Event size is estimated by the number of accredited participants in this event, including athletes, coaches, staff, representatives, people with Guest Pass, etc. (Müller et al., 2021; Trendafilova et al., 2022). The post-game report indicates that almost 200,000 people gained the accreditation of the Paris 2024, getting a score of 80 (COJOP, 2024b). Compared to previous editions, the scale of Paris 2024 has

decreased significantly and responded to the IOC's sustainable strategy.

The total score of Paris 2024 in ecological dimension is 180, with the new construction as the best aspect, and the visitor footprint as the worst one. Compared to previous Olympics, based on the score given by Müller et al. (2021), Paris 2024 is higher than Beijing 2008 (80), London 2012 (120), and Rio 2016 (100), except for Tokyo 2020. Tokyo 2020 was originally predicted by Müller et al. (2021) with a score of 280 and was assessed by Trendafilova and other scholars (2022) with 480 points based on the actual situation, as a result of limited visitor mobility caused by COVID-19. The visitor footprint is inevitable in the current sports mega-events concerned with huge population mobility and cross-border activities.

Social dimension

Public Approval. Public approval means the percentage of poll respondents favoring the event's hosting (Müller et al., 2021). According to Odoxa (2024), an independent inquiry, French enthusiasm for the Paris 2024 Olympics declined sharply between 2021 and 2024 from 76% to 65%, and only 56% of residents in Île-de-France had a positive attitude towards Paris 2024 Olympics. Because the Île-de-France residents are more related to the Games and are the most directly affected group, the rate of 56% is used to get a score of 20, less than 60%. The residents were concerned about security (73%), transport (81%), and whether the Games would deliver on time (71%) (Odoxa, 2024). This study highlights the gap and challenges of aligning local expectations with national and international ambitions within a multi-level governance structure in Paris 2024. The security, transport, and the Games delivery all need coordination between multiple levels and actors but still puts residents in trouble. Besides, the changes in residents' attitudes also reflect people's awareness of Olympic negative influences.

Social safety. The displacement of the population caused by hosting the Olympic Games shows the aspect of social safety (Müller et al., 2021). The report of Le Revers de la Médaille (2024) showcases the "social cleansing" made by the public authorities to evict marginal groups from 2023 to 2024, particularly in the lead-up to the opening

ceremony, highlighting an increase in eviction activities. Almost 20,000 people were displaced from tents and shelters in Paris, definitely getting 0 points (Nouvian, 2024). These evictions triggered strong criticism from human rights organizations and were considered a policy of "beautifying the city" by the Olympics at the expense of vulnerable groups. The social sustainability is insufficiently embedded in the current governance framework, which demonstrates the disconnect between top-level strategic objectives and local-level implementation, and the lack of accountability within multi-level governance. This also affects the subsequent score on the Rule of Law indicator.

Rule of Law. The score of this indicator depends on how legal changes for the Olympics may have infringed on people's rights and its severity (Müller et al., 2021). Except for the serious displacement mentioned before, article 10 of Law No. 2023-380 which was adopted by the French government, mentioned the use of intelligent video surveillance to detect "predefined events", as a preventive action against terrorist attacks (Buchanan, 2023). Buchanan (2023) also mentions that this law extends the coordination between the Paris Transport Authority (RATP) and the National Society of the French Railways (SNCF) agents. Although this measure aims to protect people and ensure the success of Paris 2024 and also represents the innovative advance in digital techniques of competitions and media, it also raises people's concerns about private data and violates the European Convention on Human Rights (ECHR) and the EU's General Data Protection Regulation (GDPR) (Mokuena, 2024; Koula, 2024). More than thirty civic society organizations had signed an open letter about the serious threat made by AI surveillance used in the Games (Stockhem, 2023). Because these measures are all temporary and limited, as minor legislative and administrative changes restricted basic rights and freedoms, Paris 2024 can be rated 40 on this indicator.

In terms of the social dimension of sustainability, the total score of Paris 2024 is 60, lower than any edition of the Olympics evaluated by Müller et al. (2021). The most obvious declined score happens in the public approval indicator, which needs to make

more efforts in social sustainability. In addition, this low score reflects a mismatch between the sustainability goals and real practices, and the one-way transmission of policy from the top-level dominance to the local implementation. This highlights a critical challenge within the MLG framework: insufficient horizontal and vertical coordination, as well as limited accountability mechanisms.

Economic dimension

Budget balance. The key point of budget balance is the ratio between actual expenditure beyond the bid budget and the budget itself (Müller et al., 2021). The original budget set in 2017 is about 6,8 million euros, and the final budget for facilities and operations is estimated at 8,9 million euros including 4,4 million euros for COJOP's operational needs, and 4,5 million euros for SOLIDEO's construction of sport and non-sport venues, so the score is about 60 (Francis, 2024; Mintz, 2024). The security needs increased affected the cost during this special period (Francis, 2024). Following the IOC's Agenda 2020, the New Norm, and 2020+5, Paris 2024 implements severe financial oversight and restricted expenditure of the event's funds, aiming to realize the "lean" Games, which requires coordinated financial governance across multiple levels, including the IOC, the French State, local authorities, and organizing bodies like COJOP and SOLIDEO, to ensure transparency, accountability, and effective cost control (Jones, 2024). With this efficient financial management, Paris 2024 achieves a modest financial surplus of 26.8 million in its operational area, the revenue mainly from ticket and hospitality, sponsorship, the IOC's contribution, and public funds (Perelman, 2024). The budget should take inflation into consideration, which means the actual financial pressure might be higher than it seems. Therefore, a score of 60 might overestimate the financial governance of the organizers. According to Müller and his colleagues' research (2021), the budget balance indicator shows the lowest value with an average value of 26, although the budget balance score may be overestimated, Paris 2024 still is the Olympics with the lowest overruns.

Financial exposure. This indicator assesses the percentage of Olympic sports budgets that require public sector contributions, aiming to assess financial risks assumed by

taxpayers and the potential public burden associated with hosting the Games (Müller et al., 2021). According to the IOC (2024c), the total public contribution for Paris 2024 is three million euros, and it accounts for 33,7% of the sports budget, getting a score of 60. Public funding and taxpayers' money were used to carry out infrastructure construction with long-term regional benefits, and almost 96% of the operational expenditure was funded by private partners (COJOP, 2025; Francis, 2024). The diversified funding structure substantially reduces the financial risk in the public sector. It also reflects a high level of coordination between public and private actors and indicates private investors' confidence in the project. Therefore, Paris 2024 gets a score of 60, in the upper middle of the range. Compared with the Tokyo Olympics which only gets a score of 20, Paris 2024 significantly reduces the burden on taxpayers and demonstrates mature commercial operation capabilities (Trendafilova et al., 2022).

Long-term viability. This indicator evaluates the post-Games legacy value of Olympic venues by assessing whether both permanent and temporary facilities are supported by clear legacy plans and integrated into long-term urban development strategies, thereby avoiding the emergence of "white elephants" (Müller et al., 2021). "White elephant" is a common metaphorical term in the context of large-scale projects such as the Olympics, which is often used to criticize host 95cities for not being able to fully utilize the large-scale infrastructures or facilities after the games, and lack of post-game planning for integration and operation, leading to a waste of resources and financial pressure (Davis, 2019). During Paris 2024, these only two new-built competition venues are strategically planned for post-Olympic utilization: the Olympic Aquatic Centre benefits the Seine-Saint-Denis region by offering swimming facilities for local residents, as well as for French Swimming; the Adidas Arena is open for sports clubs and residents, and hosting of concerts, shows, etc. (Ville de Paris, 2024). Other venues were temporary, and all facilities were removed after the Games, which were given a second life and involved in local sports development by Paris 2024 (COJOP, 2024b). Non-competition venues including the Olympic Villages and the Media Village also were newly built for Paris 2024, both of which have a superior geographical

location, provide services to the local community, and offer people about 3,500 homes, sports infrastructure, and green spaces (SOLIDEO, 2019). Therefore, Paris 2024 can get a score of 100 which is quite common in the survey of Müller and his colleagues (2021).

In terms of economic dimension, Paris 2024 has an excellent performance than other previous editions with a total score of 280. This also reflects the outcomes of attempts to realize a real lean Olympic Games, focusing on cost control, sustainable investments, and long-term economic benefits. Paris 2024 focuses on the reuse of infrastructures, materials, and facilities, leaves many sports legacies around the country for resident to use, and also involves the Olympic project in its urban development. Effective coordination between various levels and actors enabled the alignment of financial goals and the efficient use of resources. Two specialized organizations, COJOP and SOLIDEO, combine public sectors and private partners, match the organization's needs with professional offerings, and involve companies in its circular economy, reducing resource waste.

4.2 Reflections and Future Insights

In conclusion, Paris 2024 achieved a final sustainability score of approximately 51 out of 100, which is higher than the average score of 48 observed across 16 previous Olympic editions from 1992 to 2020 by Müller et al. (2021). According to the research of Müller et al. (2021), the most sustainable Olympic Games are the Salt Lake City 2002 Winter Olympics with 71 points, and Barcelona 1992 is the most sustainable Summer Olympics with a score of 56. Trendafilova et al. (2022) examine the real score of Tokyo 2020 after the Games, which is 480 in total and 53 on average. As a special Olympic Games, Tokyo 2020 benefited from limited carbon emissions due to restraints related to COVID-19. Therefore, in a comparison of all Summer Olympics Games between 1992 and 2020, Paris 2024 ranks the third place, sharing the position with Sydney 2000. This result highlights the substantial progress and great sustainability performance achieved by Paris 2024.

Paris 2024 is the first Olympics after the Olympic Agenda 2020 and was organized

under the framework of the Olympic Agenda 2020+5, and the IOC's sustainability strategy, demonstrating multi-level governance that shows a tight connection from the top level to the local level, and extends the engagement of non-state actors, like private companies and civil society, enriching the governance process and supporting the delivery of sustainable outcomes across ecological, economic, and social dimensions.

However, this only can say that Paris 2024 made efforts to achieve sustainable goals, rather than saying that it achieved these goals. In terms of the ecological aspect, although Paris 2024 has made considerable efforts to reduce its carbon footprints, such as temporary infrastructure, low-emission buildings, and renewable energy sources, according to the report from the Carbon Market Watch (2024), the narrative of sustainability in public communication has shifted over time from "carbon neutrality" to "the first Games with a positive impact on the climate", and finally to "Olympics in tune with society and its realities", reflecting the dishonesty to the public. Besides, the evaluation and calculation methods adopted by Paris 2024 have been criticized for their unreliability, with many of the underlying processes remaining opaque (Carbon Market Watch, 2024; Boykoff, 2025). Moreover, although the carbon emission of Paris 2024 shows a 54.6% reduction compared to London 2012 and Rio 2016, the Games still face inevitable constraints in mitigating carbon emissions from international travel and visitor transportation, which remain major sources of environmental impact. Marie Delaplace, a professor from Université Gustave Eiffel, criticizes that it is a paradox to describe the Olympics as "sustainable", and the impact on the environment cannot be avoided (Marechal, 2024).

With respect to the social dimension, it has the lowest value compared to other dimensions, reflecting the weakness of social sustainability in the Games, especially regarding the grassroots level. In the governance process, although many civil society actors have been involved, it still lacks meaningful and real public participation and social justice for marginalized groups. Rather than addressing underlying social issues, the mega-event tends to overshadow them with narratives of symbolic benefits

(Boykoff, 2024; Kennelly, 2013). According to Wolfe (2022), the plans for local development were discussed between international, national, regional, and municipal actors, without the participation of residents of the Seine-Saint-Denis department. Moreover, as the first Olympics after the new reform regulated by the IOC, Paris 2024 increases the intensity of interactions among actors from various levels at multiple scales (Wolfe, 2022). In this context, Wolfe (2023) points out that the Paris 2024 governance reflects fragments, making the attribution of problems and responsibility more complicated than before the reform, which leads to the lack of accountability. For example, in terms of public transportation, due to the absence of a clear financial agreement between the COJOP and IDFM, Paris 2024 fails to provide free public transport for ticket-holders during the Games, highlighting the lack of alignment across institutional actors at different levels and not beneficial to the public interests (Tauvel et al., 2024).

Finally, in terms of economic dimension, the economic performance of the Paris Olympics is far from ideal. Budzier and Flyvbjerg (2024) observe that every edition of the Olympic Games from 1990 to 2024 has overruns. Although Paris 2024 concentrates on maximizing the use of existing facilities and on reusing the materials, Paris 2024 still cannot escape this cost overrun curse. Moreover, Paris 2024 increased the involvement of private capital and relied on the private sector, including sponsors, game ticket sales, and licenses, to support the operation of the event (COJOP, 2025). However, as discussed in Section 1.2.2, by integrating green concepts into its marketing approach, the IOC effectively leads consumer behavior toward partner brands, contributing to the broader commercial expansion of the Games (Glasson, 2024). Paris 2024 is also caught up in “greenwashing” controversies. The Carbon Market Watch (2024) concludes the conditions of Paris 2024 sponsorship from Oxfam France’s report (2021) that most sponsorships are not aligned with the Paris Agreement and in a “climate-destructive pathway”, such as AirFrance and Aeroports de Paris. For example, at the Paris 2024 Olympics, disposable plastic bottles were banned as part of sustainability efforts, and audiences were encouraged to use

reusable cups. However, Coca-Cola, a major Olympic sponsor for years, has faced criticism for its approach of just pouring plastic bottle drinks directly into reusable cups, which is unnecessary and defeats the original intention of reuse (Plastic Pollution Coalition, 2024). The Carbon Market Watch (2024) suggests that all Olympic Games, even all mega-events, should refuse to collaborate with unsustainable sponsors, and seek eco-friendly sponsors, to maintain their promises of social responsibility and environmental sustainability, setting an excellent example for global events. Nevertheless, this pattern of organizing mega-events is still in the early stages of exploration and experience, and its true economic benefits will take time to be proven by long-term legacy (Budzier & Flyvbjerg, 2024).

Based on the sustainability evaluation model, Müller and other scholars (2021) provide three suggestions for improvements in sustainability in the short term. Firstly, due to flights and tourists being the main causes of carbon emissions, the number of live spectators should be reduced and drive the use of digital experiences, which also can avoid population displacement, rising living costs for residents caused by too many tourists, and other problems (Sun et al., 2024; Müller et al., 2024). For instance, in Trendafilova and other researchers' (2022) assessment of the Tokyo 2020 Olympics, using the same evaluation model, Tokyo 2020 significantly limited the number of live spectators under strict COVID-19 restrictions, resulting in a notable reduction in carbon emissions, and due to the limited visitor footprints, this edition of Games gets a score of 100. The IOC officially released the Olympic AI Agenda in 2024, marking the systematic introduction of AI technology into the Olympic governance; as the first example of this agenda, Paris 2024 explores the use of AI in various areas, such as identifying cyber violence, the system of data collection and energy management to monitor real-time energy consumption, and the OBS Cloud realizing the delivery of content online, all which effectively reduce carbon emissions (IOC, 2024d).

Secondly, they suggest rotating the Games among some cities with the complete infrastructure and venues, to reduce social and ecological disruption and reach lower hosting costs and greater efficiency (Müller et al., 2024). Paris 2024 has made

significant progress in this point by using approximately 95% of existing venues, thereby minimizing the need for new construction and saving hosting costs for more sustainable measures (COJOP, 2021b). Salt Lake City held the Winter Olympics in 2002, which is evaluated by Müller and his group (2021) as the most sustainable Olympics between 1990 and 2020, and this city will hold the 2034 Winter Olympic Games again. As a city with existing and complete sports infrastructures and facilities, experience of successful Games, and nice weather conditions, Salt Lake City is one of the ideal choices to host the future Winter Olympics (Roche, 2024). The IOC's reassignment of Salt Lake City as the host city for the Winter Olympics means that the IOC takes rotating the Winter Olympics between cities with appropriate climates in the future into consideration to ensure the sustainability of the event. However, the plan of permanent cities for rotating Olympic Games is not considered and proposed by the IOC, and it might require a long time to observe climate change and global temperature (Roche, 2024). Besides, although this suggestion may be efficient in reducing costs and environmental disruption, to some extent, this idea also raises concerns about global fairness and inclusiveness, especially in the Olympic Games, such a mega event involving various actors, within the multi-level governance. The Olympic Game is a global event and can influence the whole world. In terms of cultural, economic, and even political aspects, the continuous hosting in the same cities may marginalize developing countries and emerging economies, and weaken their opportunities to use the Olympic stage to enhance their national image and cultural soft power, intensifying the global imbalance. Moreover, this rotating approach may limit other cities' and countries' participation in the Olympic governance, contrary to the inclusive and coordinated goals pursued by the Olympic Charter. Concerning global justice, the new form of sustainable Olympics should consider both sustainability and the global nature of the Olympics.

Thirdly, the sustainability governance should be improved and completed to guarantee the different host countries adhere to the same standards of sustainability (Müller et al., 2021). It needs to establish specialized institutions to supervise, define

responsibility precisely, and implement, which is also beneficial for multi-level governance to reduce fragmentation. According to Wolfe (2024), host authorities and the IOC have “vested interests” in their positive influence and global reputation, thereby they tend to conceal negative sides, needing an independent and professional system and institution to monitor the whole process and assess results fairly. In the case of Paris 2024, although the organizers claim that its carbon footprint will be lower than any previous Olympics, the lack of uniform standards and external supervision of many measures during actual implementation has led to unconvincing data and opaque assessment methods. A unified and strong framework for sustainable governance will help to make the Olympic Games more sustainable and credible.

In the analysis of suggestions from Müller and his group (2021), it is found that Paris 2024 has implemented many proposals of sustainable development put forward by scholars, however, the final score of its sustainable performance is not that ideal—high practice, low return. The low score does not necessarily mean complete failure but may be differences between the external standard and internal standard of the IOC, which suggests the official institutions should publish the data and review process. Besides, the contradiction between Paris 2024’s green claims and collaboration with carbon-intensive sponsors demonstrates the green reform of the Olympics still faces internal conflicts that cannot be easily reconciled. The nature of huge effects makes the Olympic Games have to rely on high costs financed by amounts of sponsors which are international companies. But in terms of thoughts, Paris 2024 raised the flag of carbon neutrality and climate-positive Olympics. Therefore, it is difficult to reach a balance between “green” and “reality”. Moreover, we can conclude the drawbacks of MLG from Paris 2024’s practices. Paris 2024 increased the involvement of multiple actors due to the reform, and vertical and horizontal practices of MLG benefit resource integration and efficiency. However, the MLG still ignores public citizen participation and lacks clear attribution of responsibility.

Paris 2024 is the first attempt at many ideas and can be seen as a green Olympic testing ground, and some measures are still in the stage of exploration. These attempts do not

mean that all effects are obvious, afterwards long-term effects may be observed. As a classic example of sports mega-events, Paris 2024 provides references for other mega-events. Firstly, based on the good lessons of Paris 2024, the reuse of existing venues and budget control management should be learned in the future organization of sports mega-events, which can significantly reduce construction carbon emissions and save costs while improving urban resilience. Secondly, the international community should establish an independent body to implement a unified standard and assessment, ensuring accountability and transparency. Regardless of which sports mega-event is hosted where, sustainability can be evaluated within the same standard, which also can serve as a reference to promote global understanding of sustainability. Thirdly, sports mega-events should build robust coordination among actors from different levels, setting more precise tasks for each actor to avoid fragmentation. In addition, sports mega-events should consider social justice, as social sustainability is a crucial part of sustainability, especially the participation of residents and marginalized groups in governance. Finally, sports mega-events should involve post-event legacy in urban planning and social development strategy, transforming the huge effects of sports mega-events into a driving force for local development.

Conclusion

In recent years, climate change and other environmental issues have become increasingly urgent concerns for the international community, which also affect social and economic aspects. Initiatives such as the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs) reflect the international community's aim to promote environmental protection, social equity, and economic development. In this context, sports mega-events play a crucial role in the international community. Due to their high visibility, symbolic significance, and capacity to mobilize diverse stakeholders, sports mega-events have been increasingly linked to sustainable development agendas and can provide influential platforms that can promote collective action for sustainability, for instance, the Olympic Games has included sustainability as its core principle (IOC, 2014). Nonetheless, the Olympic movement has often been criticized for “greenwashing” and failing to fulfill its sustainability promises.

As the first Summer Games following the adoption of the IOC’s Agenda 2020, the New Norm, and Agenda 2020+5 reforms, Paris 2024 aimed to become the “greenest and most sustainable” edition in Olympic history by implementing many sustainable measures. However, due to the negative impact of greenwashing in the previous Olympic Games, Paris 2024 is still questioned by public opinion in its credibility and governance of sustainability efforts. Sachs (2012) has emphasized that achieving the “triple bottom line” of sustainability, environmental, social, and economic dimensions, requires strong and effective governance from all levels. Therefore, this thesis introduced the perspective of multi-level governance, which offers a useful lens to analyze how actors (from international, supranational, national, and local levels) interact and coordinate vertically and horizontally to implement practices in achieving sustainability in sports mega-events. In response to the research objectives, the main findings are summarized below.

Firstly, the thesis identified a wide range of actors across different levels from international to local levels, involved in the governance of Paris 2024, and examined their interactions under the lens of MLG. At the international level, as the core of the Olympic Movement, the IOC takes responsibility for overall strategic planning, policy direction, and supervision to ensure accordance of the Games' organization to international sustainable goals. The IOC is implementing reforms based on the Olympic Agenda 2020, the New Norm, and the Agenda 2020+5 to reduce extra costs from the bidding, preparation, organization, and post-games process, achieving sustainability gradually. Besides, the IOC works tightly with other international actors, such as the UN and the OECD in sustainable aspects. At the supranational level, the EU sets the integral standards for green development and facilitates policy coordination, funding support, and regulatory frameworks to help member states achieve sustainability goals. As the MLG is in the center of the EU, the cooperation between the EU's member states also promotes safety and order during Paris 2024, avoiding resource waste. At the national level, the French State is in charge of national-level strategies, such as the Grand Paris integration, resource allocation, financial support, and legal supervision, following the requirements of the IOC and the EU. State actors still occupy an important position in multi-level governance, coordinating with various actors in many areas, such as public transportation, infrastructures, legacy, etc. At the local level, as the reform of the Olympics requires integrating the Games into urban development, not only the City of Paris but also other local authorities, such as the Île-de-France regional council, and the Seine-Saint-Denis department, etc., play great roles in carrying out local-specialized measures. The social actors, such as companies, trade unions, and other civil groups positively participate in the governance, coordinating to boost local employment and other long-term programs. As examples of Type II of MLG, the COJOP and the SOLIDEO are designed especially for the Games, and separately responsible for the organization of the Games, and for the construction of venues and infrastructures. They coordinate and connect all actors in achieving sustainability as intermediaries. From the vertical and horizontal views, the MLG approach extends

diverse participation, increases inclusiveness, ensures policy coherence, and adapts the dynamic and complicated changes with flexibility.

In order to assess the sustainable practices of Paris 2024, the thesis uses the evaluation model of Müller et al. (2021) in "triple bottom line" dimensions, analyzing nine indicators of Paris 2024. The total score of Paris 2024 is 460, and the average score is 51. Compared with other Summer Olympics Games between 1992 and 2016 evaluated by Müller et al. (2021) and the Tokyo 2020 Summer Olympics assessed by Trendafilova et al. (2022), Paris 2024's score is equal to Sydney 2000, and slightly lower than the scores of Barcelona 1992 and Tokyo 2020. Therefore, Paris 2024 showcases its high-level performance in sustainability.

However, although Paris 2024 proposed several commitments and practical initiatives for sustainable development, its results still failed to meet the expectations shown in public communications and revealed an imbalance in three dimensions. In short, Paris 2024 is an event of "high practice, low return". Ecologically, the actual reduction in carbon emissions remains limited due to the huge population of spectators, and the assessment method and data inside the IOC are opaque. Economically, compared to other Olympics, Paris 2024 decreased its costs, but the cooperation with carbon-intensive sponsors shows the internal conflicts inside the Games. The social dimension gets the lowest score, due to neglecting the needs of marginalized groups and residents. From the perspective of MLG, Paris 2024 reveals many limitations of the MLG in practice. In actual practices of Paris 2024, there are obvious problems of insufficient coordination: vertically, a disconnect between top-level and local capacities; horizontally, too many actors involved and hard to determine attribution of responsibility, and insufficient inclusiveness.

Although the Paris 2024 Olympics' results fail to meet its expectations, it represents only the first step in the Olympic Movement's reform and broader commitment to sustainability. This new pattern of the Olympic governance requires time to evolve, improve, and be supplemented by future practices. Its practices, achievements, and limitations all can serve as valuable references for sports mega-events governance in

sustainability. First of all, the reuse of existing venues and effective budget management should be emphasized in event planning, as they help reduce carbon emissions, save costs, and enhance urban resilience. Secondly, the international community should establish an independent and unified sustainability assessment mechanism to ensure accountability, reliability, and transparency across different mega-events and host countries. Then, coordination and cooperation mechanisms for actors at different levels of the MLG system should be further improved, with a clear division of responsibilities to prevent the fragmentation of governance. Besides, organizers of sports mega-events must place social justice at the crucial position of the sustainability agenda, as with other dimensions, ensuring the participation and inclusion of marginalized groups and local communities in the governance process. Finally, Trendafilova and other scholars (2022) conclude that "sustainable mega-events and the Olympics can be achieved only if the events are embedded in a carefully planned long-term strategy". Paris 2024 has set a long-term legacy for local communities, and in the future, the long-term legacy may prove its outcomes.

This thesis contributes to the interdisciplinary literature at the intersection of multi-level governance (MLG), sustainability, and sports mega-events, by providing an empirical analysis based on the case of the Paris 2024 Olympics. Firstly, in terms of the intersection of the MLG framework and sustainability, applying the MLG framework to the case of the Paris 2024 Olympics reveals how governance structures affect the implementation of sustainability, responding to Sachs's (2012) emphasis on the importance of governance for achieving sustainability. The outcomes of sustainable efforts indicate the practical limitations of MLG. The interaction between MLG and sports mega-events helps to sort out the complex interactive relations between actors from different levels in sports mega-events and fill a gap in the existing literature on the insufficient perspectives on the governance structure of sports mega-events, besides, the case of Paris 2024 extends the application of MLG in sports studies. Moreover, by analyzing the efforts of Paris 2024, the increased importance of

sustainability in sports mega-events was observed, and the results of these efforts reflect current problems and limitations in organizing and hosting sports mega-events.

The mutual influences and existing limitations of these three interdisciplinary fields can provide a useful governance reference and valuable suggestions not only for the reform of the Olympic Movement and the evolution of sports mega-events but also for other global concerns with complicated governance structures.

Despite its contributions, this study has several limitations. First of all, it relies primarily on publicly available official documents, reports, and secondary sources, and lacks interviews, which may limit the depth of insight into the internal decision-making processes and neglect informal interactions among actors. Secondly, the case of the Paris 2024 Olympic Games has a particularity, because France is a member state of the EU, where the MLG framework was originally developed and sustainability standards are already well-established. Therefore, it may not be fully adapted to other sports mega-events with different political, economic, or cultural contexts. Thirdly, as the Paris 2024 Olympics is the first edition of the Olympics that integrates the Games and urban development, its long-term effects are crucial for the actual achievement of sustainability goals. However, Paris 2024 ended only months ago, thus the temporal limitation of this thesis restricts the observation and analysis of these long-term sustainability legacies, and consequently, the evaluation model used in this thesis also has the limitation of assessing the long-term influences of the Olympics. Future research could adopt more robust models and research methods to assess long-term sustainability impacts and further examine the adaptability of MLG across various political and cultural contexts.

References

Acuto, M. (2013). World Politics by Other Means? London, City Diplomacy an d the Olympics. *The Hague Journal of Diplomacy*, *8*(3-4), 287-311. https:/ /doi.org/10.1163/1871191X-12341255

Ansell, C., & Gash, A. (2008). Collaborative Governance in Theory and Practic e. *Journal of Public Administration Research and Theory*, *18*(4), 543–571. https://doi.org/10.1093/jopart/mum032

Arnaud, P. (1998). Sport—A means of national representation. In P. Arnaud & J. Riordan (Eds.), *Sport and international politics: The impact of fascism a nd communism* (pp. 3–13). Routledge.

Asaka, J. O. (2021). Climate Change - Terrorism Nexus? A Preliminary Review/ Analysis of the Literature. *Perspectives on Terrorism*, *15*(1), 81–92.

Australian Sports Commission. (2012). *Sports governance principles*. https://ww w.clearinghouseforsport.gov.au/__data/assets/pdf_file/0008/857204/ASC_Gove rnance_Principles.pdf

Baade, R. A., & Matheson, V. A. (2016). Going for the Gold: The Economics o f the Olympics. *Journal of Economic Perspectives*, *30*(2), 201–218. https:// doi.org/10.1257/jep.30.2.201

Bache, I. (2012). Multi-level governance in the European Union. In D. Levi-Fau r (Ed.), *The Oxford handbook of governance* (online ed.). Oxford Universit y Press. https://doi.org/10.1093/oxfordhb/9780199560530.013.0044

Bache, I., & Flinders, M. (2004). Multi-Level Governance and the Study of the British State. *Public Policy and Administration*, *19*(1), 31-51. https://doi.or g/10.1177/095207670401900103 (Original work published 2004)

Baker, K. (2015), "Metagovernance, Risk and Nuclear Power in Britain", *Multi-L evel Governance: The Missing Linkages* (*Critical Perspectives on Internation al Public Sector Management, Vol. 4*), Emerald Group Publishing Limited, L eeds, pp. 247-269. https://doi.org/10.1108/S2045-794420150000004010

Beutler, I. (2008). Sport serving development and peace: Achieving the goals of the United Nations through sport. *Sport in Society*, *11*(4), 359–369. htt ps://doi.org/10.1080/17430430802019227

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qu alitative Research Journal, 9*(2), 27-40. https://doi.org/10.3316/QRJ0902027

Boykoff, J. (2016). *Power Games: A Political History of the Olympics*. London: Verso.

Boykoff, J. (2022). Toward a Theory of Sportswashing: Mega-Events, Soft Powe r, and Political Conflict. *Sociology of Sport Journal*, *39*(4), 342-351. Retriev ed May 7, 2025, from https://doi.org/10.1123/ssj.2022-0095

Boykoff, J. (2024, June 20). *The less shiny side of the Olympics*. Transforming Society. https://www.transformingsociety.co.uk/2024/06/20/the-less-shiny-side -of-the-olympics/

Boykoff, J. (2025). Greenwash Gold?: The Paris 2024 Olympics. *Capitalism Nat ure Socialism*, 1–8. https://doi.org/10.1080/10455752.2025.2464556

Boykoff, J., & Gaffney, C. (2020). The Tokyo 2020 Games and the End of Oly mpic History. *Capitalism Nature Socialism*, *31*(2), 1–19. https://doi.org/10.1 080/10455752.2020.1738053

Boykoff, J., & Mascarenhas, G. (2016). The Olympics, Sustainability, and Green washing: The Rio 2016 Summer Games. *Capitalism Nature Socialism*, *27* (2), 1–11. https://doi.org/10.1080/10455752.2016.1179473

Buchanan, K. (2023) *France: New Law Establishes Legal Framework forOlympic and Paralympic Games*. [Web Page] Retrieved from the Library of Congre ss, https://www.loc.gov/item/global-legal-monitor/2023-11-15/france-new-law -establishes-legal-framework-for-2024-olympic-and-paralympic-games/.

Budzier, A., & Flyvbjerg, B. (2024). *The Oxford Olympics Study 2024: Are cost and cost overrun at the Games coming down?* arXiv. https://arxiv.org/abs/ 2406.01714

Bulkeley, H., & Betsill, M. (2005). Rethinking Sustainable Cities: Multilevel Gov ernance and the "Urban" Politics of Climate Change. *Environmental Politic s*, *14*(1), 42–63. https://doi.org/10.1080/0964401042000310178

Bulkeley, H., Davies, A., Evans, B., Gibbs, D., Kern, K., & Theobald, K. (2003). Environmental governance and transnational municipal networks in Europe. Journal of Environmental Policy and Planning, 5, 235-254

Byers, T., Slack, T., & Parent, M. M. (2012). Mega events. In Mega events (pp.

103-106). SAGE Publications Ltd, https://doi.org/10.4135/9781473914599.n23

Carbon Market Watch. (2024). *Going for green: Assessing the climate strategy and communication of the 2024 Paris Olympics*. https://carbonmarketwatch.org/publications/going-for-green-assessing-the-climate-strategy-and-communication-of-the-2024-paris-olympics/

Cha, V. D. (2009). Beyond the final score: The politics of sport in Asia. Columbia University Press.

Chappelet, J. L. (2021). The Governance of the Olympic System: From One to Many Stakeholders. *Journal of Global Sport Management*, *8*(4), 783–800. https://doi.org/10.1080/24704067.2021.1899767

Comitato Olimpico Nazionale Italiano. (2024). *Le Bourget Sport Climbing Venue*. Parigi 2024. https://parigi2024.coni.it/en/schedule/venues/impianto/18%3ALe_Bourget_Sport_Climbing_Venue.html

Committee of the Regions. (2009). *The Committee of the Regions' White Paper on multilevel governance*. *Official Journal of the European Union*, C 211, 1–27. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009IR0089

Coopenergy Consortium. (2015, December). *A guide to multi-level governance: For local and regional public authorities*. https://www.local2030.org/library/210/A-Guide-to-Multi-level-Governance-For-Local-and-Regional-Public-Authorities.pdf

Cope D. G. (2015). Case Study Research Methodology in Nursing Research. *Oncology nursing forum*, *42*(6), 681–682. https://doi.org/10.1188/15.ONF.681-682

Covenant of Mayors. (2025). *Achieving EU climate and energy goals will not happen without multilevel governance*. https://eu-mayors.ec.europa.eu/en/achieving-eu-climate-and-energy-goals-will-not-happen-without-multilevel-governance

Daniau-Fricotteau, B. (2024). Paris 2024 Olympics: A complex governance shared between many stakeholders. Bocconi Students for Sport Management. https://bssportmanagement.com/2024/11/17/paris-2024-olympics-a-complex-governance-shared-between-many-stakeholders/

Davis, J. (2019). Avoiding white elephants? The planning and design of London's 2012 Olympic and Paralympic venues, 2002–2018. *Planning Perspectives*, *35*(5), 827–848. https://doi.org/10.1080/02665433.2019.1633948

de Nooij, M., & van den Berg, M. (2017). The Bidding Paradox: Why Politicians Favor Hosting Mega Sports Events Despite the Bleak Economic Prospects. Journal of Sport and Social Issues, 42(1), 68-92. https://doi.org/10.1177/0193723517748552 (Original work published 2018)

Directorate-General for Employment, Social Affairs and Inclusion. (2024, July 2). *Buying social and circular for the Paris Olympic Games*. EU Social Economy Gateway. https://social-economy-gateway.ec.europa.eu/buying-social-and-circular-paris-olympic-games-2024-07-02_en

European Commission. (2015, December). *CoopEnergy: Multi-level governance in sustainable energy planning*. https://ec.europa.eu/regional_policy/en/newsroom/events/2015/12/coopenergy-multi-level-governance-in-sustainable-energy-planning

European Commission. (2019, December 11). *The European Green Deal* [Press release]. https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_19_6691/IP_19_6691_EN.pdf

European Investment Bank. (2020). REFONTE ACHERES SEINE AVAL. Retrieved May 18, 2025, from https://www.eib.org/en/projects/all/20190784

European Social Fund Plus. (2024). ESF investments create job opportunities for Paris Olympics and Paralympics. European Commission. https://european-social-fund-plus.ec.europa.eu/en/news/esf-investments-create-job-opportunities-paris-olympics-and-paralympics

Feizabadi, M. S., Delgado, F., Khabiri, M., Sajjadi, N., & Alidoust, E. (2015). Olympic Movement or Diplomatic Movement? The role of Olympic Games on development of international relations. *Journal of Sports Science*, *3*(4), 186-194.

Flick, U., von Kardoff, E., & Steinke, I. (Eds.). (2004). *A companion to qualitative research* (Vol. 1). Sage.

Francis, E. (2024, 23 de julho). *Olympic costs can crush host cities. Paris 2024 vowed cheaper Games*. The Washington Post. https://www.washingtonpost.com/sports/olympics/2024/07/23/paris-olympics-2024-cost-budget/

Fratesi, U., & Wishlade, F. G. (2017). The impact of European Cohesion Policy in different contexts. *Regional Studies*, *51*(6), 817–821. https://doi.org/10.1080/00343404.2017.1326673

Freeman, R., & Maybin, J. (2011). Documents, practices and policy. *Evidence & Policy*, *7*(2), 155-170. Retrieved May 10, 2025, from https://doi.org/10.1332/174426411X579207

Fukuda-Parr, S. (2004). Millennium Development Goals: Why They Matter. *Global Governance*, *10*(4), 395–402. http://www.jstor.org/stable/27800537

Geffroy, D., Oliver, R., Juran, L., & Skuzinski, T. (2021). Projecting the Metropolis: Paris 2024 and the (re)scaling of metropolitan governance. *Cities*, *114*, 103189. https://doi.org/10.1016/j.cities.2021.103189

Gignon, A. (2023). Public policies and governance of the 2024 Olympic and Paralympic Games: Potential impacts on territorial development in north-east Paris. *Local Economy*, *38*(4), 389-404. https://doi.org/10.1177/02690942231214494 (Original work published 2023)

Glasson, B. (2024). Reality offsets: Climate meets capitalism at the Olympic Games. European Journal of Cultural Studies, 28(1), 137-155. https://doi.org/10.1177/13675494231224398 (Original work published 2025)

Goonan, M. (2024, August 1). *How Paris 2024 is pedalling towards a greener future*. GHD. https://www.ghd.com/en/insights/how-paris-2024-is-pedalling-towards-a-greener-future

Gouvernement de la République Française. (2024). *Paris 2024 Olympic and Paralympic Games stakeholders*. https://www.info.gouv.fr/grand-dossier/paris-2024-olympic-and-paralympic-games/paris-2024-olympic-and-paralympic-games-stakeholders

Grix, J. (2013). Sport Politics and the Olympics. Political Studies Review, 11(1), 15-25. https://doi.org/10.1111/1478-9302.12001 (Original work published 2013)

Grix, J., & Houlihan, B. (2013). Sports Mega-Events as Part of a Nation's Soft Power Strategy: The Cases of Germany (2006) and the UK (2012). The British Journal of Politics and International Relations, 16(4), 572-596. https://doi.org/10.1111/1467-856X.12017 (Original work published 2014)

Guttmann, A. (1988). The Cold War and the Olympics. International Journal, 43(4), 554-568. https://doi.org/10.1177/002070208804300402 (Original work published 1988)

Hediger, W. (1999), "Reconciling “weak” and “strong” sustainability", *International Journal of Social Economics*, Vol. 26 No. 7/8/9, pp. 1120-1144. https://doi.org/10.1108/03068299910245859

Hensengerth, O. (2015), "Multi-Level Governance of Hydropower in China? The Problem of Transplanting a Western Concept into the Chinese Governance Context", *Multi-Level Governance: The Missing Linkages* (*Critical Perspectives on International Public Sector Management, Vol. 4*), Emerald Group Publishing Limited, Leeds, pp. 295-320. https://doi.org/10.1108/S2045-794420150000004012

Hooghe, L., & Marks, G. (2001). *Types of multi-level governance* (Vol. 5, No. 11). European Integration online Papers. https://doi.org/10.2139/ssrn.302786

Hooghe, L., & Marks, G. (2019). Grand theories of European integration in the twenty-first century. *Journal of European Public Policy*, *26*(8), 1113–1133. https://doi.org/10.1080/13501763.2019.1569711

Horne, J. (2017). Understanding the denial of abuses of human rights connected to sports mega-events*. *Leisure Studies*, *37*(1), 11–21. https://doi.org/10.1080/02614367.2017.1324512

Horne, J., & Manzenreiter, W. (2006). An Introduction to the Sociology of Sports Mega-Events1. The Sociological Review, 54(2_suppl), 1-24. https://doi.org/10.1111/j.1467-954X.2006.00650.x (Original work published 2006)

International Olympic Committee. (2014). *Olympic Agenda 2020: Context and background*. https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/Documents/Olympic-Agenda-2020/Olympic-Agenda-2020-Context-and-Background.pdf

International Olympic Committee. (2017a). *IOC sustainability strategy* (Executive summary). https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Factsheets-Reference-Documents/Sustainability/2017-03-21-IOC-Sustainability-Strategy-English-01.pdf

International Olympic Committee. (2017b). *Host city contract – Principles: Gam*

es of the XXXIII Olympiad in 2024. International Olympic Committee. https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Documents/Host-City-Elections/XXXIII-Olympiad-2024/Host-City-Contract-2024-Principles.pdf

International Olympic Committee. (2018a, October). *IOC sustainability report: Sharing progress on our 2020 objectives*. https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/IOC/What-We-Do/celebrate-olympic-games/Sustainability/IOC%20Sustainability%20Report_Final%20Rev1.pdf

International Olympic Committee. (2018b). *Sustainability report 2018*. https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/IOC/What-We-Do/celebrate-olympic-games/Sustainability/IOC-Sustainability-Report-2018.pdf

International Olympic Committee. (2021a). *IOC legacy strategic approach 2021-2024 objectives*. https://stillmed.olympics.com/media/Documents/Olympic-Games/Olympic-legacy/IOC-Legacy-Strategic-Aproach-2021-2024-objectives.pdf

International Olympic Committee. (2021b). *Olympic Agenda 2020+5: 15 recommendations*. https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/IOC/What-We-Do/Olympic-agenda/Olympic-Agenda-2020-5-15-recommendations.pdf

International Olympic Committee. (2024a, July 21). *Paris 2024: Setting new standards in sustainable and inclusive sport events*. https://olympics.com/ioc/news/paris-2024-setting-new-standards-in-sustainable-and-inclusive-sport-events

International Olympic Committee. (2024b, July 1). *Paris 2024 models a new sustainable urban vision*. Olympics.com. https://www.olympics.com/ioc/news/paris-2024-models-a-new-sustainable-urban-vision

International Olympic Committee. (2024c, May 15). *Independent study reveals Olympic Games Paris 2024 economically beneficial for host region*. https://olympics.com/ioc/news/independent-study-reveals-olympic-games-paris-2024-economically-beneficial-for-host-region

International Olympic Committee. (2024d). *AI and tech innovations at Paris 2024: A game changer in sport*. Olympics.com. https://www.olympics.com/ioc/news/ai-and-tech-innovations-at-paris-2024-a-game-changer-in-sport

International Olympic Committee. (2025). *Olympic charter*. https://stillmed.olym

pics.com/media/Documents/International-Olympic-Committee/IOC-Publications/EN-Olympic-Charter.pdf

Jabareen, Y. (2006). *A New Conceptual Framework for Sustainable Developmen t. Environment, Development and Sustainability, 10(2), 179–192.* doi:10.1007/s10668-006-9058-z

Jacobsen, D. I., Sandin, G., & Hellström, C. (2002). *Vad, hur och varför: om metodval i företagsekonomi och andra samhällsvetenskapliga ämnen*. Studentlitteratur AB.

Jones, M. (2024, March 11). *Paris' "lean" Olympics won't blow any budgets, c redit rating firm S&P says*. Reuters. https://www.reuters.com/world/europe/paris-lean-olympics-wont-blow-any-budgets-credit-rating-firm-sp-says-2024-03-11/

Kennelly, J. (2013). 'You're making our city look bad': Olympic security, neoliberal urbanization, and homeless youth. *Ethnography*, *16*(1), 3-24. https://doi.org/10.1177/1466138113513526 (Original work published 2015)

Keohane, R. O., & Nye, J. S. (2000). Introduction. In J. S. Nye & J. D. Donahue (Eds.), *Governance in a globalizing world* (pp. 1–42). Brookings Institution Press. https://doi.org/10.7864/j.ctvdf0j9t.4

Klein, M., & Xhaferi, P. (2024). Observations on Multi-level Governance and democracy. *Australian and New Zealand Journal of European Studies*, *16*(1/2).

Kobierecki, M. M. (2013). Sport in International Relations. Expectations, Possibilities and Effects. *International Studies. Interdisciplinary Political and Cultural Journal*, *15*(1), Article 1. https://doi.org/10.2478/ipcj-2013-0004

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Koula, A. C. (2024). *AI-driven mass surveillance at 2024 Olympics: The human rights issues and recommendations*. Manchester Metropolitan University. https://www.mmu.ac.uk/sites/default/files/2024-06/AI-driven%20Mass%20Surveillance%20at%202024%20Olympics%20-%20The%20Human%20Rights%20Issues%20and%20Recommendations.pdf

Le Revers de la Médaille. (2024). *1 year of social cleansing* [AI-translated fro

m French]. https://lereversdelamedaille.fr/wp-content/uploads/2024/06/1-year-of-social-cleansing-le-revers-de-la-medaille-Disclaimer-AI-generated-translation-from-the-French-version-may-not-be-accurate.pdf

Lee Ludvigsen, J. A., Rookwood, J., & Parnell, D. (2022). The sport mega-events of the 2020s: governance, impacts and controversies. *Sport in Society*, *25*(4), 705–711. https://doi.org/10.1080/17430437.2022.2026086

Legrand, W. (2024). *Paris 2024: The 'greenest ever' Games has set a new standard for global events*. IMD. https://www.imd.org/ibyimd/sustainability/paris-2024-the-greenest-ever-games-has-set-a-new-standard-for-global-events/

Lemke, W. (2016). The role of sport in achieving the Sustainable Development Goals. *UN Chronicle*. https://www.un.org/en/chronicle/article/role-sport-achieving-sustainable-development-goals

Lemus-Delgado, D. (2023). Opening ceremonies and national identity: Beijing 2008 and Tokyo 2020. *National Identities*, *25*(5), 463–482. https://doi.org/10.1080/14608944.2023.2242792

Leopkey, B., & Parent, M. M. (2015). Stakeholder perspectives regarding the governance of legacy at the Olympic Games. *Annals of Leisure Research*, *18*(4), 528–548. https://doi.org/10.1080/11745398.2015.1092388

Les Canaux. (n.d.). *ESS 2024*. https://ess2024.org/

Levin, K., Cashore, B., Bernstein, S., & Auld, G. (2012). Overcoming the tragedy of super wicked problems: Constraining our future selves to ameliorate global climate change. *Policy Sciences*, *45*(2), 123–152. https://doi.org/10.1007/s11077-012-9151-0

Loi n° 2023-380 du 19 mai 2023 relative aux jeux Olympiques et Paralympiques de 2024 et portant diverses autres dispositions. (2023). *Journal officiel de la République française*. https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000047561974

Lomazzi, M., Borisch, B., & Laaser, U. (2014). The Millennium Development Goals: experiences, achievements and what's next. *Global Health Action*, *7*(1). https://doi.org/10.3402/gha.v7.23695

Marechal, A. (2024). Can we really measure the ecological footprint of the Olympics? Polytechnique Insights. https://www.polytechnique-insights.com/en/

columns/planet/can-we-really-measure-the-ecological-footprint-of-the-olympics/

Marks, G. (1993). 23 Structural Policy and Multilevel Governance in the EC. In A. Cafruny & G. Rosenthal (Ed.), *The State of the European Community: The Maastricht Debates and Beyond* (pp. 391-410). Boulder, USA: Lynne R ienner Publishers. https://doi.org/10.1515/9781685856540-024

Masterson, V. (2024). *Paris 2024: The most sustainable Olympics ever?* World Economic Forum. https://www.weforum.org/stories/2024/03/paris-most-sustainable-olympics-2024/

Mebratu, D. (1998). *Sustainability and sustainable development. Environmental Impact Assessment Review, 18(6), 493–520.* doi:10.1016/s0195-9255(98)00019-5

Meza Talavera, A., Al-Ghamdi, S., & Koç, M. (2019). Sustainability in Mega-Events: Beyond Qatar 2022. *Sustainability*, *11*(22), 6407. https://doi.org/10.3390/su11226407

Ministère de l'Intérieur. (2024). *Paris 2024: Protecting is our priority!*. https://www.interieur.gouv.fr/en/paris-2024-protecting-is-our-priority

Mintz, M. (2024, July 25). *CreditWeek: Are the Olympics a budgetary burden for Paris?* S&P Global Ratings. https://www.spglobal.com/ratings/en/research/articles/240725-creditweek-are-the-olympics-a-budgetary-burden-for-paris-13192209

Mokuena, N. M. (2024, May). *Playing games with rights: A case against AI surveillance at the 2024 Paris Olympics*. Georgetown Law Technology Review. https://georgetownlawtechreview.org/playing-games-with-rights-a-case-against-ai-surveillance-at-the-2024-paris-olympics/GLTR-05-2024/

Mukhlis, M., & Perdana, R. (2022). A Critical Analysis of the Challenges of Collaborative Governance in Climate Change Adaptation Policies in Bandar Lampung City, Indonesia. *Sustainability*, *14*(7), 4077. https://doi.org/10.3390/su14074077

Mulholland, E., & Berger, G. (2017). *Multi-level governance and vertical policy integration: Implementation of the 2030 Agenda for Sustainable Development at all levels of government* (ESDN Quarterly Report No. 43). ESDN Office.

Müller, M. (2015). What makes an event a mega-event? Definitions and sizes. *Leisure Studies*, *34*(6), 627–642. https://doi.org/10.1080/02614367.2014.993333

Müller, M., & Steyaert, C. (2013). The geopolitics of organizing mega-events. In J. M. S. Munoz (Ed.), *Handbook on the Geopolitics of Business*. Edward Elgar Publishing. https://doi.org/10.4337/9780857939753.00017

Müller, M., Wolfe, S. D., Gaffney, C., Petrovic, M., Gibbons, B., & Edwards, L. (2021). An evaluation of the sustainability of the Olympic Games. *Nature Sustainability, 4*(4), 340–348. https://doi.org/10.1038/s41893-021-00696-5

Murray, S. (2013). Moving beyond the ping-pong table: Sports diplomacy in the modern diplomatic. *Public Diplomacy Magazine*, *9*(1), 11-17. http://publicdiplomacymagazine.com/category/past-issues/issue-winter-2013/

Newman, J., Collinson, S., Driffield, N., Gilbert, N., & Hoole, C. (2023). Mechanisms of metagovernance as structural challenges to levelling up in England. *Regional Studies*, *58*(4), 876–892. https://doi.org/10.1080/00343404.2023.2217215

Nouvian, T. (2024, November 4). *The Paris Olympics displaced nearly 20,000 people, local associations say*. Associated Press. https://apnews.com/article/paris-2024-summer-olympics-expulsions-bec056da16aa71722e4ce1c32ceac1de

N'tsia, S. (2024). *European police forces meet in Paris to ensure security for the Olympic Games*. Euractiv. https://www.euractiv.com/section/defence/news/european-police-forces-meet-in-paris-to-ensure-security-for-the-olympic-games/

Nye, J. S. (2008). Public Diplomacy and Soft Power. *The ANNALS of the American Academy of Political and Social Science*, *616*(1), 94–109. https://doi.org/10.1177/0002716207311699

Odoxa. (2024). *JO 2024 : 1 Francilien sur 6 souhaite louer son logement* [Survey on Paris 2024 Olympics housing rentals]. Odoxa. https://www.odoxa.fr/sondage/jo-2024-1-francilien-sur-6-souhaite-louer-son-logement/

OGI-UBC Research Team. (2013, October 23). Olympic Games Impact (OGI) Study for the 2010 Olympic and Paralympic Winter Games: Post-Games Report [R]. doi:http://dx.doi.org/10.14288/1.0132645

Olsson, J. (2003). Democracy paradoxes in multi-level governance: The Europea

n Union and cohesion policy. *Journal of European Public Policy*, 10(2), 283–300. https://doi.org/10.1080/1350176032000059034

Ongaro, E. (2015). Multi-Level Governance: The Missing Linkages. In E. Ongaro (Ed.), *Critical Perspectives on International Public Sector Management* (Vol. 4, pp. 1–14). Emerald Group Publishing Limited. https://doi.org/10.1108/S2045-794420150000004001

Organisation for Economic Co-operation and Development. (2024, July 9). *The Paris 2024 Olympic and Paralympic Games: Boosting local jobs and businesses through a social charter*. https://www.oecd.org/en/publications/providing-local-actors-with-case-studies-evidence-and-solutions-places_eb108047-en/the-paris-2024-olympic-and-paralympic-games-boosting-local-jobs-and-businesses-through-a-social-charter_ecf7efec-en.html

Organisation for Economic Cooperation and Development. (n.d.). *Multi-level governance*. OECD. https://www.oecd.org/en/topics/multi-level-governance.html#top

Organising Committee for the Olympic and Paralympic Games Paris 2024. (2021a). *Sustainability and legacy report: Paris 2024*. https://library.olympics.com/Default/doc/SYRACUSE/1568284

Organising Committee for the Olympic and Paralympic Games Paris 2024. (2024b). *Paris 2024 sustainability & legacy post-Games report summary: Strategic focus: Delivering more sustainable Games*. Organising Committee for the Olympic and Paralympic Games Paris 2024. https://press.paris2024.org/assets/paris-2024-sustainability-legacy-post-games-report-summary-430a1-7578a.html

Organising Committee for the Olympic and Paralympic Games Paris 2024. (2025). *Official report: Paris 2024*. Olympics.com. https://library.olympics.com/Default/doc/SYRACUSE/3598866/official-report-paris-2024-organising-committee-for-the-olympic-and-paralympic-games-paris-2024

Organising Committee for the Paris 2024 Olympic and Paralympic Games. (2021b). *The legacy and sustainability plan for the Paris 2024 Olympic and Paralympic Games*. https://library.olympics.com/Default/doc/SYRACUSE/848876

Oxfam France. (2021). *Climat : CAC degrés de trop. Le modèle insoutenable d*

es grandes entreprises françaises. https://www.oxfamfrance.org/app/uploads/2021/03/rapportOXFAM_CACdegresdetrop_VFF.pdf

Papadopoulos, Y. (2010). Accountability and Multi-level Governance: More Accountability, Less Democracy? *West European Politics*, *33*(5), 1030–1049. https://doi.org/10.1080/01402382.2010.486126

Parent, M. M. (2015). The governance of the Olympic Games in Canada. *Sport in Society*, *19*(6), 796–816. https://doi.org/10.1080/17430437.2015.1108652

Paris 2024 Organising Committee. (2021c). *Paris 2024 commits to a climate positive Olympic and Paralympic Games* [Press release]. https://press.paris2024.org/assets/press-release-paris-2024-paris-2024-commits-to-a-climate-positive-olympic-and-paralympic-games-pdf-725d-7578a.html

Paris 2024 Organising Committee. (2022, June 23). *Paris 2024 Executive Board proposes changes to venue plan which reinforces Seine-Saint-Denis' role at heart of the Games*. https://press.paris2024.org/news/paris-2024-executive-board-proposes-changes-to-venue-plan-and-discusses-paralympic-games-opening-ceremony-in-centre-of-paris-33d6-7578a.html

Paris 2024 Organising Committee. (2024a). *Five months from the Games: Initial results and a push forward for sporting legacy of the Paris 2024 Games*. Paris 2024 Pressroom. https://press.paris2024.org/news/five-months-from-the-games-initial-results-and-a-push-forward-for-sporting-legacy-of-the-paris-2024-games-8fd4-7578a.html

Paris 2024. (2018, June 19). France's main trade union and employer organisations make Paris 2024 commitment. *Paris 2024 Press Office.* https://press.paris2024.org/news/frances-main-trade-union-and-employer-organisations-make-paris-2024-commitment-56e6-7578a.html

Pavitt, M. (2022, March 11). *Paris 2024 expected to maintain plans for shooting and basketball venues*. Inside the Games. https://www.insidethegames.biz/articles/1120402/paris-2024-shooting-basketball-venues

Pereira, J., & Viola, E. (2020, August 27). Climate Multilateralism Within the United Nations Framework Convention on Climate Change. Oxford Research Encyclopedia of Climate Science. Retrieved 19 May. 2025, from https://oxfordre.com/climatescience/view/10.1093/acrefore/9780190228620.001.0001

/acrefore-9780190228620-e-639.

Perelman, R. (2024). *Paris 2024 organizing committee budget shows a financia l surplus by about €26.8 million as Estanguet exits*. https://www.thesportsexaminer.com/paris-2024-organizing-committee-budget-shows-a-financial-surplus-by-about-e26-8-million-as-estanguet-exits/

Peters, B. G., & Pierre, J. (2004). Multi-level governance and democracy: A Fa ustian bargain? In I. Bache & M. Flinders (Eds.), *Multi-level governance* (p p. 75–92). Oxford University Press. https://doi.org/10.1093/0199259259.00 3.0005

Piattoni, S. (2009). Multi-level Governance: A Historical and Conceptual Analysi s. *Journal of European Integration*, *31*(2), 163–180. https://doi.org/10.1080 /07036330802642755

Piattoni, S. (2010). The evolution of the studies of the European Union MLG. In *Governance and intergovernmental relations in the European Union an d the United States* (Chap. 7). Edward Elgar Publishing. https://doi.org/10. 4337/9781849807067.00012

Plastic Pollution Coalition. (2024, August 20). *Are efforts to green the Olympic Games enough?* https://www.plasticpollutioncoalition.org/blog/2024/8/20/ar e-efforts-to-green-the-olympic-games-enough

Poyraz, A. Y., & Szalmáné Csete, M. (2023). Multi-level Governance of Sustain ability Transition in the European Union. In W. Leal Filho, M. A. P. Dinis, S. Moggi, E. Price, & A. Hope (Eds.), *SDGs in the European Region* (pp. 291–313). Springer International Publishing. https://doi.org/10.1007/978-3-0 31-17461-2_88

Rennstich, J. (2017, August 22). Multilevel Governance as a Global Governanc e Challenge: Assumptions, Methods, Shortcomings, and Future Directions. *Oxford Research Encyclopedia of Politics.* Retrieved 2 May. 2025, from htt ps://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/a crefore-9780190228637-e-558.

République Française. (2021, août 22). *Loi n° 2021-1104 du 22 août 2021 por tant lutte contre le dérèglement climatique et renforcement de la résilienc e face à ses effets*. Vie publique. https://www.vie-publique.fr/loi/278460-loi -22-aout-2021-climat-et-resilience-convention-citoyenne-climat

Rhodes, J. R., Armsworth, P. R., Iacona, G., Shah, P., Gordon, A., Wilson, K. A., Runting, R. K., & Bryan, B. A. (2022). Flexible conservation decisions f or climate adaptation. *One Earth*, *5*(6), 622–634. https://doi.org/10.1016/j. oneear.2022.05.010

Roche, L. R. (2024, April 26). Will the Winter Olympics be rotated between S alt Lake City and other permanent locations? *Deseret News*. https://www. deseret.com/utah/2024/04/26/will-olympics-winter-games-rotation-happen-sal t-lake-utah-ioc/

Roche, M. (2000). *Mega-events and modernity: Olympics and expos in the gro wth of global culture*. Routledge.

Rose, A. K., & Spiegel, M. M. (2011). The Olympic effect. *The Economic Journ al, 121*(553), 652–677. https://doi.org/10.1111/j.1468-0297.2010.02407.x

Sachs, J. D. (2012). From Millennium Development Goals to Sustainable Devel opment Goals. *The Lancet*, *379*(9832), 2206–2211. https://doi.org/10.1016/ S0140-6736(12)60685-0

Samuel, S., & Stubbs, W. (2013). Green Olympics, green legacies? An explorati on of the environmental legacies of the Olympic Games. *International Re view for the Sociology of Sport*, *48*(4), 485–504. https://doi.org/10.1177/1 012690212444576

Sartori, G. (1970). Concept Misformation in Comparative Politics. *American Poli tical Science Review*, *64*(4), 1033–1053. doi:10.2307/1958356

Schakel, A. H. (2020). Multi-level governance in a 'Europe with the regions'. T he British Journal of Politics and International Relations, 22(4), 767-775. h ttps://doi.org/10.1177/1369148120937982 (Original work published 2020)

Shi, L., Han, L., Yang, F., & Gao, L. (2019). The Evolution of Sustainable Devel opment Theory: Types, Goals, and Research Prospects. *Sustainability*, *11*(2 4), Article 24. https://doi.org/10.3390/su11247158

Shilbury, D., O'Boyle, I., & Ferkins, L. (2016). Towards a research agenda in co llaborative sport governance. *Sport Management Review*, *19*(5), 479–491. https://doi.org/10.1016/j.smr.2016.04.004

Smith, A. (2011). Multijurisdictional regulation. In M. Bevir (Ed.) Multijurisdicti onal regulation (pp. 300-312). SAGE Publications Ltd, https://doi.org/10.41

35/9781446200964.n19

Smith, A. (2013). Leveraging sport mega-events: new model or convenient just ification? *Journal of Policy Research in Tourism, Leisure and Events*, *6*(1), 15–30. https://doi.org/10.1080/19407963.2013.823976

SOLIDEO. (2019). *SOLIDEO : Olympic Games delivery authority*. https://library.olympics.com/Default/doc/SYRACUSE/207510/solideo-olympic-games-delivery-authority?_lg=en-GB

SOLIDEO. (2024).*Le Village des athlètes : Un nouveau quartier durable et conf ortable* [PDF]. https://www.ouvrages-olympiques.fr/sites/default/files/fichiers/DP%20SOLIDEO%20VOP_0.pdf

Sørensen, E. (2006). Metagovernance: The Changing Role of Politicians in Proc esses of Democratic Governance. The American Review of Public Administ ration, 36(1), 98-114. https://doi.org/10.1177/0275074005282584 (Original work published 2006)

Spadaro, P. A. (2020). Climate Change, Environmental Terrorism, Eco-Terrorism and Emerging Threats. *Journal of Strategic Security*, *13*(4), 58–80.

Spangenberg, J. H. (2004). Reconciling sustainability and growth: Criteria, indic ators, policies. *Sustainable Development*, *12*(2), 74–86. https://doi.org/10.1002/sd.229

Stockhem, O. (2023, March 7). *CDT joins letter on the proposed French law o n the 2024 Olympic and Paralympic Games*. Center for Democracy & Tec hnology. https://cdt.org/insights/cdt-joins-letter-on-the-proposed-french-law-on-the-2024-olympic-and-paralympic-games/

Sun, Y.-Y., Faturay, F., Lenzen, M., Gössling, S., & Higham, J. (2024). Drivers of global tourism carbon emissions. *Nature Communications*, *15*(1), 10384. ht tps://doi.org/10.1038/s41467-024-54582-7

TAGSOLD, C. (2010). Modernity, space and national representation at the Toky o Olympics 1964. *Urban History*, *37*(2), 289–300. doi:10.1017/S0963926810000362

Tait, R. (2008). *Turkey president accepts invitation to watch Armenia match*. T he Guardian. https://www.theguardian.com/world/2008/sep/05/turkey.armenia

Tauvel, M., Ruhlmann, A., Hippolyte, S., & Mastalerz, S. (2024). *Paris 2024 Olympics: Lessons learned to build the future of mobility*. Arthur D. Little. https://www.adlittle.com/sites/default/files/viewpoints/ADL_Paris_2024_Olympics_2024_0.pdf

Telford, A. (2020). A climate terrorism assemblage? Exploring the politics of climate change-terrorism-radicalisation relations. *Political Geography*, *79*, 102150. https://doi.org/10.1016/j.polgeo.2020.102150

Theodoraki, E. (2007). Olympic Event Organization (1st ed.). Routledge. https://doi.org/10.4324/9780080552552

Trendafilova, S., J. Ross, W., Triantafyllidis, S., & Pelcher, J. (2022). Tokyo 2020 Olympics sustainability: An elusive concept or reality? *International Review for the Sociology of Sport*, *58*(3), 469-490. https://doi.org/10.1177/1012690222111015 7 (Original work published 2023)

UNESCO. (1978). *International charter of physical education and sport*. https://www.icsspe.org/sites/default/files/International%20Charter%20of%20Physical%20Education%20and%20Sport.pdf

UNFCCC. (2015). *The Paris Agreement*. United Nations Framework Convention on Climate Change. https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf

UNFCCC. (2018, December 11). *Sports launch climate action framework at COP24*. United Nations Framework Convention on Climate Change. https://unfccc.int/news/sports-launch-climate-action-framework-at-cop24

United Nations Department of Economic and Social Affairs. (2015). *Issues brief 10 – Regional, national and local level governance for sustainable development*. United Nations. https://sustainabledevelopment.un.org/content/documents/336brief10.pdf

United Nations General Assembly. (2000). *United Nations Millennium Declaration* (Resolution 55/2). United Nations. https://undocs.org/A/RES/55/2

United Nations General Assembly. (2018). *Sport as an enabler of sustainable development* (A/RES/73/24). United Nations. https://stillmed.olympics.com/media/Document%20Library/OlympicOrg/News/2018/12/Sport-as-an-enabler-of-sustainable-development-EN.pdf

United Nations Inter-Agency Task Force on Sport for Development and Peace. (2003). *Sport for development and peace: Towards achieving the Millennium Development Goals*. United Nations. https://digitallibrary.un.org/record/503601?v=pdf

United Nations. (1992). Agenda 21: Programme of action for sustainable development. United Nations Sustainable Development. https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

United Nations. (2008). *Official list of MDG indicators.* https://www.un.org/womenwatch/daw/egm/impact_bdpfa/informational/BP2%20-%20MGDSOfficialList2008.pdf

United Nations. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. United Nations. https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf

Ville de Paris. (2024). *New Adidas Arena opened!*. Retrieved May 23, 2025, from https://www.paris.fr/en/pages/new-adidas-arena-opened-27402

Walker, A. (2014). *How L.A.'s 1984 Summer Olympics became the most successful modern Games*. Gizmodo. https://gizmodo.com/how-l-a-s-1984-summer-olympics-became-the-most-success-1516228102

Waltz, K. N. (1979). *Theory of international politics*. Addison-Wesley. https://dl1.cuni.cz/pluginfile.php/486328/mod_resource/content/0/Kenneth%20N.%20Waltz%20Theory%20of%20International%20Politics%20Addison-Wesley%20series%20in%20political%20science%20%20%20%201979.pdf

Wilson, E. J. (2008). Hard Power, Soft Power, Smart Power. The ANNALS of the American Academy of Political and Social Science, 616(1), 110-124. https://doi.org/10.1177/0002716207312618 (Original work published 2008)

Wolfe, S. D. (2022). Building a better host city? Reforming and contesting the Olympics in Paris 2024. *Environment and Planning C: Politics and Space*, *41*(2), 257-273. https://doi.org/10.1177/23996544221129409 (Original work published 2023)

Wolfe, S. D. (2023). The juggernaut endures: protest, Potemkinism, and Olympic reform. *Leisure Studies*, *43*(1), 1–15. https://doi.org/10.1080/02614367.2023.2195201

Wolfe, S. D. (2024). *The persistent problems of the Olympic Games: A focus o n Paris 2024*. Georgetown Journal of International Affairs. https://gjia.georg etown.edu/2024/08/25/the-persistent-problems-of-the-olympic-games-a-focus-on-paris-2024/

World Commission on Environment and Development. (1987). *Our common fut ure* (Report of the Brundtland Commission). Oxford University Press. http: //www.un-documents.net/our-common-future.pdf

World Economic Forum. (2024). *Global risks report 2024: Executive summary*. https://www.weforum.org/publications/global-risks-report-2024/digest/

Zürn, M. (2012). Global governance as multi-level governance. In D. Levi-Faur (Ed.), *The Oxford handbook of governance* (online ed.). Oxford Academic. https://doi.org/10.1093/oxfordhb/9780199560530.013.0051