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FACULTY OF HEALTH SCIENCES
UNIVERSITY OF OTTAWA**

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**GREEN MEDALS: AN ACTION PLAN TO RAISE AWARENESS ON
ENVIRONMENTAL SUSTAINABILITY IN BRAZILIAN NATIONAL FEDERATIONS**

LEONARDO SANTOS LIMA E SILVA

**TUTORED BY PROFESSOR LUC VANDEPUTTE
UNIVERSITÉ LIBRE DE BRUXELLES**

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ABSTRACT

This research project investigates the level of knowledge and awareness of Olympic sports organisations (OSOs) in Brazil, represented by the National Olympic Committee (NOC) and National Sports Federations (NFs), regarding the perspective and forms of integrating environmental sustainability into the context of sports. Although the concept of sustainable development is not entirely new and has become a frequent topic of discussions, sports organisations in Brazil still lack policies and practical measures aimed at incorporating environmental preservation into their operations. This demonstrates a lack of engagement and perceived value towards an agenda that is widely debated and integrated into the strategic vision of the global Olympic Movement nowadays.

Through the knowledge review and collected data analysis, the objective of this study is to explore the main causes and limitations that lead a portion of Brazilian OSOs to remain indifferent to the environmental cause in their actions and events. In light of this, the study aims to propose recommendations based on the evaluation of best practices adopted by sports organisations that are at the forefront of sustainable development in their respective countries.

The research methodology of this study was based on the review of related knowledge, the application of a questionnaire survey with Brazilian NFs, and the administration of semi-structured interviews with leading Olympic sports organisations and Sustainability Projects to investigate their practices that have proven to be effective, in order to replicate them as recommendations to the NOC and NFs in Brazil.

The results found demonstrate that the NOC has taken important initial steps towards incorporating environmental sustainability into its initiatives, aligning with the IOC's strategic vision on this agenda, similarly to other NOCs and International Federations consulted. On the other hand, the National Federations in Brazil have not yet embraced environmental preservation in their activities due to various factors, mainly related to a lack of awareness, internal engagement, and corporate leadership.

Finally, the conclusion of the research study is presented in the form of recommendations and action plan proposal for the NOC and NFs of Brazil, offering practical alternatives that contribute to the field of research and to the evolvement of the level of awareness within the Olympic Movement in Brazil towards sustainable development.

RÉSUMÉ

Ce projet de recherche examine le niveau de connaissance et de sensibilisation des organisations sportives Olympiques (OSO) au Brésil, représentées par le Comité National Olympique (CNO) et les Fédérations Nationales (FNs), concernant la perspective et les formes d'intégration de la durabilité environnementale dans le contexte du sport. Bien que le concept de développement durable ne soit pas totalement nouveau et soit devenu un sujet fréquent de discussions, les organisations sportives au Brésil manquent encore de politiques et de mesures pratiques visant à incorporer la préservation de l'environnement dans leurs opérations. Cela démontre un manque d'engagement et de valeur perçue envers un programme largement débattu et intégré dans la vision stratégique du Mouvement Olympique mondial de nos jours.

Grâce à la revue des connaissances et à l'analyse des données collectées, l'objectif de cette étude est d'explorer les principales causes et limitations qui conduisent une partie des OSOs brésiliennes à rester indifférentes à la cause environnementale dans leurs actions et événements. En ce sens, l'étude vise à proposer des recommandations basées sur l'évaluation des meilleures pratiques adoptées par les organisations sportives qui sont à la pointe du développement durable dans leurs pays respectifs.

La méthodologie de recherche de cette étude repose sur la revue de la littérature, l'application d'un questionnaire visant à mesurer le niveau de connaissance et de sensibilisation des FNs brésiliennes concernant le programme de durabilité environnementale dans le sport, et la réalisation d'entretiens semi-structurés avec des organisations sportives olympiques de premier plan et des projets de durabilité pour examiner leurs pratiques qui se sont avérées efficaces, afin de les reproduire sous forme de recommandations pour le CNO et les FNs au Brésil.

Les résultats montrent que le CNO a pris des mesures initiales importantes pour intégrer la durabilité environnementale dans ses initiatives, en s'alignant sur la vision stratégique du CIO sur ce programme, de la même manière que d'autres CNOs et Fédérations Internationales consultés. En revanche, les Fédérations Nationales au Brésil n'ont pas encore adopté la préservation de l'environnement dans leurs activités en raison de divers facteurs, principalement liés à un manque de sensibilisation, d'engagement interne et de leadership corporatif.

Enfin, la conclusion de l'étude de recherche est présentée sous forme de recommandations et de proposition de plan d'action pour le CNO et les FNs du Brésil, offrant des alternatives pratiques qui contribuent au domaine de la recherche et à l'évolution du niveau de sensibilisation au sein du Mouvement Olympique au Brésil vers le développement durable.

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To everyone who was part of this journey, I dedicate this achievement. And this is just the beginning.

“If I have seen further, it is by standing on the shoulders of Giants”.

– Sir Isaac Newton.

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1. INTRODUCTION

1.1. Context

As stated in the Strategy Map 2021-2024 of the Brazil Olympic Committee (Brazil NOC, or, simply, BOC), released on March 16, 2021, one of the organisation's fundamental objectives for the Olympic Agenda 2021-2024 is to strengthen the image of the Olympic Movement in the country by including environmental sustainability into NOC's actions. It was the first time ever that the concept of environmental sustainability itself was mentioned in the organisation's Strategy Map (Comitê Olímpico do Brasil, 2021).

Founded on June 08, 1914, the Brazil Olympic Committee is a non-governmental Olympic sport organisation affiliated with the International Olympic Committee (IOC), which works in the technical, administrative, and political management of the Olympic sports in the country. According to its Strategy Map, the NOC has as strategic pillars the promotion of the Olympic Values in Brazil, the strengthening and protection of the Olympic Movement, the guarantee of excellence and competence in the management and governance of sports in its territory, and, finally, the maximization of sporting results.

It is accurate to affirm that since the XXXI Summer Olympic Games Rio 2016, the concept of sustainability in sports has gained wider attention within Brazil's national sports system. Overall, the sports community has adopted a more socially responsible mindset and has become more vocal in demanding environmental protection measures, following the announcements on environmental impact reduction made throughout the Games.

The BOC, for its part, has embraced the cause of sustainability, becoming the first NOC in the Americas to sign the United Nations' Sports for Climate Action (S4CA) Programme, on July 17, 2020, committing to reducing and/or compensating 50% of its greenhouse gas emissions by 2030, and to zeroing them out by 2040 (Comitê Olímpico do Brasil, 2020). Three years after signing this commitment, the BOC was also a pioneer in the Americas by joining the Sports for Nature (S4N) Framework, of the International Union for Conservation of Nature (IUCN), on June 30, 2023, committing to aligning its activities with the cause, in order to contribute to the reduction of environmental impacts (Comitê Olímpico do Brasil, 2023).

Yet as a newcomer in the sustainability field, the Brazil NOC has begun implementing sustainability-related initiatives, including a single-use plastic reduction programme, solid waste separation and management policies within its headquarters, reducing printer use through processes digitization, implementing a two-day-per-week remote work programme, developing an employee education course on environmental sustainability essentials, and more.

From a different perspective than NOCs' roles, it is also interesting to notice efforts, or attempts, on environmental preservation supported by Organizing Committees of Regional, Continental and Olympic Games, as they position themselves as advocates to this cause. For instance, the Organizing Committee of the Paris 2024 Olympic Games presents itself as a mentor for upcoming major Games, willing to drastically reduce their greenhouse gas emissions based on lessons learned from previous Games.

If the Organizing Committee complies with the agreements announced publicly, Paris 2024 will not exceed the "budget" – as themselves name the goal itself – of 1.7 million tons of CO₂ emissions (N. Dienst, 2023). An ambitious goal, compared to London

2012, with the double amount, of 3.4 million tons, and Rio 2016, with 3.6 million tons of overall carbon emissions.

Despite taking long and ambitious paths looking for meaningful environmental sustainability and footprints reduction, the BOC has not yet demonstrated, to date, ways to pave these paths for other national sports organisations that are part of the Olympic Movement in Brazil.

Among these OSOs, mainly the National Sports Federations (NFs), which are the main stakeholders of the BOC in the field of sports development, we still observe a clear absence of social responsibility with the environmental preservation agenda and a lack of required knowledge to the development of an action plan, composed by policies and procedures, in defense of the environment.

1.2. Rationale of the Study

1.2.1. Problem Statement

It is evident that, despite the initiatives implemented by the BOC aimed at reducing and compensating footprints from its operations on the nature, the NOC's Sustainability Programme – launched on June 30, 2023, alongside the announcement of the S4N Framework adherence – still, to date, four years after the NOC joined the United Nations' S4CA Framework, does not count on the engagement of its direct sporting stakeholders, such as National Sports Federations, making its reach and impact limited.

The Brazil NOC recognizes 34 National Federations for Olympic Sports, 5 NFs for Pan-American Continental Sports, 1 NF for University Sports, and 1 NF for School Sports. Among this total of 41 National Sports Federations, a small number of organisations have environmental sustainability as one of the pillars and/or objectives of their strategic plan – and an even smaller group of these comprise a programme, with defined guidelines, or simply policies focused on the environmental preservation agenda, as the data analyzed demonstrate in the following chapters of this research.

This reality can be defined as a choice to not give due relevance to the subject, as a perception of not appraising real value and benefits on joining this cause, or simply not having access to guidance and mentorship required to implement policies and practical actions in the daily operations of these OSOs.

Furthermore, the Brazil NOC's Sustainability Programme, launched in June 2023, as well as its continuous initiatives focused on environmental preservation have not yet been published onto the IOC's Sustainability Case Studies Portal as of the date of this paper. These case studies promoted by the IOC serve not only as a means to fostering best practices and initiatives on environmental sustainability implemented by Olympic Sport Organisations, but also as important sources for other organisations in order to draw inspiration from and gain insights to incorporate into their strategic plans.

The reasons for this omission are not clear, however, it is conceivable to believe that, by not being publicly recognized and promoted by the highest authority of the Olympic Movement worldwide toward its stakeholders, the NOC's Sustainability Programme lacks engagement and credibility from the perspective of its National Sports Federations – missing a great opportunity to create and strengthen collaborative bonds in order to expand its reach.

Accordingly, this research study investigates the strategy adopted by the Brazil Olympic Committee on Environmental Sustainability in Sport, by approaching its Sustainability Programme's design, defined goals, and expected deliveries. The study

also addresses the programme's limitations, as well as exploring potential benefits of practical solutions being implemented by the NOC that could be replicable by NFs – mainly through the development of a toolkit aimed at capacitating and empowering these organisations to join the programme's vision and mission, transforming words into action, and guidelines and recommendations into strategic implementation.

This research study is divided into five chapters. Chapter 1 comprises the presentation of the context, problem identification, research field, its objectives, and the relevance of the study.

The chapter 2 focuses on the literature review, encompassing the areas of knowledge and evaluating existing literature, evidence, and data available on the specific research areas of the study.

The chapter 3 explores the research methodology, defining participants sampling, data collection methods, and analysis techniques.

The chapter 4 presents the research results and discusses key findings.

Finally, chapter 5 presents the conclusion of the study, highlighting the main recommendations identified and extracted during the research process.

1.2.2. Research Objectives

- ✓ To explore the conceptions of National Sports Federations in Brazil in terms of knowledge and awareness on environmental sustainability in sport, and their impressions regarding the type of leadership performed by the NOC, as the highest authority of the Olympic Movement in Brazil, on this agenda.
- ✓ To identify key elements to encourage National Sports Federations in Brazil to join the NOC's Sustainability Programme strategy and provide insights to the BOC on the development of a comprehensive action plan tailored to NFs' structures, in order to raise awareness and promote the engagement to a sustainable development.

1.2.3. Significance of the Study

The research study holds relevant significance to the development of the sporting ecosystem in Brazil, particularly through its approach to the widely debated topic of Environmental Sustainability in Sport. This theme is one of the core pillars of the NOC's Strategy Map for the Olympic Agenda 2021-2024, which, under its objective 2.1, stipulates the inclusion of sustainability standards in actions aimed at promoting the Olympic Movement in Brazil (Comitê Olímpico do Brasil, 2021).

This research also contributes to fostering environmental awareness among Olympic Sport Organisations in Brazil, as outlined by the International Olympic Committee in the Olympic Agenda 2020: 20+20 Recommendations to Shape the Future of the Olympic Movement framework (International Olympic Committee, 2014). According to the recommendation number five of these guidelines, the IOC embraces the adoption of sustainability principles within the Olympic Movement's daily operations, by developing recommendations, providing tools and mechanisms to assist in implementing initiatives and ensuring knowledge exchange between Olympic stakeholders.

While the IOC seeks to engage and motivate its affiliated Olympic Sport Organisations to join this agenda and support best practices on sustainability, it is expected that International Federations and National Olympic Committees align themselves to its vision and perform the same sort of leadership within their sporting ecosystems.

In addition, this study contributes to providing insights to sports organisations with regard to social responsibility on environmental preservation issues. Since greenwashing and other attempts to exploit environmental issues for self-promotion are increasingly exposed today, organisations shall take precautions and firmly position themselves on this cause in order to anticipate risks related to boycotts and defamation campaigns. To enhance social responsibility among OSOs in Brazil, the research findings will be shared with the Brazil Olympic Committee, National Sports Federations and Olympic Solidarity.

Finally, this paper supports sports organisations in Brazil to be aligned with the NOC's vision and mission, and, therefore, complying with the IOC goals on sustainability.

CHAPTER 2

2. KNOWLEDGE REVIEW

2.1. Global Context of Environmental Sustainability

The discussions around sustainable development are not recent. The concept of “sustainability” was defined and presented to the world for the first time by the World Commission on Environment and Development, created by the United Nations (UN), in the document titled “Our Common Future,” published in 1987, which later became known as the Brundtland Report. The document addresses the proposal of integrating environmental protection with global economic development through strategies of sustainable, viable, and durable development – that is, a sustainable development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987).

Bringing it into a social reality, the document presents environmental sustainability as the social and individual act of developing by using existing natural resources without depleting them, so that future generations can also have access to these resources.

Over the years, this concept has been explored and improved. In 1997, the Kyoto Protocol was the first international agreement to establish, through the UN's Framework Convention on Climate Change, the commitment of industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions, following agreed individual targets, by adopting policies and measures on mitigation (United Nations Climate Change, 1997). The agreement was signed by 84 countries and set targets, including a 5.2% reduction in GHG emissions, compared to 1990 levels, during the period from 2008 to 2012. The protocol also encourages the creation of sustainable development methods to preserve the nature.

In Brazil, the vision of sustainable development was introduced into popular consciousness for the first time in 1992 when the city of Rio de Janeiro hosted political leaders, diplomats, scientists, representatives of the media, and NGO organisations from 179 countries for the UN's Conference on Environment and Development 1992 (United Nations Climate Change, 1993).

However, it was more recently, in 2012, when hosting the UN's Conference on Sustainable Development, also known as Rio+20, that the principles of environmental

sustainability were truly presented to the Brazilian society through extensive media coverage and political appeal. At its conclusion, the Rio+20 Conference delivered a document containing practical measures for implementing sustainable development and launched an action plan for developing its Sustainable Development Goals (SDGs), which converged with the post-2015 United Nations' Agenda 2030 for Sustainable Development (United Nations Climate Change, 2012). This agenda is based on its 17 SDGs and encompasses documents, guidelines, and action plans to achieve sustainable development on a global level – which also share notable principles with the recent ESG agenda. Among the 17 SDGs established, 8 goals stand out with a direct relation to environmental sustainability.



Figure: United Nations' Sustainable Development Goals (SDGs). Font: United Nations website.

Each SDG has its relevance in the social context of member countries. It is important to highlight, however, that each of these goals, listed from number 1 to 16, can only be achieved and reflect a significant positive impact if they count on the last, but no less important, goal number 17: Partnerships for the goals. Partnerships are essential to extend the reach and social engagement in policies. This study investigates, through findings and recommendations in the next chapters, the importance and benefits of well-constructed partnerships between Olympic sports organisations and stakeholders for achieving goals aimed at sustainability and environmental preservation.

In addition, the importance of establishing partnerships was also reaffirmed through the resolutions of the Paris Agreement, which entered into force in 2016. Following the UN's Climate Change Conference 2015 (COP-21) held in Paris, targets were set to hold the increase in the global average temperature to below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above these levels (United Nations Climate Change, 2016). The agreement works on a five-year cycle of climate actions carried out by countries and requires joint efforts by all signatories, so that their nationally determined contributions result in positive and significant global impacts.

Finally, the Agenda 2030 advocates for sustainable development through different dimensions (United Nations, 2015), as listed below, and the main aspects that connect the UN's Agenda 2030 with the IOC's Olympic Agenda 2020+5 are investigated in the following section of this chapter.

- I. People, who are responsible for putting sustainable actions into practice.
- II. Planet, as an asset to be environmentally preserved and protected.
- III. Prosperity, as an equitable social goal to be ensured.
- IV. Peace, through the promotion of peaceful, just, and inclusive societies.
- V. Partnerships, for mobilizing the necessary resources with the support of organisations, institutions, and countries.

2.2. National Context of Environmental Sustainability in Brazil

In Brazil, environmental education became mandatory in schools in 1999, by virtue of law no. 9.795, which in its article 2 states that “environmental education is an essential and permanent component of national education, and should be present, in an articulated manner, at all levels and modalities of the educational process, in both formal and non-formal education” (Congresso Nacional do Brasil, 1999).

The Brazilian environmental legislation was created with the intention of protecting the environment and minimizing the consequences of human actions on it. Environmental protection is a principle expressed in the Federal Constitution, which in its article 225 provides the “recognition of the right to a healthy environment as an extension of the right to life, whether through the aspect of physical existence and health of human beings, or through the dignity of this existence, measured by the quality of life” (Constituição da República Federativa do Brasil, 1988). This recognition imposes on the government, businesses, and society the responsibility for environmental protection in accordance with the laws and resolutions in force in Brazil.

The first environmental law was established in Brazil in 1981 through the National Environmental Policy. Over the years, recognizing the need to consolidate a comprehensive system of environmental protection – primarily due to internal and external pressures from environmental protection organisations – new laws were established. These laws prohibit, for example, the hunting, maintenance, and commercialization of wild animals, as well as off-season fishing. They also regulate the extraction of valuable woods and native trees, the exploitation of mines, and the conservation of portions of native vegetation on private properties.

Brazil is the most biodiverse country on the planet. The Brazilian biomes, which include the Amazon, Atlantic Forest, Caatinga, Cerrado, Pantanal, and Pampa, possess a vast diversity of fauna and flora. The Amazon, for example, with most of its territory located in Brazil, is one of the world's major ecosystems. Its biodiversity and existence ensure the regulation of climate, rainfall, and air quality on a global scale.

Even though environmental education has become mandatory in schools, the Federal Constitution provides an environmental legislation aimed at protecting the nature and reducing the impacts of human actions, and federal laws impose fines on those who violate the guidelines on biomes preservation, these biomes are more threatened than ever before in Brazilian history.

The Amazon covers an area of 6.74 million square kilometers, with most of its biome (60.1%) located in Brazilian territory. To illustrate its vastness, if Amazon were a country, it would be the seventh-largest country in the world (WWF, 2023). However, over the past few decades, between 1985 and 2020, nearly 30% of its original forest cover has been lost – for comparison purposes, this area is equivalent to the entire national territory of Chile (Mapbiomas Amazônia, 2023).

Between 1985 and 2020, Brazil registered a 656% increase in mining activities, a 130% increase in urban infrastructure, and a 151% increase in agriculture and livestock. Although the country registered an 8% decrease in pollutant gas emissions in 2022 (SEEG, 2023), these numbers represent the third-highest level since 2005.

These factors demonstrate that, although Brazil is an international reference in the availability of natural resources, it still lacks effective policies and quality education aimed at promoting environmental sustainability awareness. Additionally, there is a notable misalignment of social values with the international agreements to which the country is a signatory. As shown in recent environmental reports, the exploitation of resources by this generation is definitely compromising the ability of future generations to use them.

2.3. Environmental Sustainability in Olympic Sport Organisations

By successfully integrating environmental preservation with the strategic vision of the business, organisations initiate to adopt more sustainable practices and promote the protection of environmental ecosystems. To keep this mechanism functioning, stakeholders of the organisations need to be involved and engaged – from internal clients, such as employees, to external partners, such as affiliated organisations, commercial partners, and communities.

With the organization of increasingly larger sporting events, in terms of infrastructure and investments, the relationship between environmental sustainability and the role of sports organisations has become a topic of growing discussion in society.

In the context of OSOs, environmental sustainability goes far beyond addressing climate change and carbon emissions. The implementation of sustainable practices in the management of organisations represent the rational application of resources to save costs, reduce the use and waste of materials, strengthen corporate image, and create conditions to promote the workforce training, among other benefits. An administration that has environmental sustainability as one of its strategic pillars tends to be an administration that presents good results in innovations.

As the highest authority of the Olympic Movement, the IOC recognizes its social responsibility in this context. Consequently, the organisation has been actively promoting the environmental agenda within the Olympic sports community over the past few years. The Olympic Agenda 2020 has become directly aligned with the UN's SDGs, and the IOC's Sustainability Strategy has incorporated 18 sustainability objectives.

Launched in 2014, the Olympic Agenda 2020 is a set of 40 recommendations established by the IOC to be followed by OSOs, as a way to promote the Olympic Movement and its mission to foster sports practice, protect, and disseminate the Olympic values worldwide. Sustainability is one of the pillars of the Olympic Agenda 2020, and two of its recommendations address this subject (International Olympic Committee, 2014).

- ✓ Recommendation no. 4 encourages the inclusion of sustainability in all aspects of the Olympic Games.

- ✓ Recommendation no. 5 advocates for the inclusion of sustainability within the Olympic Movement's daily operations.

In 2015, the UN highlighted the relevance of sport as a facilitator for achieving its SDGs, which reinforced the IOC's vision to make environmental sustainability an integral part of its operations (United Nations Climate Change, 2012). As a result of this alignment, the IOC developed its Sustainability Strategy, launched in 2017, which organizes the institution around three spheres of responsibility: the organisation, the owner of the Olympic Games and the leader of the Olympic Movement (International Olympic Committee, 2021). The SDGs also supported the definition of the IOC's strategic intents for each of its spheres of responsibility until 2030 – accordingly, they represent the IOC's vision of what the sustainable future of the organisation, the Olympic Games, and the Olympic Movement should look like (International Olympic Committee, 2017).



Figure: IOC Sustainability Strategy framework. Font: IOC Sustainability Strategy Guide.

In 2018, following the invitation by United Nations Climate Change, the IOC joined the Sports for Climate Action (S4CA) framework and encouraged NOCs to join the movement as well. By March 2023, the S4CA framework had 93 signatory OSOs for the programme. Despite the significant number of signatories, the adherence of South American countries has been progressing very slowly. To date, only four South American countries have a sustainability strategy, and only four NOCs have joined the S4CA framework (International Olympic Committee, 2024).

As the latest update before the Tokyo 2020 Olympic Games, and moving towards Paris 2024, the IOC Session unanimously approved, on 12 March 2021, the Olympic Agenda 2020+5 as the new strategic roadmap of the IOC and the Olympic Movement through to 2025. The document presents 15 new recommendations based on key trends identified as likely to be decisive in the post-COVID-19 world (International Olympic Committee, 2021). Among the recommendations, the document includes one that is essentially dedicated to promoting environmental sustainability in society through sport, demonstrating a constant integration between the IOC's vision and the UN's Agenda 2030 and SDGs.

Even though the IOC's Sustainability Strategy aims to “ensure the Olympic Games are at the forefront in the field of sustainability” and that the UN has highlighted the contribution of the Olympic Games to its SDGs, there is a notable absence of systematic studies that interrogate such claims. In an article published by the Nature Sustainability journal, the Summer and Winter Olympic Games editions from 1992 to 2020 were individually compared in terms of ecological, social, and economic

sustainability indicators. According to Müller, Wolfe, and Gaffney (2021), among the 16 editions of the Olympic Games analyzed, four of the last five editions present the worst evaluation scores, demonstrating a trend that the OSOs participating in the Paris 2024 Olympic Games need to work hard, through concrete actions, to interrupt.

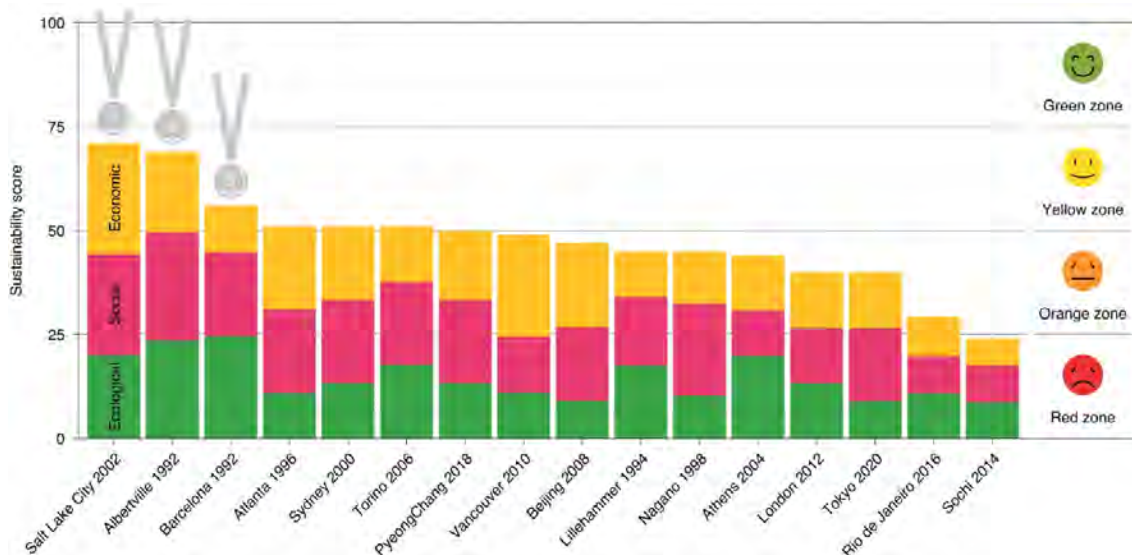


Figure: Sustainability score of individual Olympic Games compared between 1992-2020. Font: Nature Sustainability journal.

Given the real need for a change in attitude and actions related to the footprints of the sports business on the environment, some joint initiatives emerge as good examples of partnerships to combat nature degradation, and especially as good models of planning and cooperation between OSOs, such as the ASAP Project.

According to IOC Sustainability Essentials (2018) practical guide, environmental “sustainability goes much further than individual projects. It is about looking closely at what you do as an organisation, the way you interact with society at large, and ensuring you have appropriate governance structures, policies and processes in place that will secure your long-term future for the benefit of your organisation, society and the environment”. Following this rationale, the ASAP Project is structured as a joint initiative between the NOCs of Czech Republic, Hungary, Slovakia, Denmark, Finland, and Germany, which seeks, through a mentor-mentee working method, to integrate environmental sustainability across the core of NOCs’ operations (ASAP Project, 2020).

Through the implementation of guidelines and recommendations into a practical hands-on approach, and by giving this approach a strategic framework (ASAP Project, 2020), both for mentee-NOCs and mentor-NOCs, the project highlights the importance of well-structured partnerships between OSOs that share the same vision of sustainable development. Given this model of collaboration, it is worth considering whether other sports organisations, such as the Brazil NOC, could draw inspiration from this framework and act similarly with regional NOCs, such as those from South American countries, and, naturally, with NFs, to promote the environmental agenda, create bonds through the education of partner OSOs, and achieve more significant results in their countries and continents.

2.4. Environmental Sustainability in the Brazil Olympic Committee

The Brazil Olympic Committee is a centennial non-governmental organisation affiliated with the IOC whose purpose is to lead the technical, administrative, and political management of Olympic sports and the Olympic Movement, in addition to representing Olympic athletes, in its national territory.

According to the Brazil NOC's Strategy Map for the Olympic Agenda 2021-2024, the organisation has four fundamental strategic pillars, which are based on culture and education in sport, strengthening the image of the Olympic Movement, management and governance, and sporting results (Comitê Olímpico do Brasil, 2021).

Each of its fundamental pillars unfolds into a series of strategic objectives that shape the organisation's Strategy Map. The second pillar of the map, which is based on strengthening the image of the Olympic Movement, comprises five strategic objectives, and the first of them is the "inclusion of sustainability standards in actions aimed to promote the Olympic Movement in Brazil" (Comitê Olímpico do Brasil, 2021). Based on this strategic objective, the NOC's Sustainability Programme was developed in 2023.

As mentioned in the previous chapter, the Brazil NOC became the first NOC in the Americas to sign the UN's S4CA framework, on July 17, 2020, committing itself to reducing and/or offsetting 50% of its greenhouse gas emissions by 2030, and to achieving net zero emissions by 2040 (Comitê Olímpico do Brasil, 2020). Three years later, on June 30, 2023, the BOC joined the IUCN's S4N framework, committing to aligning its actions with efforts that contribute to reducing carbon footprints. On the same date, the NOC launched its Sustainability Programme (Comitê Olímpico do Brasil, 2023).

Following these new commitments and the programme's implementation, the NOC hired, in 2023, a consulting company to assess the emissions of BOC's daily operations during 2021. The Greenhouse Gases Emissions Report 2021 proved that, throughout 2021, the NOC emitted around 2,820.8 tons of CO₂ in the environment, with 69% out of this total under the scope 3, which corresponds, mainly, to transportation services, such as daily commute and business travels (Brazil Olympic Committee, 2023).

Scope 1	Scope 2	Scope 3
478,2 (17%)	408,93 (14%)	1.933,7 (69%)
2.820,8 tons CO₂eq		

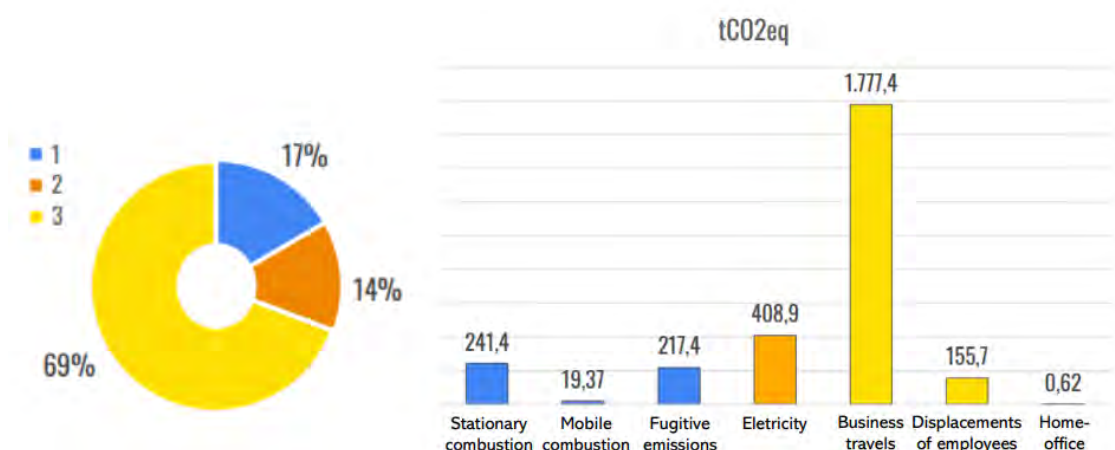


Figure: Brazil NOC's Greenhouse Gases Emissions Report 2021. Font: BOC database.

Aiming to comply with the goals established under the S4CA framework, regarding the reduction and/or compensation of carbon emissions by up to 50%, the Brazil NOC has begun implementing sustainability-related initiatives into its daily operations, as exemplified in the previous chapter. Additionally, the NOC launched its Olympic Forest Project, designed within the IOC Olympic Forest Network framework, in partnership with the Mamirauá Institute of Sustainable Development, located in the Amazon Forest of Brazil.

The project's objective is to monitor and restore 10 hectares from the Tefé National Forest biodiversity, a protected area located in the heart of the Amazon biome, with the planting of around 5,000 native trees in cooperation with local rivermen communities. It aims to compensate 5,000 tons of CO₂ emissions until the end of 2024, and the investment foreseen is around US\$ 200,000 from 2023 to 2030 (Brazil Olympic Committee, 2023).

The NOC believes that the ongoing sustainability-related initiatives, such as single-use plastic reduction, policies on solid waste management within its headquarters, printer use reducing through processes digitization and, especially, the Olympic Forest Project, will achieve significant results as the NOC's efforts to combat carbon emissions numbers in the next years.

However, would not the NOC's Sustainability Programme be able to achieve even more significant results and impacts, in short and long terms, if it counted on the adherence and engagement of at least a portion of the existing 41 National Sports Federations in Brazil, which, for the most part, receive funding from the NOC to conduct their operations? The criteria for financial resources distribution in force in Brazil's sports policy comprises mechanisms aimed at motivating and rewarding National Federations for their practices in contexts beyond sports.

The Brazil NOC's GET Programme is the initiative developed by the BOC aimed at diagnosing and strengthening corporate governance areas of National Sports Federations. The main focus of the programme is on the fields of Governance, Ethics, and Transparency (GET) of these sports organisations, and it is responsible for assessing their levels of maturity, providing personalized support, guidance on performance indicators, and training webinars for the staff involved. Initially, six areas of knowledge were monitored, including sports management, governance, strategy, transparency, processes, and compliance. Over the years 2022 and 2023, new areas were incorporated, such as women in sport, communications/marketing, and education/safeguarding. The assessment of these corporate governance areas results in a score for each of the 38 signatory NFs, out of the total of 41 NFs, and this score is one of the 12 items evaluated on the NOC criteria for the annual budget distribution toward National Federations (Comitê Olímpico do Brasil, 2024).

Could not environmental sustainability, as one of the key objectives set out in the NOC's Strategy Map for the Olympic Agenda 2021-2024, be one of these areas of knowledge to be evaluated in order to monitor the efforts of National Federations? Finally, it is necessary to take a step back and reflect about the role of the NOC – and if it, as the highest authority of the Olympic Movement in Brazil and following the IOC's Sustainability Strategy, shall act in the sense of mentoring and providing the necessary tools for the development of National Federations on environmental sustainability in sport, before rewarding them.

2.5. Conclusion

From the analysis of different types of bibliographic sources, including reports, articles, resolutions, and guides, on the relationship between the sports business and the environment, it becomes evident that environmental sustainability is a broad concept, encompassing various areas and forms of application. As the sustainable development agenda has emerged over the years, OSOs have begun to recognize their social responsibility to reconcile the institutional strategic vision with environmental preservation.

In the Brazilian context, although the country is an international reference in terms of the availability of natural resources, it is evident that its society lacks public policies and education aimed at promoting environmental sustainability awareness. Thus, there is a clear misalignment between social values and those advocated in international agreements to which the country is a signatory, demonstrating a contradiction in attitudes that definitively compromises the ability of future generations to use natural resources.

Regarding the role of sports, it is a powerful tool for promoting positive changes in societies. On the other hand, recent studies also make it evident that the sports business often leaves footprints on the environment. Therefore, it is essential that OSOs become committed to making their operations more sustainable and to raising awareness among their stakeholders about the importance of adopting more responsible environmental practices.

It is also clear that the alignment between the UN's Agenda 2030 for Sustainable Development, the IOC's Agenda 2020+5, and joint initiatives, such as the UN's Sports for Climate Action and the IUCN's Sports for Nature, demonstrates that international institutions have recognized their social responsibility and found a common language to address environmental preservation.

Finally, it is evident that the Brazil NOC is making progress in the field of nature preservation, following the IOC's strategy. However, given the commitments made, with reporting deadlines rapidly approaching and results subject to examination by stakeholders, there remains the question of whether "making progress" should give place to "paving the way of progress" for other partners. It is essential that the NOC, performing its role as an authority in Brazil, convenes and assists NFs to join the cause, thereby increasing its reach and positive impact. This would demonstrate that the adoption of the cause is genuine, and not just a notorious attempt at greenwashing, which is often seen in companies trying to convey a positive, yet questionable, image of environmental responsibility.

Among the limitations encountered during the literature review of this study, the most notable is the absence of impact reports on actions conducted by Organizing Committees of Olympic Games and Pan-American Games editions aimed at reducing carbon emissions in their operations, compared to the commitments made during their bidding and planning phases. In addition, no documents were found on the Brazil NOC's website that provided information about the framework and guidelines of the BOC's Sustainability Programme. This gap was overcome through partnerships and direct contact with the NOC's Olympic Values department, which is responsible for managing the programme internally, and the IOC's Sustainability department, which is involved in receiving programme reports, to collect more information about the numbers of the programme's actions.

CHAPTER 3

3. THEORETICAL FRAMEWORK AND METHODOLOGY

3.1. Research Design

The research methodology of this study was designed to investigate the level of awareness and engagement of National Sports Federations in Brazil with the environmental preservation agenda in sport promoted by the IOC and, in the national context, by the Brazil NOC. In order to relate the value employed by Brazilian sports organisations to environmental sustainability strategies, the study also aimed to explore the main objectives and limitations of the Sustainability Programme developed by the Brazil Olympic Committee, as well as its engagement strategy – particularly toward National Federations affiliated with the NOC.

According to Taherdoost (2021), different types of research should be considered in a study based on a range of criteria, including the application of the study, its objectives, and the information sought. Building upon this concept, this chapter describes the theoretical framework and methodological procedures adopted for conducting data collection methods based on the questions sought to be answered, the audience required to be involved, and the type of data to be collected, in order to ensure robustness and validity of the key findings and conclusions.

In addition, as stated by Webster and Watson (2002), an effective and well-conducted research methodology should comprise multiple data collection techniques in order to create a firm foundation for advancing knowledge and facilitating theory development. Accordingly, with the objective of gathering relevant information about the phenomenon being analyzed in this project, two different data collection techniques were used to aggregate different types of data and combine them through a mixed-method approach, aiming to analyze the research subject in greater depth. Below, the methods used to collect data are detailed.

3.2. Data Collection Methods

3.2.1. Questionnaire Survey with National Sports Federations

The process of data collection was based on two different research methods. Firstly, in order to gather relevant data on the relationship between stakeholders in the Brazilian Olympic sports system and the globally emerging environmental sustainability agenda, a survey was administered with the National Sports Federations of Brazil with the objective of conducting an in-depth diagnosis on how these federations, as key sporting partners of the Brazil Olympic Committee, address and incorporate environmental preservation actions into their organizational strategies. To obtain this data, a structured survey was developed by the researcher in partnership with the Olympic Values department of the Brazil NOC, a Brazilian specialist in the field of environmental sustainability, and the project tutor, and administered online with technical and administrative managers from National Federations, who are part of, and act as points of contact for, the NOC's GET Programme within their NFs.

According to Taherdoost (2021), quantitative research is the method of employing numerical values derived from observations to explain and describe a phenomenon. It aims to define a particular structure by collecting numerical data, such as quantifying how many and determining what percentage, to address specific questions and make generalizable conclusions through empirical analysis.

The data collected by the researcher, through the survey conducted with the target group of OSOs, was able to provide enriching insights into how the NFs integrate, or fail to adopt, the environmental preservation agenda in their operations. This diagnosis was obtained from the analysis of responses to the survey questions, which were

originally developed by the researcher and applied in Brazilian Portuguese, as it is the native language of the target group.

3.2.2. Interviews with Leading Sports Organisations and Sustainability Projects

In parallel, a second research method was applied for data collection in this study, aiming to associate the numerical results obtained through quantitative research, by administering a questionnaire survey, with the advantages of qualitative research method, through conducting interviews. By integrating these two different types of research techniques, the researcher was able to employ a combination of both based on the nature of the phenomenon under study and the research questions to be answered, aiming to provide a comprehensive understanding of the findings.

Using this methodology, empirical data and relevant information were collected on how other leading Olympic sports organisations approached the same issue, concerning the lack of adherence and engagement of their stakeholders, through semi-structured interviews administered online and in person with leaders of sports organisations and sustainability projects internationally recognized.

According to Braun and Clarke (2006), the thematic analysis technique aims to find, analyze, and report patterns in the collected data, providing new insights and improving understanding of the context. Following this concept, the interviews conducted were recorded and transcribed, with the consent of the interviewees, and the textual data collected were interpreted thematically and comparatively. The interviews were conducted in English and Brazilian Portuguese, according to the native language of each interviewee, and artificial intelligence (AI) tools were also used to assist in brainstorming ideas, organizing theories, cross-referencing textual data, and refining the language used in order to contribute to the overall quality of this paper.

The semi-structured questionnaire for interviews was developed by the researcher in consultation with the project tutor, directly related to the overall research issue of this study. At the same time, it aimed at investigating performance indicators of the target organisations as a form of benchmarking – allowing the identification of best practices, possible solutions, and insights into how the issue has been addressed in the organisations consulted and which could be replicated in the Brazilian Olympic sports system.

The interviews were conducted with international experts from different leading sports organisations and distinctive sustainability projects, who have proven knowledge and that are deeply involved in leadership positions in initiatives focused on implementing sustainability standards in the sporting industry. The definition of criteria and the selection process for interviewees are explained next.

3.3. Sampling and Participants

The process of defining the target audience for data collection followed strategic criteria related to the structural and hierarchical organization of the national and international Olympic system. In Brazil, the BOC also acts as the body responsible for the decentralization of government funds aimed at investment in national Olympic sports, through its National Federations, based on pre-established evaluation criteria. As direct beneficiaries of these investments, the NFs are the main sporting partners of the NOC. Among these organisations, those with the best recent sports results in Olympic, Pan-American, and World Championship competitions, as well as the best administrative results in good governance, accountability of government funds, and the final score achieved through the NOC's GET Programme diagnosis, earn the right to receive higher

amounts of government resources from the NOC for investment and composition of their annual budgets (Brazil Olympic Committee, 2021).

On the international level, the IOC, as the highest entity representing the global Olympic Movement, has as its main sporting partners a wide range of organisations, including International Federations (IFs), National Olympic Committees (NOCs), Organizing Committees for the Olympic Games (OCOGs), and other non-sport partner organisations that establish bilateral relations with the IOC and contribute to promote all the values and focus areas related to sports.

Having the National Federations as the main sports partners of the NOC, in Brazil, and a diverse range of sporting and non-sporting entities acting as key partners of the IOC, internationally, some organisations from these two groups were selected as a sample for data collection, through the administration of surveys and interviews.

For the application of the questionnaire survey, in order to investigate and explore the level of awareness and engagement of National Federations in Brazil in terms of environmental sustainability in sport, a survey composed of 20 questions was administered aimed at reaching 38 signatory NFs of the Brazil NOC's GET Programme – whose framework aims to diagnose and strengthen corporate governance within NFs, including areas of sports management, governance, strategy, transparency, processes, compliance, women in sport, communications & marketing, and education & safeguarding. Among the 38 NFs participating in the programme's framework, 33 responded to the survey questionnaire within a 15-day data collection period, achieving an 86% engagement rate from the target audience. Based on the collected data, it was possible to conduct a diagnosis of the level of engagement of Brazilian NFs regarding environmental preservation, and to establish a starting baseline for the development of recommendations targeted at reaching these organisations and the NOC itself.

On the other hand, the conduction of semi-structured interviews was focused primarily on collecting relevant information from partner organisations of the global Olympic Movement regarding the environmental preservation issue. The interviews included the participation of NOCs (such as Brazil and Spain NOCs), IFs (such as the Biathlon IF), the IOC itself, and joint-Sustainability Programmes (such as the IUCN's Sports for Nature, which the IOC, NOCs, and IFs are signatories to, and the ASAP Project, which involves the collaboration of six European NOCs and is aimed at promoting environmental sustainability in sports). With the cooperation of key stakeholders of the global Olympic Movement, in the field of environmental sustainability, it was possible to obtain valuable insights from different perspectives of leading sports organisations and prominent sustainability initiatives.

It is worth noting that one of the main selection criteria for organisations to be part of this focus group was based on the fact that all these entities were shortlisted by the IOC for the IOC Climate Action Awards 2023, due to their initiatives and efforts towards environmental preservation in their countries and sports (International Olympic Committee, 2023). It is also worth mentioning that the researcher sought the participation of representatives from the OCOGs of Paris 2024 and Los Angeles 2028 as interviewees, however, it was not possible to reach them due to scheduling conflicts in view of the imminent start of the Paris 2024 Olympic Games. The interviewed organisations are listed below:

#	Organisation	Position	Name
1	IOC	Sustainability Manager	Mr. Fabrizio D'Angelo
2	Brazil NOC	Sustainability Manager	Mrs. Carolina Araújo

3	Spain NOC	Marketing & Sustainability Director	Mr. Manuel Parga Landa
4	Biathlon IF	Head of Strategy, Sustainability & Governance	Mrs. Riikka Rakic
5	ASAP Project	Sustainability Manager	Mrs. Veronika Zemanova
6	Sports for Nature	Engagement Officer	Mrs. Jana Janotova

CHAPTER 4

4. OBTAINED RESULTS AND DATA ANALYSIS

4.1. Diagnosing National Sports Federations in Brazil

Considering the results achieved through the survey conduction with National Sports Federations of Brazil, it was possible to gather relevant information about the general profile of the Brazilian NFs, the ways in which they are addressing and seeking to incorporate environmental sustainability to their operations, the challenges that these organisations encounter when trying to connect business and sustainable development, the benefits and risks of adopting a posture in favor of environmental preservation, the NFs' perceptions about the role performed by the NOC in environmental issues as the leader of the Olympic Movement in Brazil, and the types of support they expect from the BOC.

4.1.1. Profile Identification

Unlike the Brazil NOC, which has approximately 317 full-time paid employees, its own administrative headquarters and training center, and 20 sponsors investing in its brand in view of the Paris 2024 Olympic Games (Quintino, 2024), the Brazilian NFs are smaller Olympic sports organisations, with a limited workforce and lower levels of government and private investments.

Among the 33 National Federations consulted, which corresponds to 86% of the total number of NFs linked to the NOC through the GET Programme, 24 NFs reported (77%) having fewer than 60 full-time and part-time employees combined in their workforce, including employees, service providers, interns, volunteers, and others. Additionally, the vast majority of NFs in Brazil rely solely on government funds transferred by the NOC for the investment in their projects, without any other forms of private funding.

Regarding the relationship of National Federations with the environmental sustainability agenda in sports, 21 NFs declared (68%) that environmental preservation is not one of the values and/or objectives included in their Strategic Plans for this Olympic cycle. By comparison, environmental sustainability was first included in the Brazil NOC's Strategic Planning in March 2021 (Comitê Olímpico do Brasil, 2021).

Regarding the implementation of a Sustainability Strategy (or Sustainability Programme) of their own, 26 NFs (84%) claim not to have an environmental sustainability strategy. Among these, only 6 NFs (20%) stated that they have an ongoing internal planning for its development, while 19 NFs (64%) stated that their organisations are not, or cannot confirm whether they are, planning or developing their own sustainability strategy. This demonstrates a slow progress and low adherence to the environmental agenda by the NFs in Brazil, compared to the vision of the NOC and the Olympic Movement.

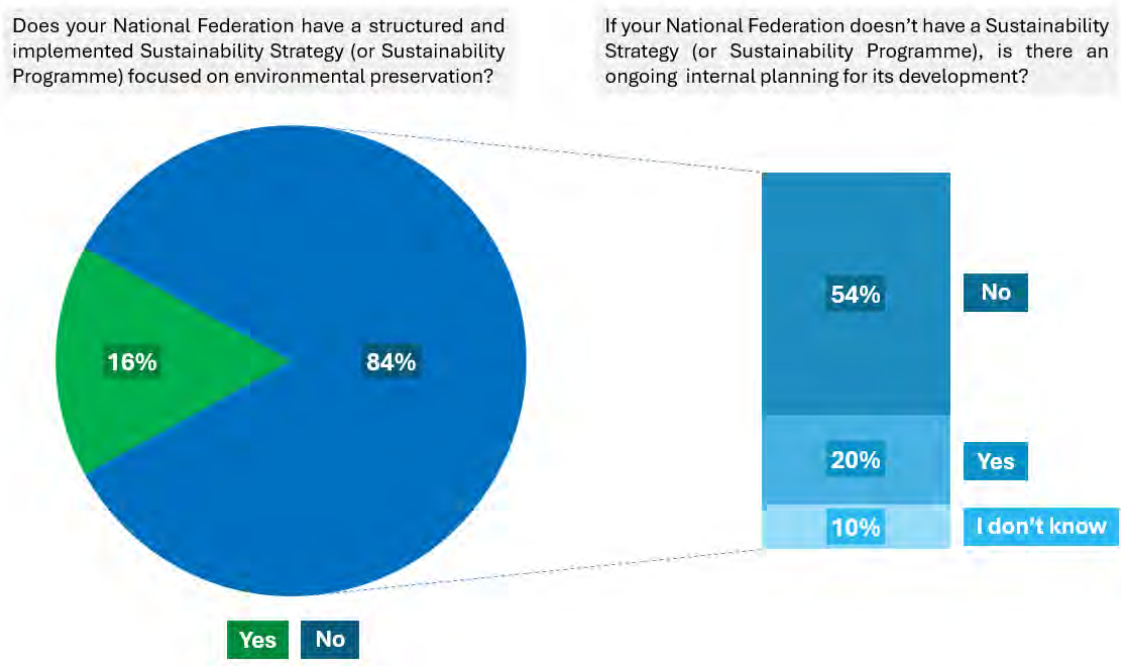


Chart: Level of awareness of Brazilian National Federations in sustainability strategies.

4.1.2. Implementation of Sustainability Policies and Practices

From the perspective of the Head of Strategy, Sustainability and Governance of the International Biathlon Union (IBU), Riikka Rakic, as stated in the interview conducted on March 20, 2024, the adoption of sustainability practices in sports is more than an emerging trend of our current era; it is a matter of survival for the sport worldwide. Environmental responsibility is not a task of a specific group of organisations, whether IFs, NOCs, NFs, OCOGs, or the IOC, but rather a primary responsibility of all organisations, stakeholders, and personnel involved in the sporting business. Regardless of the size, budget, or area of operation of each organisation, sustainable development should be a corporate responsibility, included in the strategic planning of each OSO and implemented through the optimization of business practices and processes.

Among the Brazilian National Federations, slightly more than half, 17 NFs (55%), claim to have implemented practices to promote environmental preservation in their headquarters and/or sporting projects within the past three years. When presented with a list of best practices and internal policies aimed at integrating environmental preservation into the organisation's processes, it became evident that there is a noticeable prioritization of awareness actions for employees, rather than investments in the development of internal policies, efforts focused on reducing resource usage, and training employees on environmental preservation in the corporate ambient.

Select below the statement(s) you consider true about the daily operations of the National Federation:

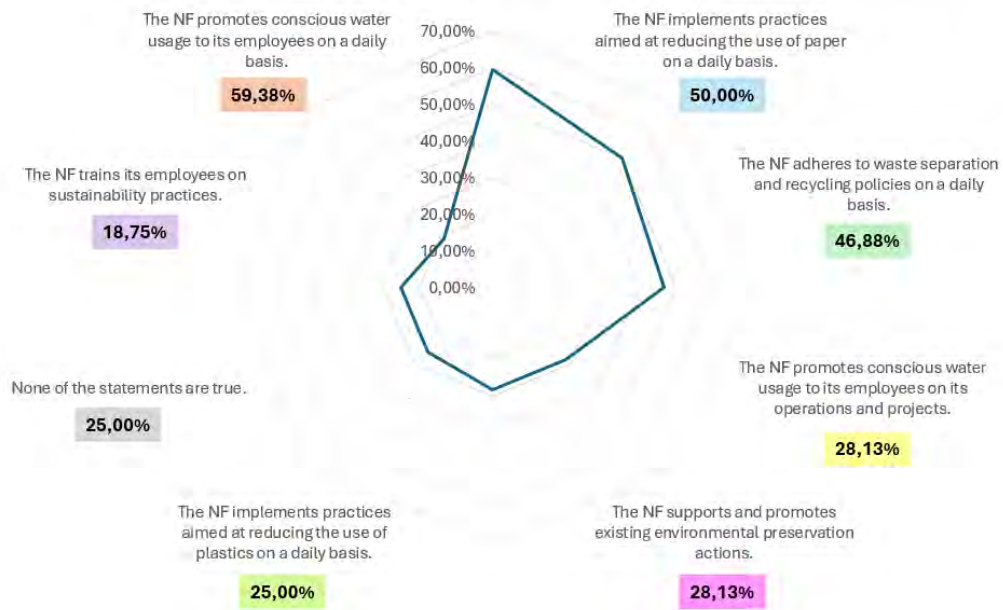


Chart: Forms of adoption of environmental preservation organizational practices by NFs.

Additionally, it is noteworthy that 8 NFs (25%) claim not to have any internal policy aimed at environmental preservation, especially considering that the survey presented examples of practices aimed at reducing the use of plastics, paper, water, waste separation and recycling, among others; despite this, the NFs have not assimilated any of these practices into their organizational routines. It is also interesting to note that only 6 NFs (19%) declared that they train and empower their employees on good practices related to environmental sustainability. Considering that environmental preservation is everyone's responsibility, not investing in the development of effective internal policies and team training, in favor of prioritizing isolated and uncoordinated actions, can be interpreted as a mere intention of self-promotion of the institutional image at the expense of a globally relevant issue. Nowadays, such practices are generally perceived as attempts at greenwashing.

Regarding the engagement of the National Federations' target groups in these implemented practices aimed at promoting environmental preservation and reducing the negative impact of their actions on nature, 8 NFs (44%) considered the engagement of their employees to be low, and only 5 NFs (28%) evaluated the adherence rate as high. These results support the hypothesis that occasional investments in isolated actions, without the proper development of solid internal policies and without the training of employees on the relevance and consequences of the issue under discussion, do not reach the target audience with the expected effectiveness.

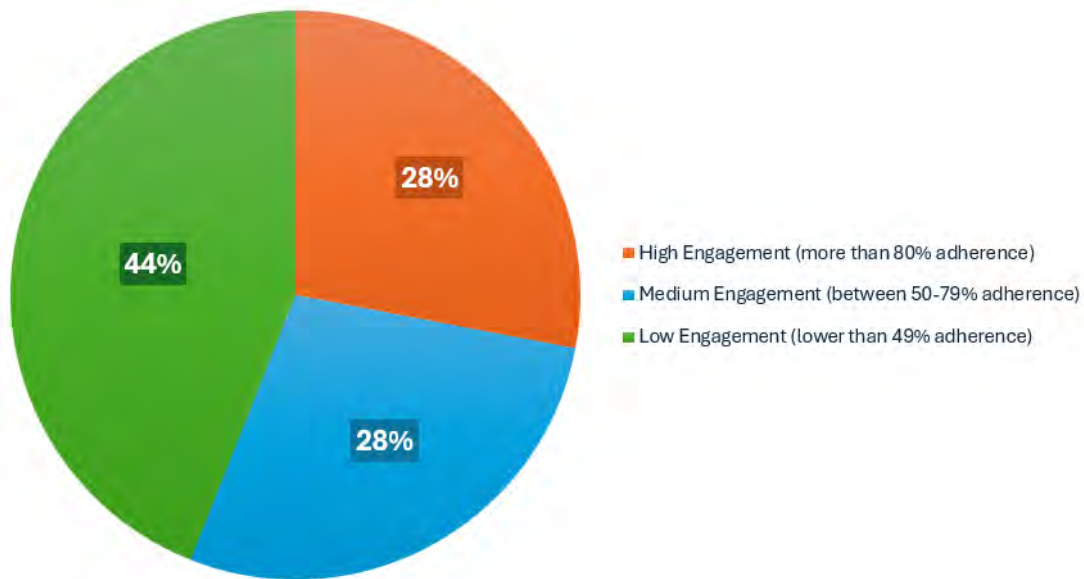


Chart: Engagement of the target audience in National Federation's sustainability practices:

Given the low level of engagement of their target groups, the National Federations were asked about the resources that they consider necessary to ensure the effective implementation of policies and practices aimed at promoting environmental sustainability in their sports organisations. Among the NFs, 13 organisations (42%) claim to have the necessary resources for this purpose, while 7 NFs (23%) state that they do not possess the required resources, and 11 NFs (35%) claim not to know what resources would be necessary to implement a sustainable development. It is also interesting to note that the resources most frequently cited as essential by the NFs are financial resources. That is, in the general perspective of the Brazilian NFs, having financial resources for the adoption of sustainable practices internally is still considered more important and necessary than the engagement of the organisation's leadership, employees, partners, and other involved stakeholders.

4.1.3. Sustainable Development Challenges

Regarding the main obstacles identified by National Federations that challenge the implementation of sustainable practices, it is interesting to note that the factors most frequently cited by these organisations are also aligned with the main resources previously listed as essentials. For 19 NFs (61%), social factors, such as the lack of engagement of their employees, and managerial factors, related to the lack of long-term vision and added value by the leadership of their organisations, are conditions that challenge the internal adoption of environmental sustainability policies. These challenges are also reinforced in the interview conducted on March 13, 2024, with the ASAP Project's Sustainability Manager, Veronika Zemanova, who declared that the greatest obstacle to the expansion of sustainability projects is the resistance by organisations leaders and decision-makers to be convinced to follow sustainability outcomes – even when these policies are being successfully implemented in other organisations and resulting in process improvements and the strengthening of institutional image.

What are the main challenges you identify for implementing sustainability practices internally?

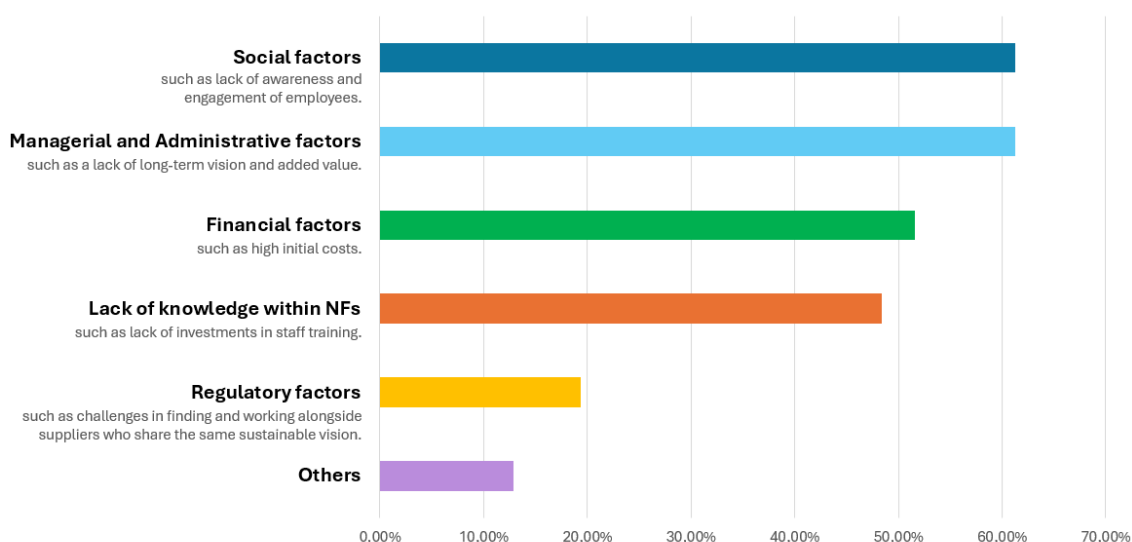


Chart: Common challenges identified by NFs in implementing sustainability practices internally.

Additionally, 16 National Federations (52%) claim that financial factors, such as high costs and investments in environmental preservation practices, are one of the main obstacles. This indicates that sustainability is still often mistakenly seen as synonymous with expenses, without a proper short-term return. At the same time, this perspective contrasts with the hypothesis supported by the IOC's Sustainability Manager, Fabrizio D'Angelo, and the Spain NOC's Marketing & Sustainability Director, Manuel Parga Landa, who, in interviews conducted in March and April 2024, stated that it is actually quite the opposite. Addressing environmental impact through isolated and unstructured initiatives can indeed result in increased costs for the organisations. However, by integrating systematic internal policies, optimizing processes, training employees, and engaging strategic partners, this sustainable vision can lead to cost reductions for the business, competitive advantages over other organisations, increased visibility among commercial partners, and other benefits that are not yet perceived by Brazilian NFs.

4.1.4. Benefits and Risks

From the implementation of internal policies aimed at promoting environmental sustainability in corporations, various short- and long-term benefits can be evidenced. For 25 NFs (81%) in Brazil, sports organisations can benefit from implementing their own, or joining an existing one, sustainability strategy, compared to 6 NFs (19%) who still remain indifferent about the potential benefits of such adoption. Among the NFs that consider potential benefits, 20 organisations (65%) claim to believe that sports organisations can benefit socially, by strengthening their brands among fans and general public, and environmentally, through the conscious use of existing resources, enabling their utilization for future generations. In addition, 13 NFs (42%) claim that sports organisations could benefit operationally, by optimizing outdated internal processes, and 11 NFs (35%) believe that they could benefit commercially, by enhancing the value of their brands among existing and/or new sponsors.

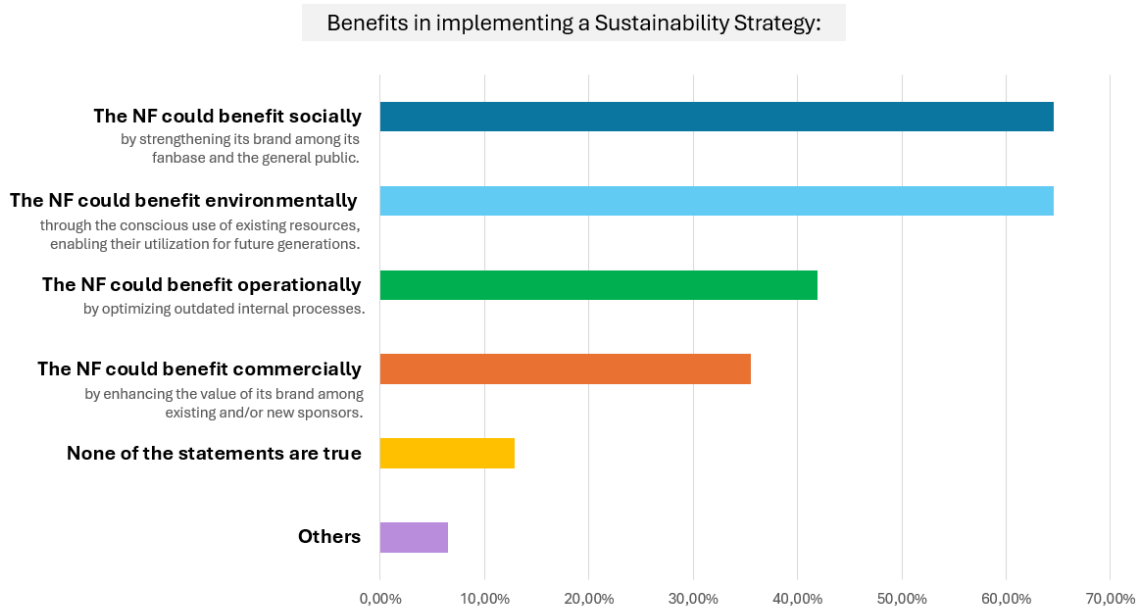


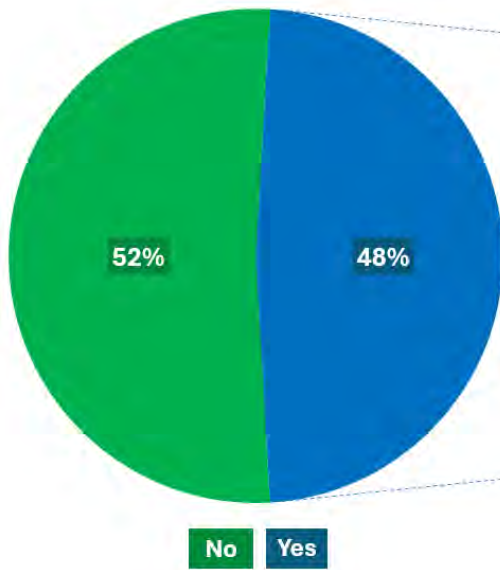
Chart: Benefits for National Federations in implementing a Sustainability Strategy.

It is also interesting to note that when asked about the potential risks inherent in choosing not to adopt practices aimed at environmental preservation in their operations, 13 NFs (42%) claim neither to believe nor disbelieve that sports organisations take risks by not joining an environmental sustainability agenda, showing indifference towards potential risks. Despite the majority considering these risks, 42% is a significant number of NFs that, even in light of the Brazil NOC's Strategic Planning 2021-2024 and the IOC's Olympic Agenda 2020+5 incorporating environmental sustainability as one of their main objectives for the Olympic cycle, still adopt a somewhat indifferent posture towards this agenda in sports, as if the sports segment were exempt from this emerging global concern. On the other hand, as demonstrated by the collected data, the National Federations that do consider these risks do not seem to take adequate precautions or reevaluate how they have been implementing sustainable practices internally, given that these practices have not achieved a high level of engagement from their target audience, leaving them vulnerable to public perception as greenwashing attempts.

4.1.5. Impressions of NFs about the NOC Leadership

To explore the perceptions and how the National Federations in Brazil conceive the role performed by the BOC in the field of environmental sustainability in sport, through its Sustainability Programme, the organisations were asked about their impressions regarding the way the NOC leads the sports bodies linked to the Olympic Movement in Brazil. One year after the launch of the NOC's Sustainability Programme, on March 30, 2023, the small majority of 16 NFs (52%) claim not to know or have heard about the programme. Among the organisations that claimed to be aware of it, a large majority of 25 NFs (81%) declare not to know the framework and main guidelines of the NOC programme – demonstrating, on the other hand, that the BOC is also not communicating its efforts in favor of environmental preservation with sufficient clarity and/or reach to its stakeholders. Illustrating this, 22 NFs (73%) declare that they believe the NOC does not effectively communicate these initiatives and projects.

Do you know, or have you heard about, the Brazil NOC's Sustainability Programme?



Do you know the structure and the main guidelines of this programme?

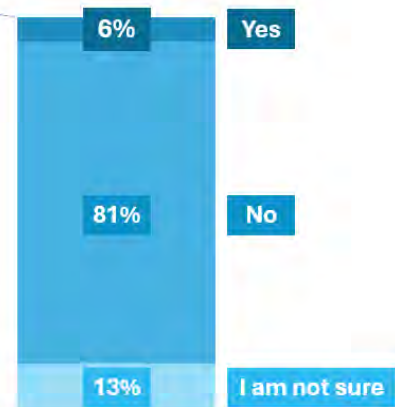
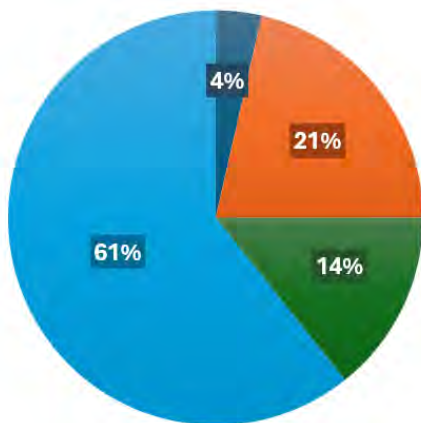


Chart: Knowledge of National Federations about the NOC's Sustainability Programme.

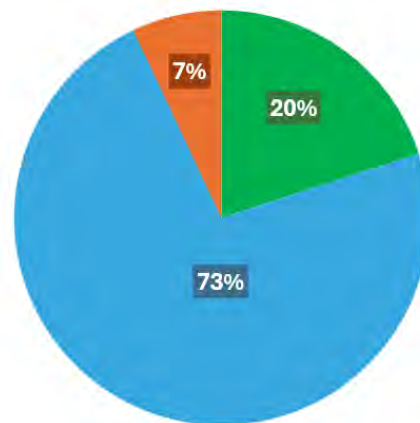
In addition, 17 NFs (61%) declare that they are not aware of the results achieved by the NOC in the environmental preservation agenda and, among the portion of NFs that claim to be aware of these efforts, only 1 NF consider the results achieved to be significant indeed.

How do you evaluate the results achieved by the Brazil NOC through these practices and projects?



- Significant. The results published by the NOC were surprising.
- Average. The results published by the NOC were satisfactory.
- Insignificant. The results published by the NOC were not surprising.
- I wasn't aware of the results.

How would you define the way the NOC communicates its sustainability preservation initiatives and results?



- The NOC communicates effectively
- The NOC doesn't communicate effectively
- I don't follow the NOC on social media platforms

Chart: Impressions about how the NOC communicates its projects and results aimed at environmental preservation.

Finally, when asked about the different forms of support expected from the NOC towards NFs in the environmental sustainability context, 26 National Federations (87%) believe that financial support from the NOC, aimed at the development of policies, procedures, and initiatives, could contribute to the adoption of best practices internally, compared to 16 NFs (53%) who declare that they believe educational support from the NOC, through the organization of courses, seminars, and the sharing of effective management tools aimed at implementing environmental preservation policies, could contribute to the enhancement of the results for the Olympic Movement in Brazil regarding the environmental agenda.

4.2. Investigating Leading Sports Organisations and Sustainability Projects

In order to investigate and gain insights on how leading sports organisations and recognized global sustainability projects addressed the issue of stakeholder engagement in their environmental sustainability agendas, interviews were conducted with key representatives from these organisations. These interviews aimed to elucidate the main challenges encountered and the opportunities generated through their efforts, the key achievements and how they were attained, as well as insights on the importance of establishing strategic partners aligned with the organisation's vision and the lessons learned throughout the implementation of their policies. Enriching perspectives were obtained, and the main data, patterns, trends, and controversies are thematically analyzed below.

4.2.1. Key Challenges and Opportunities Identified

In such a connected and transient global scenario, convincing the general public and decision-makers that new standards and social behaviors have come to stay, and are not just temporary trends, has proven to be a recurring challenge. Regarding the emerging environmental sustainability agenda, this challenge of acceptance prevails in the corporate world as well as in the sports business. From the perspective of the NOCs, the BOC's Sustainability Manager, Carolina Araújo, stated, in an interview conducted on March 13, 2024, that one of the major challenges faced in the initial phase of developing the NOC sustainability strategy was to raise awareness and convince all levels of the BOC that environmental sustainability needed to be perceived and adopted as a non-negotiable conduct by the organisation. According to Araújo (2024), persuading and engaging internal stakeholders has been a slow and gradual task. The low level of adherence of NOC leaders and employees to the online course on environmental sustainability awareness, launched by the Brazil NOC's Promotion of Olympic Values department and focused on staff training, highlights this obstacle. As of March 12, 2024, only 40% of the NOC staff had completed the 4-hour course, which was launched in August 2023.

From the perspective of global sustainability projects, the ASAP Project's Sustainability Manager, Veronika Zemanova, and the Sports for Nature's Engagement Officer, Jana Janotova, are aligned with the hypothesis explored by Araújo (2024), regarding the challenges of convincing the leadership of sports organisations to join the environmental cause. According to Zemanova (2024), who also holds a leadership position in the Czech Olympic Committee, convincing the leadership of smaller OSOs to establish a sustainability strategy, through the management tools provided by the ASAP Project, remains a recurring challenge. In a similar approach, Janotova (2024) mentions the resistance from OSOs' leaders to join to the commitments proposed by the IUCN's Sports for Nature as the main obstacle to the project's expansion, especially because it

presents itself as a secondary framework aimed at environmental preservation in sports, following the United Nation's Sport for Climate Action. Accordingly, it requires finding the right arguments and ways to communicate the benefits of acting for nature, and even then, its acceptance remains slow and gradual.

According to D'Angelo (2024), the IOC also faces this same obstacle due to the resistance from a variety of Olympic sports organisations to invest efforts towards the environmental cause. However, a second challenge was also identified through the interview, related to managing a large number of Olympic stakeholders and ensuring consistent policy implementation, given that factors such as human resources and the level of awareness vary from one organization to another, making it challenging to ensure correct implementation across all organizations. This perspective of the IOC also contributes to the discussion, as the BOC faces this challenge when dealing with National Federations of various sizes, financial resources, human resources, and levels of knowledge about the environmental agenda. To overcome this obstacle, the IOC seeks to periodically monitor the progress and results achieved by its affiliated OSOs through reports and aims to set annual meetings of regional working groups, involving the participation of NOCs and IFs, to update organisations on the work being done and to level the knowledge transfer regionally.

Finally, the Spain NOC's Marketing & Sustainability Director, Manuel Parga Landa, explored, in the interview conducted on March 22, 2024, a third challenge faced by his organisation regarding the real intentions of potential commercial partners seeking to ally themselves with the NOC in the environmental sustainability agenda. Gradually, the Spain NOC has consolidated itself even more as one of the leading organisations in the Olympic Movement to combat carbon emissions and the negative impact in the environment, having been recently awarded with the IOC Climate Action Awards 2023. According to Landa (2024), due to this growing exposure, some Spanish companies have sought to associate their brand with the NOC in the field of environmental sustainability, making it a challenge to distinguish commercial partners who are genuinely committed to environmental preservation from those who are only interested in greenwashing – that is, seeking to promote their institutional images and profit from the association with the Olympic brand in Spain. This should be a point of attention for organisations linked to the Olympic Movement since, as exclusive holders of the rights to use the Olympic brand in their countries, NOCs must be prepared to deal with these different types of offers, which can potentially become harmful to the integrity of their images in the eyes of their fans and society.

4.2.2. Main Achievements Reached

As evidenced by the data collected in the survey conducted with National Federations of Brazil, one year after the launch of the NOC's Sustainability Programme, on March 30, 2023, the initiative is still not widely recognized and valued by the BOC's main stakeholders, with only 48% of the Brazilian NFs declaring to know or have heard about the programme. However, despite the low level of engagement of its external sporting partners and internal workforce with the programme's vision, Araújo (2024) affirms that the NOC has already achieved significant accomplishments during this first year of the initiative.

According to the Sustainability Manager, given the challenges identified previously in this chapter, convincing the NOC top management that the organisation needed to invest resources to (1) measure its greenhouse gas emissions over the past few years, in order to (2) establish a comprehensive baseline of the approximate amount of CO2 tons emitted during this reference period, identifying the main emission sources, and finally, based on these analyses, (3) develop an initial strategy aimed at mitigating,

reducing, and offsetting carbon emissions, was a significant step taken by the NOC in the environmental agenda – especially considering the commitments made by the organisation back in 2020, following the United Nations' Sports for Climate Action, which had not yielded significant results over the past four years, aiming to meet the established goals by 2030.

Regarding the commitments made by the Brazil NOC with partners aligned with the environmental sustainability agenda in sport, such as Sports for Climate Action (S4CA) and Sports for Nature (S4N), Araújo (2024) highlights the engagement of the NOC with these initiatives as a second significant achievement for the organisation and also a motivation for the entity to take the environmental preservation issue more seriously. Supporting this hypothesis, Landa (2024) also states that one of the major accomplishments of the Spanish NOC in the field of sustainability was managing to associate with good partners and develop a transparent relationship based on mutual benefits for both organisations – strengthening the image of their sponsors and generating financial resources for the NOC. According to Landa (2024), environmental sustainability has increased the value of the Olympic brand, leading to a positive perception of the Olympic Movement globally by sponsors and the general public. At the same time, Rakic (2024) mentions how the involvement of the International Biathlon Union with partners engaged in environmental preservation was a significant achievement for the IF, leading the organisation to establish partnerships with public transportation service providers for World Cup events in order to make public transportation options attractive and successful for event attendees, as well as to establish contractual arrangements with sports event organizers to measure their CO2 footprints.

In addition, Zemanova (2024) cites a third example of achievement reached by the Czech NOC and integrated into the action plan proposal of the ASAP Project, which was the creation and consolidation of a regional Sustainability Commission aimed at assessing and evaluating the advancement of affiliated sports organisations in the Czech Republic. To add value to this commission, strategic partners were invited to join the initiative in exchange for a seat on the commission, in order to contribute with insights and evaluations to strengthen the environmental preservation agenda at different levels of the sports sector in the country.

4.2.3. Insights on the Importance of Strategic Partnerships

The discussion with the interviewees on the importance of establishing strategic partnerships provided enriching insights and different perspectives on the topic. These insights addressed aspects related to the importance of knowledge sharing among OSOs, the alignment of goals to be achieved by organisations and their strategic partners, the commercial opportunities and visibility that can be leveraged by the organisations involved, among other hypotheses and conceptions related to establishing these relationships with partners.

According to Landa (2024), in addition to enhancing the positive impacts that the sporting business can generate for the environment, the joint work between sports organisations and strategic partners can bring various other benefits to the entities and the society. He states that, to establish successful strategic partnerships, OSOs must first study these potential clients to understand their goals and strategies, ensuring they are aligned with the vision of the organisation and the Olympic Movement. Understanding these points facilitates the development of joint strategies, creating a win-win proposition that adds value to both parties. Landa also highlights that Olympic sports organisations benefit from having the IOC's Sustainability Strategy as a fundamental guideline to replicate if these OSOs do not have their own – making it easier to identify

the touchpoints between their organisations and potential partners. Supporting this hypothesis, Rakic (2024) adds that, to motivate commercial partners and National Federations to join the IBU's Sustainability Strategy vision, the organisation seeks to adopt tailored and creative approaches to effectively engage these parties, focusing on issues that directly impact them.

Through well-executed joint work, the parties also take advantage of commercial and promotional benefits identified by the interviewed organisations. From the perspective of commercial advantages, D'Angelo (2024) states that the IOC has signed partnership agreements with around 100 organisations, both within and outside the Olympic Movement, to address climate action. The benefits for these partners to join the IOC vision on environmental sustainability include not only a positive impact on the ecosystems but also marketing opportunities and added value to the organisations' brands – attracting the interest of other companies to invest and associate themselves with the Olympic brand in their countries.

On the other hand, from a promotional perspective, Landa (2024) emphasizes the importance of effectively communicate your sustainability efforts, as media attention to this green cause increases the engagement from the fans, general public, and attracts other companies genuinely engaged with the environmental agenda, generating more funding and revenue for the organisation. The interviewee also clarifies how the Spain NOC supports its National Federations by facilitating and providing tools, services, and training opportunities to help them establish sustainability partnerships. The objective is not only for the NOC to benefit, but for the entire Olympic Movement in Spain.

In this regard, Araújo (2024) also reiterates the importance of maintaining a realistic and reasonable approach when sports organisations address environmental issues to the media and society, in order to avoid the attempt to promote an idealized image that may not reflect the internal reality of these organisations.

Finally, Zemanova (2024) states that the mentor-mentee working method adopted by the ASAP Project, which brings together “sustainability-experienced” NOCs with “sustainability beginners” ones to incorporate guidelines and recommendations into integrated sustainability strategies, exemplifies a model of successful partnership aimed at knowledge sharing, which benefits all six participating OSOs and their national sporting systems. It is also worth noting that the promotion of knowledge sharing is not an exclusive benefit to the NOCs participating in the project. By providing a dedicated webpage for promoting sustainability case studies, the IOC offers engaged sports organisations a platform for international recognition, bringing them into the spotlight and promoting them as ambassadors, as Janotova (2024) also suggests. This provides other sports organisations with the inspiration and tools required to take their first steps towards developing a well-structured sustainability strategy, which may eventually attract strategic partners to contribute to its expansion.

4.2.4. Key Lessons Learned

Throughout the development and implementation of their sustainability strategies, the interviewed organisations reported facing various types of challenges, identifying internal and external factors that turned into opportunities and obstacles, and achieving accomplishments of varying significance in the sustainability agenda. In light of this, the main lessons learned by these organisations during this ongoing journey, which contribute to the discussions on the research questions of this study, are explored below.

From the perspective of global sustainability projects, Zemanova (2024) highlights the effectiveness of the mentor-mentee working method adopted by the ASAP

Project in promoting knowledge sharing between smaller organizations, known as mentees, who benefit from adopting and implementing concrete strategies in their organisations with the support of mentors. She also identifies the benefits for mentors, who improve their operations by sharing and learning from each other and from other experts in the field. According to the Sustainability Manager, the mutual collaboration and knowledge sharing between NOCs, the small steps towards sustainability and a long-term thinking focused on engaging partners in this agenda were fundamental for the expansion of the project. Aligning with this perspective, Janotova (2024) recognizes the importance of different approaches and strategies adopted by the Sports for Nature framework to find the right arguments and ways to communicate the benefits of acting for nature to stakeholders. For the IUCN's Engagement Officer, exploring potential competitive advantages for companies and appealing to young people's awareness of climate and nature have proven to be effective approaches to enhance stakeholder engagement in the agenda.

From the perspective of International Federations, Rakic (2024) states that sports organisations may be more motivated to adopt sustainability strategies if the focus is on issues that directly impact them, requiring a tailored and creative approach to engage them effectively. To illustrate examples of concrete practices performed by the International Biathlon Union in seeking to expand engagement with its partners, Rakic suggests that funding and/or bonuses tied to sustainability actions and results can be a more effective approach for engaging National Federations. According to the IF, financial rewards for meeting criteria have proven to be an effective form of recognition along this journey.

With regards to the IOC's approach, it is interesting to note that several types of benefits associated with sustainability initiatives are praised, in addition to different strategies aimed at engaging their stakeholders in this cause. As D'Angelo (2024) suggests, the IOC understands that Olympic sports organisations become more motivated to collaborate on environmental issues when they get recognition from the IOC. According to the Sustainability Manager, this recognition can be ensured by different ways – not exclusively through financial recognition, as suggested by most National Federations in Brazil. To contribute to the expansion of the environmental awareness in sports in Brazil, D'Angelo suggests developing mechanisms for promotional recognition of NOC partners engaged in combating carbon footprints, such as designating NFs as ambassadors for the cause, creating “green sport awards” or “green seals” to be awarded to engaged organisations, among other forms of recognition and endorsement by the NOC, aiming to inspire and motivate National Federations to mobilize.

In alignment with the IOC inputs, Landa (2024) states that one of the main lessons for sports organisations in seeking to engage strategic partners is the development of business strategies that propose value and recognition for both parties. The Spain NOC's Marketing & Sustainability Director also emphasizes the importance of these strategies being supported by structured and systematized actions, in order to avoid the misconception that environmental sustainability necessarily means more costs and expenditures, when it can actually be an opportunity to reduce costs and raise funding opportunities. Similarly to the hypotheses raised by D'Angelo (2024) and Rakic (2024), Landa states that National Federations in Spain are also motivated to adopt sustainable practices through recognition and rewards. Thus, as one of the alternatives suggested by the Spain NOC, he advocates for the creation of a reward system that motivates NFs to improve their sustainability efforts in order to gain public recognition and financial rewards from the NOC – creating a sense of competition among the organisations and motivating them to implement better sustainability practices.

Given the low level of environmental awareness present in the Brazilian sporting scenario, Araújo (2024) emphasizes the importance of taking the first step towards developing a sustainability strategy as the main lesson learned by the BOC throughout this journey. Araújo also recognizes the need to improve the educational aspect of the NOC staff regarding environmental sustainability and to engage National Federations in sustainability efforts to increase the positive impact on nature, considering the international commitments signed by the NOC in this agenda. Finally, the Sustainability Manager also contributes to the research discussions by stating that the next steps to be undertaken by the NOC in the future involve approaching the National Federations of Brazil to assist them in measuring their carbon emissions and supporting the creation of policies for reducing them.

CHAPTER 5

5. RECOMMENDATIONS AND CONCLUSION

The main purpose of the data analysis in the previous chapter is to elucidate the key findings and establish the foundation for preparing recommendations that will help the Brazil Olympic Committee and the National Sports Federations of Brazil to improve their policies, practices, and stakeholder engagement in the context of environmental sustainability in sports in Brazil. The key findings achieved through interviews and survey contributed to answering the research questions of this study, whose recommendations and conclusions are addressed below.

5.1. Recommendations

Challenge no. 1:	The difficulty faced by NFs in developing and implementing effective internal policies focused on environmental sustainability.
Recommendations:	
<ul style="list-style-type: none"> ✓ Regarding the lack of knowledge and guidance of NFs on implementing effective internal policies, the NOC could support these organisations by developing a handbook and/or toolkit tailored specifically for NFs, based on a hands-on approach and accompanied by practical training sessions, aimed at helping them integrate sustainability essentials into the core of their operations by using functional management tools. ✓ To provide even more immediate support, the NOC could benefit NFs by translating existing guides and toolkits, which are already available in English, from the IOC, ANOC, UN, IUCN and ASAP to Portuguese. These frameworks were developed with a focus on OSOs and, therefore, provide a series of recommendations aimed at these organisations for the implementation of sustainability policies. For example, the Cape Verde NOC translated the "ANOC Sustainability Handbook for NOCs" and "IOC Sustainability Case Studies" into the country's native language, which is also Portuguese, to facilitate the adoption of these policies. The Brazil NOC could follow the same approach by making this information available to affiliated organisations on its website. ✓ The NOC could establish a Sustainability Commission, composed of representatives from the NOC itself, NFs, Athletes Commission, Ministry of Environment, key sponsors, among other stakeholders, to discuss, evaluate, and propose guidelines and functional tools for the proper implementation of sustainability strategies in Brazilian OSOs. 	

- ✓ Brazilian NFs that claim to already have a sustainability strategy in force should reassess whether the practices being adopted internally are aligned with a well-structured policy – that is, in order to reducing the implementation of isolated actions without long-term positive impacts and instead promoting integrated actions through the optimization of current processes. These actions should be measurable, evaluated, and improved to maximize positive impacts in both short and long term.
- ✓ On the other hand, NFs that stated they do not have a sustainability strategy in force could be inspired by and replicate the vision of the IOC’s Sustainability Strategy, since its guidelines govern the Olympic Movement in the field of environmental sustainability and serve all OSOs. This approach would be more straightforward and cost-effective. Alternatively, hiring a full- or part-time sustainability field expert could provide more professionalism and expertise to the development of a strategy that is coherent with the reality of each NF.
- ✓ In addition, the NOC could promote the organization of annual forums and/or webinars to ensure proper knowledge sharing and to level the information among NFs that have varying levels of awareness and resources at their disposal.

Challenge no. 2:	The difficulty faced by NFs in enhancing awareness and engagement of internal stakeholders in the environmental preservation agenda.
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Recommendations:

- ✓ NFs could organize educational lectures and/or webinars with the participation of a field expert and/or the Brazil NOC’s Sustainability Manager, using a practical and hands-on approach aimed at training their employees on the vision of the sustainability strategies of the IOC and BOC.
- ✓ In addition, the NOC could share with NFs the e-learning educational course, developed by the NOC itself and aimed at its employees, which addresses the different dimensions of environmental sustainability in the sports context. Among the courses developed by the BOC on the prevention and combat of racism, gender discrimination, match fixing, doping, harassment, and other mandatory courses for the participation of athletes and officials in Olympic and Pan-American Games, the environmental sustainability educational course could also be included as one of these requirements.
- ✓ NFs could increase the added value of environmental sustainability to their target group through an approach focused on issues that directly impact them, such as including carbon emission targets within the scope of teams in charge of organizing sporting events and those working at the NFs’ headquarters. In addition to raising awareness and engagement among employees by rewarding teams that meet the established targets, this approach also provides feedback on the functional areas responsible for the highest emissions and, consequently, their sources of emissions.

Challenge no. 3:	The low effectiveness of NFs and the NOC in reaching commercial partners engaged in the cause of environmental sustainability.
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Recommendations:

- ✓ Brazilian OSOs could attract more interest from investors engaged in the environmental preservation cause, and willing to provide resources toward this goal, by implementing a focus-oriented approach to these potential partners. This involves studying their strategies and objectives to ensure the alignment with the vision of the organisation and the Olympic Movement, thereby facilitating the development of joint strategies and a win-win proposition that adds value to both parties. It is worth mentioning the importance to have, as one of your strategic commercial partners, a company specialized in carbon emission offsetting for events.
- ✓ NFs and the NOC could reduce their carbon footprints by adopting criteria for hiring environmentally responsible suppliers and companies that use recycled or recyclable materials in their products and services. Although regulatory and economic factors can be obstacles to implementing such practices, OSOs can also influence their existing suppliers to optimize their operations environmentally, under the penalty of not renewing their contracts.
- ✓ The NOC could operate even more efficiently by cooperating on certain plans in partnership with the NPC, aiming to optimize logistical operations and minimize the duplication of materials and equipment sent via cargo – considering the editions of Paralympic Games that immediately follow the Olympic Games. To date, this joint operation with the Brazil Paralympic Committee (BPC) has never become concrete and, as a result, both organisations miss out on the financial benefits of a potential partnership.

Challenge no. 4:	The low efficiency of NFs and the NOC in promoting their efforts and results achieved in environmental preservation to stakeholders.
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Recommendations:

- ✓ The NOC has a highly engaged fanbase on its digital platforms. According to the ANOC Digital Accelerator Program, the Team Brazil's digital account reached 2nd place overall in the number of fans among all NOCs, with 5.6 million followers across all social media platforms, and led the ranking in absolute growth among NOCs between November 2022 and November 2023, with a total of 223.1 thousand new followers (Comitê Olímpico do Brasil, 2023). Therefore, the NOC could enhance its communication focused on the environmental preservation actions being adopted, letting people know the roadmap the NOC is following and, consequently, attracting the interest of new fans. In this sense, the NOC could increase its reach and visibility, not only to Olympic sports fans but also to followers who advocate for environmental preservation and demand responsible actions from companies – a trend that has been evident among newer generations.
- ✓ On the other hand, the NOC could also promote the efforts being adopted by NFs in the field of environmental preservation, similar to what the IOC does on its website, aiming to highlight the initiatives of its Olympic stakeholders. By promoting these organisations as its ambassadors for the environmental cause, the NOC would not only give visibility to the engaged NFs but also strengthen the image of the Olympic Movement in Brazil and inspire other organisations, through knowledge sharing, to join the cause and expand the positive results.
- ✓ NFs could also take advantage of their Olympic athletes' images as ambassadors for their environmental-related actions, as the NOC does. In the data analysis of this study, a low number of NFs reported having their own sustainability strategies and nature preservation actions, which even the NOC was unaware of. Therefore, NFs could improve their communication by partnering with athletes who have a large number of followers on social media and also by influencing the

NOC to give visibility to OSOs that seek to follow its sustainability vision, aiming to take advantage of the same benefits as the NOC.

Challenge no. 5:	The difficulty faced by the NOC in engaging Brazilian OSOs to adhere to the cause of environmental preservation.
Recommendations:	
<ul style="list-style-type: none"> ✓ As exemplified by the IOC representative in the previous chapter, the NOC could implement mechanisms to recognize NFs engaged in combating carbon footprints, such as “green sport awards” or “green seals”, aiming to inspire and motivate organisations to join this vision. Considering the diagnosis performed by the NOC’s GET Programme, specifically focused on the sustainability strategies of NFs, the NOC could create a ranking system for these organisations, based on criteria and results of sustainable actions – rewarding the top performers with “green medals”. Thus, the organisations presenting the best results could be publicly awarded with “gold green medal”, “silver green medal”, and “bronze green medal”. In addition to providing visibility and recognition to the engaged NFs, these seals would also provide a competitive advantage for the awarded NFs, making them stand out among other organisations in the eyes of sponsors and investors. For instance, a certain NF stands out for having a sustainability strategy recognized by the NOC, while its competitors do not. ✓ In addition to promotional recognition through “green medals”, the NOC could include financial awards as a form of monetary recognition. This could be implemented by establishing a small grant programme for green sports projects and/or by valuing the GET Programme’s sustainability score within the set of scores that determine the amounts of government funds distributed by the NOC to the NFs. It is worth mentioning that, once carbon emission results are connected to financial rewards, it is essential for the NOC to maintain transparency in the evaluation criteria, taking into account different specificities of each NF, such as larger organisations vs smaller ones, indoor sports vs outdoor sports, and other characteristics that compose OSOs in Brazil. ✓ In terms of financial aspects, the NOC could establish requirements for the acceptance of project proposals from NFs to be considered for government funds. This recommendation aligns with the hypothesis advocated by the IBU representative in the previous chapter, which focuses on issues that directly impact the NFs' operations. By including requirements aimed at environmental preservation, such as mandatory carbon emissions reports for sporting events or mandatory implementation of educational activities on environmental awareness in youth sporting events, the NOC would enhance the engagement of NFs in this cause. ✓ Finally, the NOC could also include the e-learning educational course on environmental sustainability in sports as one of the mandatory courses for the participation of officials from NFs in Olympic and Pan-American Games. This course could be incorporated into the list of other mandatory courses, as determined by the BOC's Commitment Agreement in force for sporting events. 	

5.2. Action Plan Proposal

Actions	Lead	Priority (low to high)	Level of Decision	Resources Needed	Timescale	Success Factors	Feasibility (low to high)
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Translate existing toolkits, handbooks, and IOC case studies for NFs	NOC	Medium	NOC Head of Olympic Values	Budget, Time	Nov 2024	Time	High
Create a Sustainability webpage on NOC website to publish supporting documents	NOC	High	NOC Head of Communication	Tech & Equipment	Nov 2024	Clear Communication	High
Develop tailor-made toolkits and handbooks for NFs	NOC	High	NOC Head of Olympic Values	HR, Tech & Equipment, Time	Feb 2025	Time, Clear Communication, M&E	High
Hire a p/t sustainability expert to lead the measurement of CO2 emissions and the sustainability strategy	NFs	High	NFs Board	Budget, HR	Feb 2025	Funding, Commitment of Board	Medium
Measure annual carbon emissions and establish a starting baseline	NFs	High	NFs Board	HR, Tech & Equipment, Time	Jun 2025	Time, Employee Engagement, M&E	High
Develop a strategic plan for emissions reduction and offsetting at the office and in sporting events, as listed below:	NFs	High	NFs Board	Budget, HR, Tech & Equipment, Time	Aug 2025	Commitment of Board, Employee Engagement, Comprehensive Training, Clear Communication, M&E	Medium
1. Share the structure of the e-learning course on environmental sustainability in sports with NFs	NOC	High	NOC Board	N.A.	Sep 2024	Clear Communication, M&E	High
2. Promote the course to athletes and employees	NFs	High	NFs Board	N.A.	Sep 2024	Clear Communication, Employee Engagement, Comprehensive Training, M&E	High
3. Include the course as a mandatory requirement for the participation of athletes and officials in events	NOC	High	NOC Board	N.A.	Sep 2024	Commitment of Board, Clear Communication, Employee Engagement, M&E	High
4. Organize webinars and/or workshops for the training of employees and athletes	NOC, NFs	Medium	NOC Head of Olympic Values, NFs Board	Budget, HR, Tech & Equipment	Feb 2025	Funding, Commitment of Board, Clear Communication, Employee Engagement, Comprehensive Training, M&E	Medium
5. Seek alternative solutions to reduce the use of low-durability resources in the supply chain	NFs	High	NFs Board	N.A.	Mar 2025	Employee Engagement	Medium
6. Promote the reuse of resources	NFs	High	NFs Board	N.A.	Mar 2025	Clear Communication, Employee Engagement, Comprehensive Training, M&E	Medium
7. Reevaluate internal processes to digitize tasks and reduce the use of consumables	NOC, NFs	High	NOC PMO, NFs Board	Tech & Equipment	Apr 2025	Clear Communication, Employee Engagement, Comprehensive Training, M&E	Medium
8. Include sustainability background check in supplier hiring processes	NOC, NFs	High	NOC & NFs Board	HR, Tech & Equipment	May 2025	Commitment of Board, Partners Engagement	Low

9.	Seek to hire suppliers that use recycled or recyclable materials	NOC, NFs	High	NOC & NFs Head of Procurement	N.A.	May 2025	Commitment of Board, Partners Engagement	Low
10.	Seek to influence existing suppliers to reduce the use of polluting resources	NOC, NFs	High	NOC & NFs Head of Procurement	N.A.	May 2025	Clear Communication, Partners Engagement	Low
11.	Include CO2 emissions reports in contracts with new suppliers	NOC, NFs	High	NOC & NFs Board	N.A.	May 2025	Clear Communication, Partners Engagement, M&E	Low
12.	Adopt multi-use visual identities in events to reduce the use of PVC-based plastic materials	NOC, NFs	High	NOC & NFs Head of Marketing	N.A.	Jun 2025	Partners Engagement	Medium
13.	Seek to integrate operations with NPC to minimize resources duplication in Olympic & Paralympic Games	NOC	High	NOC Head of International Operations	HR	Jul 2025	Partners Engagement	High
14.	Ensure the practicality and measurability of any new actions to be implemented	NOC, NFs	High	NOC PMO, NFs Board	N.A.	Aug 2025	Comprehensive Training, M&E	Medium
	Establish a Sustainability Commission to evaluate guidelines and objectives intended for OSOs	NOC	Medium	NOC Board	Budget, HR, Time	Aug 2025	Funding, Commitment of Board, Clear Communication, Partners Engagement, M&E, Recognition	Medium
	Develop an effective communication plan encompassing digital media and activations in events	NOC, NFs	High	NOC & NFs Head of Communication	Budget, HR, Tech & Equipment, Time	Aug 2025	Clear Communication, Partners Engagement	High
	Create sponsorship packages for clients	NOC, NFs	Medium	NOC & NFs Head of Marketing	Budget, HR	Sep 2025	Clear Communication, Partners Engagement	High
	Seek new commercial partners aligned with the agenda for the development of joint strategies	NOC, NFs	High	NOC & NFs Head of Marketing	Time	Sep 2025	Time, Clear Communication, Partners Engagement, Recognition	High
	Establish criteria for funding NFs' projects to promote the inclusion of environmental preservation actions	NOC	Medium	NOC Board	Budget, Time	Nov 2025	Funding, Commitment of Board, Clear Communication, Partners Engagement, M&E, Recognition	Low
	Establish criteria for financially rewarding NFs' projects engaged in the environmental cause	NOC	Medium	NOC Board	Budget, Time	Nov 2025	Funding, Commitment of Board, Clear Communication, Partners Engagement, M&E, Recognition	Low
	Implement a reward system for NFs engaged in the agenda through the creation of "green medals" seals	NOC	High	NOC Board	N.A.	Dec 2025	Clear Communication, Partners Engagement, M&E, Recognition	High
	Publish NFs case studies on the NOC website as a	NOC	High	NOC Head of Communication	N.A.	Dec 2025	Clear Communication,	High

form of promotion and knowledge sharing						Partners Engagement, M&E, Recognition	
Incorporate sustainability strategy and carbon emissions targets into the OSO strategic planning	NFs	High	NFs Board	Budget, HR, Tech & Equipment, Time	Dec 2025	All listed above	Medium

5.3. Study Limitations

Among the obstacles identified throughout the study, three factors emerged as limitations for the deepening of data collection and analysis. First, the selection process of the interviewees followed technical and strategic criteria, aiming to reach OSOs of different scopes, including IOC, NOCs, IFs, and OCOGs, as well as globally recognized Sustainability Projects. In the field of OSOs, it was possible to reach three out of the four types of organisations intended, excluding only the perspective of OCOGs. Representatives from the Sustainability departments of the Paris 2024 and Los Angeles 2028 Organizing Committees were contacted, but neither organisation responded to the invitations for participation. Therefore, the area of action of this stakeholder within the Olympic Movement could not be investigated.

In addition to this factor, the short timeframe and the limited availability in interviewees' agendas, given the imminence of the Paris 2024 Olympic Games, also proved to be factors that hindered the progress of data collection and analysis for the study. Since the Brazilian NFs, international OSOs, and sustainability projects found themselves at different stages of planning for Paris 2024, some approaches had to be postponed. This consequently reduced the time available for interpreting all the collected data, impacting other aspects of this research's progress.

Finally, it is important to highlight that further consultations and analysis are required to contribute with new perspectives to the discussions, as environmental preservation is not solely the responsibility of OSOs and sustainability projects but of all stakeholders in the sports industry. Therefore, it is intended to consult a focus group composed of sustainability-experienced NFs and sustainability-rookie NFs, engaged sponsors and athletes, representatives from the national government and the Ministry of Environment, among other parties, to further enrich the discussions, evaluations, and proposals for the action plan towards sustainable development throughout the Olympic Movement in Brazil.

5.4. Conclusion

Throughout the development of this research study, it became evident that the debates on how to integrate nature preservation with the core operations of sports organisations involve different perspectives from these institutions. Although the concept of sustainable development is not entirely new, discussions about the social responsibility of OSOs, regarding the carbon footprints of their actions on the environment, have strongly emerged in recent years and have gained significant attention in the news – particularly, considering the promises for more sustainable editions of the Olympic Games and, on the other hand, the increasingly harmful impacts on the ecosystems of host cities.

Through the knowledge review and the interviews conducted to support this research study, it was possible to verify that, although not at the forefront of sustainable development, the Brazil NOC has taken important initial steps to optimize its operations, reduce its carbon footprints, and fulfill international commitments in the field of environmental preservation. On the other hand, it is also evident, through the results obtained from the survey conducted with the National Sports Federations of Brazil, that

these organisations do not yet demonstrate the engagement and efforts expected by the NOC and the IOC in the context of environmental preservation in sports. Therefore, by fulfilling their social roles and implementing the recommendations proposed by this study, the NOC and NFs can enhance engagement and results in favor of environmental sustainability through well-structured and effective policies, taking into account that these OSOs have the necessary resources and tools to expand their actions in this cause.

The data obtained through interviews also provided enriching insights from sustainability-experienced organisations and practical examples of approaches that have proven effective in their countries in combating climate change. It is worth mentioning that, despite the knowledge sharing and lessons learned have been extracted from discussions with organisations at the forefront of sustainable development and presenting human development indicators higher than those of Brazil, it is true that, regardless of what can or cannot be replicated in other countries, all stakeholders in the sports industry are capable of reducing their carbon emissions, whether through conventional or more creative means.

Finally, we believe that the findings and recommendations presented in this study can contribute to the improvement of the structures of the NOC and NFs in Brazil, particularly in the area of nature preservation advocated by the IOC's Olympic Agenda 2020+5 and the Brazil NOC's Strategic Planning 2021-2024. Even though actions aimed at reducing carbon emissions may seem to yield insignificant results, if each organisation does its part, we can ensure that future generations will have access to the same resources that we have, and had, available – for the preservation of nature and to ensure the survival of sports.

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APPENDICES

Survey Questionnaire

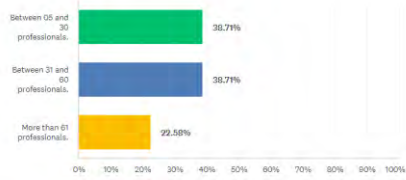
Perceptions of National Sports Federations about their own Olympic Sport Organisations:	
1	Approximately how many professionals (employees, service providers, interns, volunteers) does your National Federation have working on a daily basis?
2	Does your National Federation have Environmental Sustainability as one of the goals in its Strategic Planning for 2021-2024?
3	Does your National Federation have a structured and implemented Sustainability Programme focused on environmental preservation?
4	If your National Federation doesn't have a Sustainability Programme, is there an ongoing internal planning for its development?
5	Over the past 3 years, has your National Federation implemented practices to promote environmental preservation in its routine and/or sports projects?
6	If the answer above is "Yes", please list up to 3 implemented practices:
7	If the answer to question number 5 is "Yes", how was the engagement of the National Federation's target audience evaluated in these practices?
8	Do you believe that your National Federation has the necessary resources to implement practices focused on environmental sustainability?
9	Could you list the resources you believe are necessary to implement practices focused on environmental sustainability?
10	Select below the statement you consider true about the daily operations of the National Federation:
11	What are the main challenges you identify for implementing sustainability practices internally, as listed in the question above?
12	Do you believe that your National Federation could benefit from implementing a Sustainability Programme?
13	Select below the statement you consider true about implementing a Sustainability Programme:

14	Do you believe that National Federations take risks by not implementing a Sustainability Programme?
Perceptions of National Sports Federations about the Brazil Olympic Committee:	
15	Do you know, or have you heard about, the Brazil NOC's Sustainability Programme?
16	Do you know the structure and the main guidelines of this programme?
17	Do you know the main practices and projects of the NOC focused on environmental sustainability?
18	If your response above is "Yes", how do you evaluate the results achieved by the NOC through these practices and projects?
19	Please select below the statement that you believe best defines how the NOC promotes its actions related to sustainability and environmental preservation:
20	Finally, please select below the forms of support from the NOC that you believe could contribute to the implementation of better sustainability practices in your National Federation:

Survey Results

Approximately how many professionals (employees, service providers, interns, volunteers) does your National Federation have working on a daily basis?

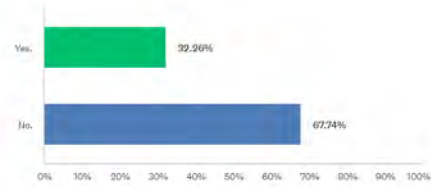
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	
Between 05 and 30 professionals.	38.71%	12
Between 31 and 60 professionals.	38.71%	12
More than 61 professionals.	22.58%	7
TOTAL		31

Does your National Federation have Environmental Sustainability as one of the goals in its Strategic Planning for 2021-2024?

Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes.	32.26%	10
No.	67.74%	21
TOTAL		31

Does your National Federation have a structured and implemented Sustainability Programme focused on environmental preservation?

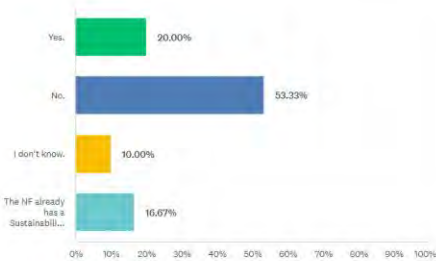
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes.	16.13%	5
No.	83.87%	26
TOTAL		31

If your National Federation doesn't have a Sustainability Programme, is there an ongoing internal planning for its development?

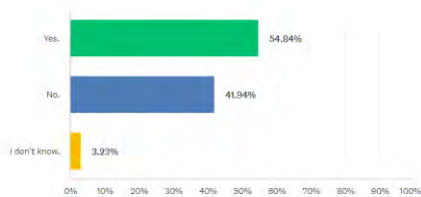
Answered: 30 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes.	20.00%	6
No.	53.33%	16
I don't know.	10.00%	3
The NF already has a Sustainability Programme.	16.67%	5
TOTAL		30

Over the past 3 years, has your National Federation implemented practices to promote environmental preservation in its routine and/or sports projects?

Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes.	54.84%	17
No.	41.94%	13
I don't know.	3.23%	1
TOTAL		31

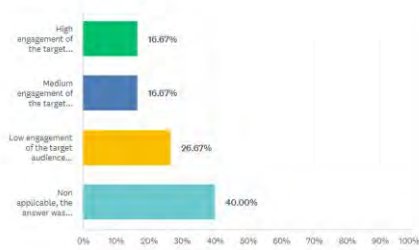
Caso a resposta acima seja Sim, favor listar até 3 práticas implementadas:

Answered: 15 Skipped: 16

ANSWER CHOICES	RESPONSES	
Prática adotada nº 1:	Responses 100.00%	15
Prática adotada nº 2:	Responses 73.33%	11
Prática adotada nº 3:	Responses 46.67%	7

If the answer to question number 5 is "Yes", how was the engagement of the National Federation's target audience evaluated in these practices?

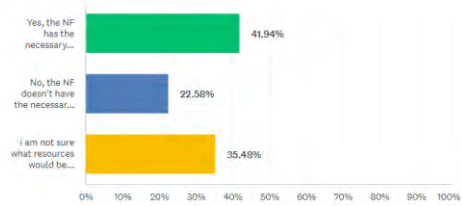
Answered: 30 Skipped: 1



ANSWER CHOICES	RESPONSES	Count
High engagement of the target audience (adherence more than 80%).	16.67%	5
Medium engagement of the target audience (adherence between 50-79%).	16.67%	5
Low engagement of the target audience (adherence lower than 49%).	26.67%	8
Non applicable, the answer was "No".	40.00%	12
TOTAL		30

Do you believe that your National Federation has the necessary resources to implement practices focused on environmental sustainability?

Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	Count
Yes, the NF has the necessary resources.	41.94%	13
No, the NF doesn't have the necessary resources.	22.58%	7
I am not sure what resources would be necessary.	35.48%	11
TOTAL		31

Você poderia listar os recursos que acredita serem necessários para implementar práticas voltadas à sustentabilidade ambiental?

Answered: 15 Skipped: 18

RESPONSES (15) TAGS (4)

Search Responses Filter: by tag

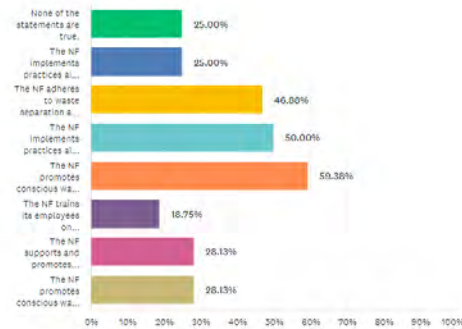
Showing 15 responses

- Human Resources Leadership** Colaboradores conscientes, liderança comprometida
27/03/2024 12:51 [View respondent's answers](#) [Add tags](#)
- Human Resources** Conscientização dos colaboradores
25/03/2024 23:19 [View respondent's answers](#) [Add tags](#)
- Human Resources Leadership** Cultura empresarial e visão de longo prazo
25/03/2024 22:46 [View respondent's answers](#) [Add tags](#)
- External Support NOC Support** RH e apoio do COB
25/03/2024 22:41 [View respondent's answers](#) [Add tags](#)

Recursos humanos e patrocinadores

Select below the statement you consider true about the daily operations of the National Federation:

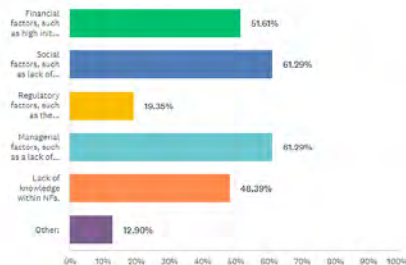
Answered: 32 Skipped: 1



ANSWER CHOICES	RESPONSES	Count
None of the statements are true.	25.00%	8
The NF implements practices aimed at reducing the use of plastics on a daily basis.	25.00%	8
The NF adheres to waste separation and recycling policies on a daily basis.	46.00%	15
The NF implements practices aimed at reducing the use of paper on a daily basis.	50.00%	16
The NF promotes conscious water usage to its employees on a daily basis.	59.38%	19
The NF trains its employees on sustainability practices.	18.75%	6
The NF supports and promotes existing environmental preservation actions.	26.13%	9
The NF promotes conscious water usage to its employees on its operations and projects.	26.13%	9
Total Respondents: 32		

What are the main challenges you identify for implementing sustainability practices internally, as listed in the question above?

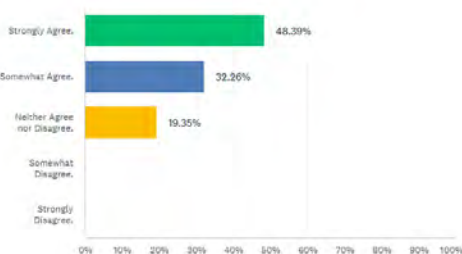
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	Count
Financial factors, such as high initial costs.	51.61%	16
Social factors, such as lack of awareness and engagement from employees.	61.29%	19
Regulatory factors, such as the challenges of finding and working alongside suppliers who share this sustainable vision.	19.35%	6
Managerial factors, such as a lack of long-term vision and added value.	61.29%	19
Lack of knowledge within NFs.	48.39%	15
Other.	12.90%	4
Total Respondents: 31		

Do you believe that your National Federation could benefit from implementing a Sustainability Programme?

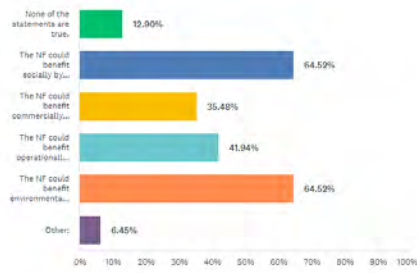
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES	Count
Strongly Agree.	48.39%	15
Somewhat Agree.	32.26%	10
Neither Agree nor Disagree.	19.35%	6
Somewhat Disagree.	0.00%	0
Strongly Disagree.	0.00%	0
TOTAL		31

Select below the statement you consider true about implementing a Sustainability Programme:

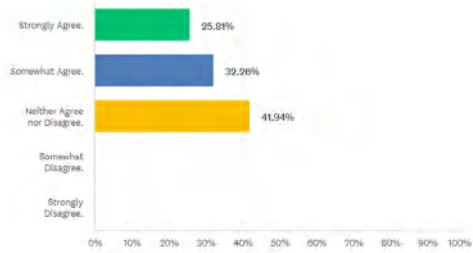
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES
None of the statements are true.	12.90% 4
The NF could benefit socially by strengthening its brand among its fanbase and the general public.	64.52% 20
The NF could benefit commercially by enhancing the value of its brand among existing and/or new partners and sponsors.	35.48% 11
The NF could benefit operationally by optimizing outdated internal processes.	41.94% 13
The NF could benefit environmentally through the conscious use of existing natural resources, enabling their utilization for future generations.	64.52% 20
Other:	Response 6.45% 2
TOTAL	Response: 31

Do you believe that National Federations take risks by not implementing a Sustainability Programme?

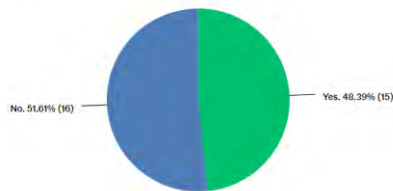
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES
Strongly Agree.	25.81% 8
Somewhat Agree.	32.26% 10
Neither Agree nor Disagree.	41.94% 13
Somewhat Disagree.	0.00% 0
Strongly Disagree.	0.00% 0
TOTAL	31

Do you know, or have you heard about, the Brazil NOC's Sustainability Programme?

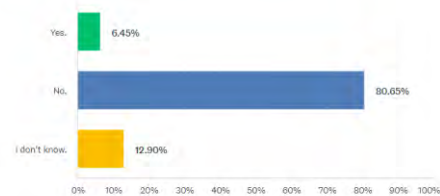
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES
Yes.	48.39% 15
No.	51.61% 16
TOTAL	31

Do you know the structure and the main guidelines of this programme?

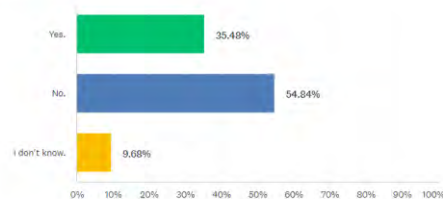
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES
Yes.	6.45% 2
No.	80.65% 25
I don't know.	12.90% 4
TOTAL	31

Do you know the main practices and projects of the NOC focused on environmental sustainability?

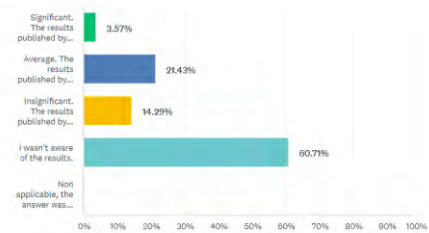
Answered: 31 Skipped: 2



ANSWER CHOICES	RESPONSES
Yes.	35.48% 11
No.	54.84% 17
I don't know.	9.68% 3
TOTAL	31

If your response above is "Yes", how do you evaluate the results achieved by the NOC through these practices and projects?

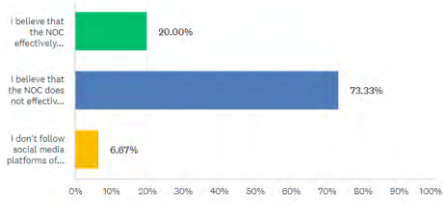
Answered: 28 Skipped: 5



ANSWER CHOICES	RESPONSES
Significant. The results published by the NOC were surprising.	3.57% 1
Average. The results published by the NOC were satisfactory.	21.43% 6
Insignificant. The results published by the NOC were not surprising.	14.29% 4
I wasn't aware of the results.	60.71% 17
Non applicable, the answer was "No".	0.00% 0
TOTAL	28

Please select below the statement that you believe best defines how the NOC promotes its actions related to sustainability and environmental preservation:

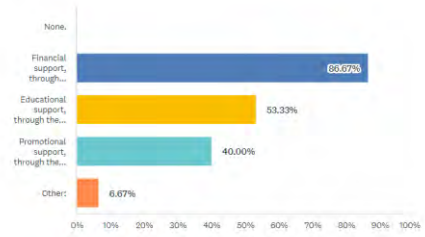
Answered: 30 Skipped: 3



ANSWER CHOICES	RESPONSES
I believe that the NOC effectively communicates its actions focused on sustainability and environmental preservation.	20.00% 6
I believe that the NOC does not effectively communicate its actions focused on sustainability and environmental preservation.	73.33% 22
I don't follow social media platforms of the NOC.	6.67% 2
TOTAL	30

Finally, please select below the forms of support from the NOC that you believe could contribute to the implementation of better sustainability practices in your National Federation:

Answered: 30 Skipped: 3



ANSWER CHOICES	RESPONSES
None.	0.00% 0
Financial support, through investment in sustainability and environmental preservation actions.	86.67% 26
Educational support, through the promotion of courses and seminars on sustainability.	53.33% 16
Promotional support, through the promotion of actions being adopted by NFs on the sustainability agenda.	40.00% 12
Other:	Responses 6.67% 2
Total Respondents: 30	