Assignment 1

Oxford Brookes University - School of the Built Environment
Module: PAM7009 Applied Research Methods

Research Proposal

Environmental Sustainability in nature-based Olympic Water Sports – an Analysis of different Approaches and Stakeholder Perspectives

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(excluding references, tables, table of contents, title, lists, appendix)

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1 Introduction

“Water is essential for human survival […] [and the amount of] freshwater that can be used at any time is constrained by economic, technological and environmental reasons, it is essential that existing water resources be managed efficiently and equitably in terms of both quantity and quality” (Tortajada, 2001, p.1). The worlds hydrological cycle is uniquely coupled with human activity as human activity is inseparable from the natural water system. Therefore, sustainability of water resources has become a critical issue for the future.

At the same time, the “[s]ports industry is receiving an imperious call to reduce their negative influences associated with their events, operations and facilities on the natural environment” (Almenhali, 2019, p.ix). Additionally, the International Olympic Committee (IOC) announced as the fourth recommendation in their Agenda 2020 a vision that includes sustainability in all aspects of the Olympics. One issue to address within this problem are water quality solutions and the impacts of Olympic Water Sports (OWS) on the aquatic environment. International OWS federations have already developed numerous initiatives, strategies and programs to address environmental issues with the goal of reducing “their ecological footprint and using the power and popularity of sport as a means to promote and raise environmental awareness” (Almenhali, 2019, p.ix).

The proposed research seeks to better understand the status-quo of current environmental sustainability efforts of international OWS federations and therefore assesses further improvement recommendations through analysing numerous approaches of already implemented environmental sustainability strategies and actions plans of different OWS federations and consulting key stakeholders with the help of semi-structured interviews.

2 Preliminary Literature Review

Scientific literature focusing on sports and environmental sustainability has steadily grown over the last years. Several authors (Byrnes & Dunn, 2020; Wilson & Millington, 2020) have studied the complex relationship between sport and the aquatic environment especially regarding recreational purposes and touristic sport activities.

A study by Moon et al. (2021) examined “how sustainability can be defined in the context of international sport federations and […] how international federations implement social and environmental sustainability practices“ (Moon et al., 2021, p.1). A similar research by McCullough et al. (2016), focused on understanding “the increased similarities of environmental sustainability efforts […] [and used] examples from various sport organizations and leagues to classify” (McCullough et al., 2016, p.1040) these efforts.

Other researchers like Trendafilova et al. (2014, p.10) “have studied the role of stakeholders in sustainability efforts, concluding that through the engagement of stakeholders, organizations can better understand and elucidate the different dimensions of the environmental challenges they face”. Simultaneously, according to Trendafilova et al. (2014) the literature in sport and environmental sustainability is inadequate and there is a significance lack in the academic research interested in this topic. Further research from Mallen et al. (2020, p.368) confirms that “despite a wealth of ES literature in the field of management, very little is understood about ES within sport management“.

As can be seen from a first preliminary literature analysis, previous studies have focused on professional sports leagues, national associations, and international Olympic committees, whose motivation may be different to those of international OWS federations. Professional sports leagues engage in environmental sustainability activities for risk management or PR purposes, whereas international OWS

federations may use sustainability-related activities to show leadership as the world governing body of their sport and having a deep understanding and commitment towards aquatic sustainability. Furthermore, previous researchers draw attention to the currently limited research efforts in sustainable sports. Consequently, the purpose of the proposed research is to examine sustainability reports, actions plans and goals of international OWS federations and organisations to get a deeper understanding of current practices and future improvement areas.

3 Research Goal and Significance

3.1 Research Goal

The research will bring attention to the aspect of sustainability in the OWS environment which has received little attention in the academic literature yet but should be considered and analysed by sport managers, teams and federations. It will review the concepts and frameworks that are currently being used by different international OWS organizations. “These include the role of institutions, effectiveness of legal frameworks, participation of stakeholders, contribution of water development projects” (Tortajada, 2001, Preface) and the consideration of environmental issues.

The environmental footprint of OWS is significant and poses a challenge for the environmental sustainability movement by its nature by having a massive footprint, consuming large amounts of materials to construct sports equipment and facilities and other related infrastructure, consuming heavy quantities of water and energy and producing waste.

The dissertation will provide an overview of the scientific and scholarly work on environmental sustainability with special regards to nature-based OWS and water sustainability. Examples of environmental strategies, programs and action plans developed and adopted by international OWS federations will be analysed and the current state of water sustainability efforts will be discussed. The study intends to advance the understanding on the contribution of the OWS community towards environmental and aquatic sustainability. Additionally, the study will give room for further research and serves as a starting point for innovations and revision of current practices and increases the depth of knowledge of the OWS community towards environmental and aquatic conservation, protection and sustainability. The findings should encourage more sports federations to take concrete steps to improve their actions within the field of environmental sustainability by implementing best practices.

Simultaneously managing social, economic, and environmental sustainability performance is a critical challenge. Therefore, the dissertation will primarily be focused on environmental issues.

The following hypothesis will be tested during the research process:

"OWS can transform, enhance and positively influence the current practices in environmental sustainability management and awareness raising in sports federations."

The following nature based OWS will be assessed and consulted:

(1) Rowing and coastal rowing

(2) Sailing

(3) Canoe and white-water canoe

(4) Surfing

(5) Open water swimming

This research has two primary research questions:

(1) Which environmental sustainability practices have international OWS implemented?

(2) How may the environmental sustainability knowledge and understanding of key stakeholders inform future sustainability efforts in OWS?

Specific objectives cover the following areas:

(1) Identification of the current state, quality, gaps and best practices of environmental sustainability actions and engagement within OWS

(2) Determination of key stakeholders' views and attitudes on environmental sustainability issues within OWS

(3) Discussion and recommendation of future improvement areas for OWS federations

The findings of this research are limited to the OWS sector context and the level of generalisability outside the sport context may be limited.

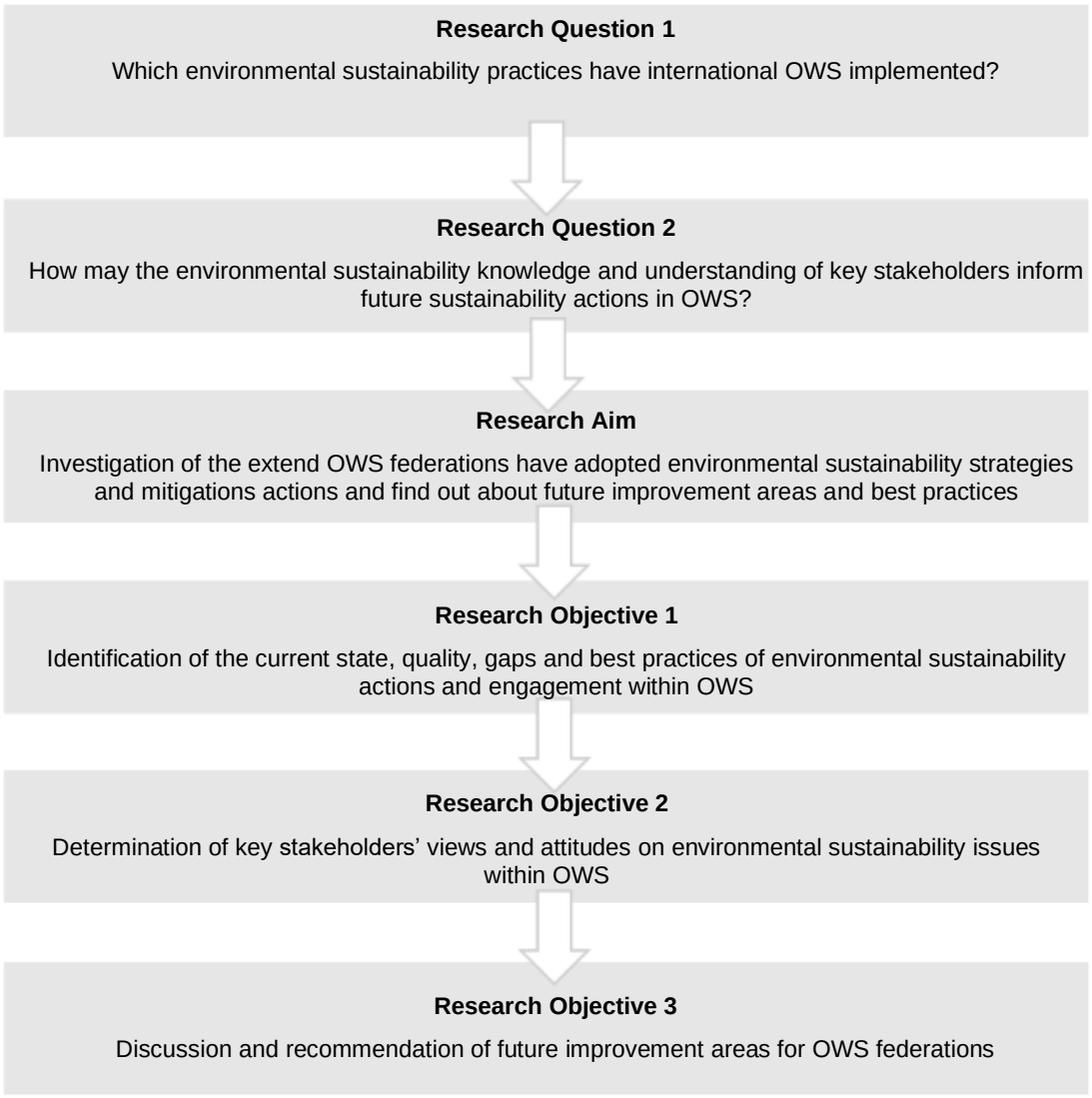

Figure 1: *Research Aims and Objectives*

3.2 Significance of the Research

Since sports federations "first came into being at the beginning of the 20th century, international sport federations […] have evolved from volunteer-run associations to highly professional organizations" (Moon et al., 2021, p.1). Although the primary task is to successfully manage and evolve the sports internationally, "many are becoming increasingly business-oriented and […] at the same time, they are starting to pay more attention to sustainability issues" (Moon et al., 2021, p.1). International sports federations increasingly focus on operating in a sustainable way and implementing sustainability strategies in their daily business. The expectations of athletes, spectators and stakeholders towards sports organisations to demonstrate their commitment to environmentally sustainable actions have never been greater and lead to increased pressure to manage impacts of sports and sports business activities and contribute to environmentally sustainable development. "In a global society that is increasingly aware of ecological degradation caused by businesses, sustainable sports offer society a platform from which to address these issues and contribute to a sustainable future" (Trendavilova et al., 2014, p.14).

"[A]ny sport that takes place in the natural environment inevitably involves genuine risks" (McClure, 2017, p.77). Human activities that are conducted on or in water resources affect the water resource management, river and lake ecology and the water quality for example through pollution and silt sedimentation. According to Byrnes & Dunn (2020, p.3), OWS-related "environmental impacts are varied and include physical, chemical and biotic factors, which although primarily impact aquatic biomes also include impacts to atmospheric and terrestrial zones". The OWS federations recognized these impacts on the natural environment and developed strategies to address the most relevant issues. Therefore, "[t]here has been a continuous increase in the number and scope of environmental initiatives adopted by professional sport

teams" (Trendavilova et al., 2014, p.11) and OWS organizations are doing first steps in proactively addressing the negative environmental impacts of their operations. Mitigation actions like building stronger relationships with key stakeholders, increasing organizational legitimacy, raising awareness and taking on the challenge of contributing to a more sustainable water environment are executed.

Nevertheless, the international implementation of initiatives related to environmental sustainability is relatively low and, in most cases, kept to a limited extent. Environmental efforts of OWS federations are still in the developing stage and there is a demand for greater transparency. Therefore, there is a need to analyse the status-quo and further develop recommendations for engagement with environmental sustainability initiatives and programs in the OWS sector. Decision makers have to further understand the concept of sustainability and its importance especially in the OWS sector. The current efforts on environmental issues in OWS are expected to continue and expand due to growing environmental awareness, social values, expectations of stakeholders, governmental interventions and mandatory verification and certification requirements. OWS organizations need to develop extensive partnerships with industry experts, environmental organisations, and relevant stakeholders to continue and intensify their efforts. As McCullough et al. (2016, p.1040) states, "[t]he socially significant role of sport necessitates a response to environmental issues by sport personnel" and has the power to significantly shape and build awareness for environmental protection in all groups of society.

4 Research Methods

The research methods will be kept to qualitative methods. Primary as well as secondary data will be used during the research process. The dissertation uses both scientific literature as well as selected publications of international OWS federations and key informant interviews to give an answer to the research questions.

4.1 Analysis of Environmental Sustainability Strategies of OWS

As a first analysis step, secondary data will be collected through a multiple case study by screening the official OWS websites, official documents, sustainability reports and strategies, annual reports, and other public and non-public documents produced by OWS federations to analyse the current state of the implementation of environmental sustainability in each OWS. Additionally, a sustainability strategy assessment framework will be developed and different environmental sustainability strategy approaches from the different OWS federations will be compared with the help of the assessment framework. The assessment framework will for example assess if the following actions are undertaken by the OWS federations:

(1) implementing sustainability pilot events;

(2) partnering with NGOs;

(3) partnering with sustainability consultancies;

(4) creating a sustainability committee;

(5) and launching a comprehensive sustainability strategy with at least one full-time sustainability manager.

The analysis will provide insights into international federations' recent environmental sustainability behaviours and will enable to draw up a "sustainability ladder" of sports federations' responsibilities, which can be used to assess the degree to which they have embraced sustainability. Subsequently, strengths and weaknesses of the individual approaches will be elaborated to draw on further improvement suggestions.

4.2 Expert Interviews

To demonstrate the recent understanding and awareness, semi-structured interviews will collect and analyse primary data from at least 10 key stakeholders of nature-based OWS (table 3). Each expert interview will be conducted in a timeframe of around 45 minutes. The qualitative data analysis will help to gain a better understanding of the necessary future implementation improvements. First contacts have been made via the online platform LinkedIn and interview dates are about to be scheduled. The full list of interviewees, their role as well as the significance, objectives and knowledge can be found in table 3 in the appendix. Anonymity will be guaranteed to the participants to assure sincerity of the answers.

The interviews will we conducted in a semi-structured format with prepared guidance questions but also giving the interviewees the opportunity to state open-ended answers. After the interview completion, the audio voice recordings will be trans scripted into written format to qualitatively analyse the answers with the help of coding concepts, themes, and manual methods to identify key improvement areas.

The interviews will be conducted with people involved or in charge of OWS sustainability programs and with individuals familiar with the dynamics of sustainability in the context of international water sports to ascertain valuable responses regarding sustainability challenges, best practices, trends and required competencies. The interviewees should have at least one of the following knowledge areas:

(1) Member or athlete of a national or international OSW federation;

(2) Extensive (aquatic) environmental sustainability knowledge;

(3) Environmental impact assessment and management;

(4) (Sustainable) sports business or sports (events) management;

(5) NGO partner or key stakeholder of an OWS federation.

5 Research Design

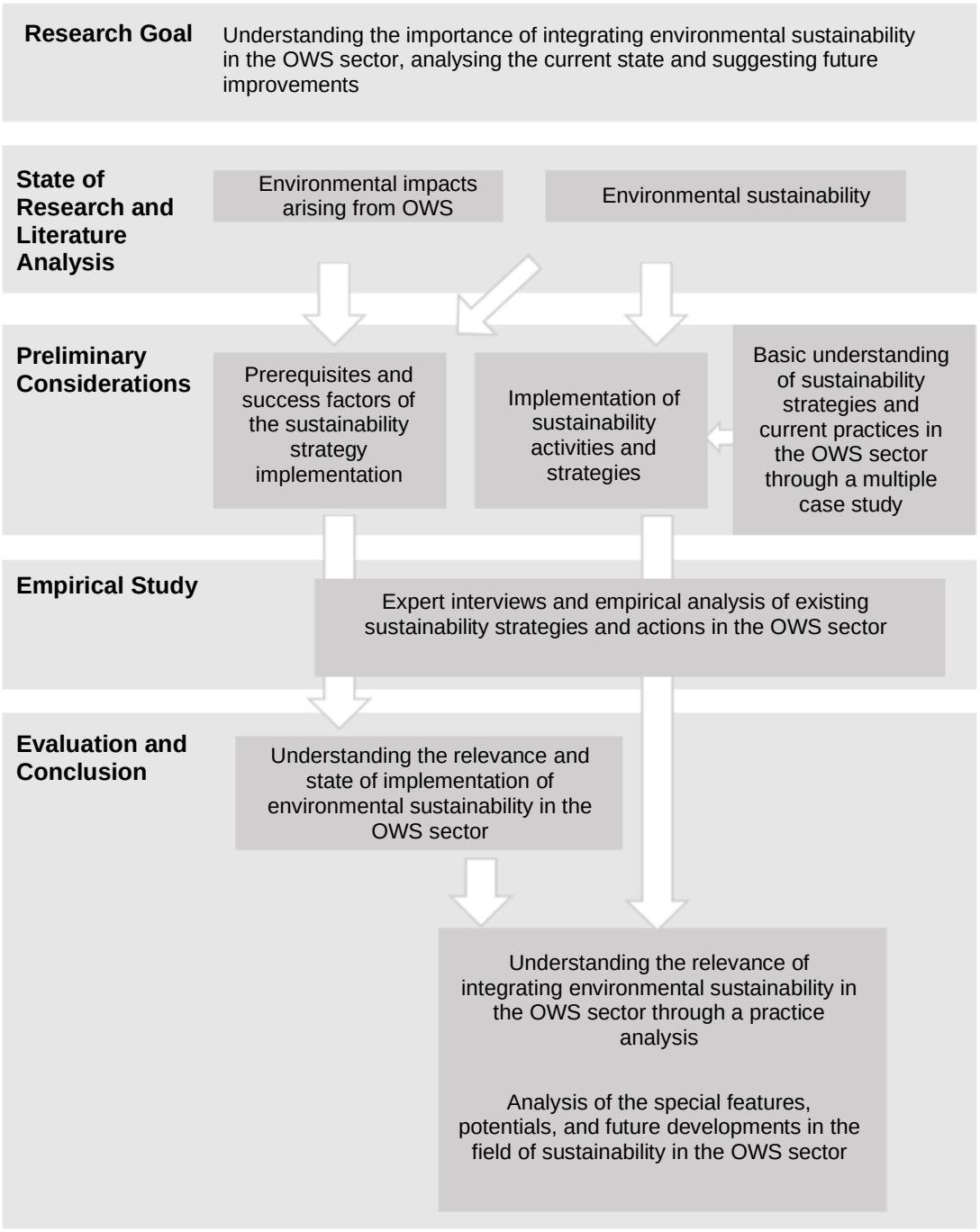

Figure 2: *Research Design*

A first outline of the indicative contents can be found below:

6 Research Schedule

Table 1: *Research Timetable and Programme of Work*

Phase		Subtasks	1	2	3	4	5	6	7	8	9	10	11	12
1	**Research proposal**	First literature review	In advance											
		Setting up Citavi Project												
		Title discussion with a supervisor												
		Writing proposal												
		Supervisor feedback first draft												
		Revision of first draft												
		Submission of research proposal												
2	**Literature review**	Finding keywords												
		Further literature research and review												
		Summarizing key findings												
		Completing literature review												
3	**Expert interviews**	Questionnaire development												
		Feedback supervisor												
		Recruiting participants												
		Conducting expert interviews												
		Transcribing interview data												
		Interview data analysis												
		Results summary												

		Follow-up interviews (if needed)													
4	**Writing dissertation**	Setting-up word document and formatting													
		Introduction													
		Literature review summary													
		Tables, figures, and diagrams													
		Main text and chapters													
		Conclusion													
		Reference list													
		Finishing first draft													
		Feedback supervisor													
		Adjustments and finishing second draft													
5	**Proof-reading**	First proof-reading													
		Adjustments													
		Second proof-reading													
		Adjustments													
		External proof-reading													
		Adjustments and finalization													
6	**Submission**	Submission													

7 Reference List

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8 Appendix

Table 2: *Draft Chapter Contents and Objectives*

Chapter	Content	Objectives
List of Abbreviations List of Figures List of Tables	All relevant lists	Overview of all relevant lists
Abstract	Summarizing the major aspects of the research in a short paragraph which includes 1) the overall purpose of the study and the research problem investigated; 2) the research design; 3) the major findings or trends found in the analysis; 4) and a summary of interpretations and conclusions.	The informative and descriptive abstract elaborates upon each major aspect of the research and should help the reader decide on the relevance of the rest of the paper.
1 OWS as a Catalyst for Environmental Sustainability 1.1 Object of Research and Objectives of the Study 1.2 Relevance of the Study in Science and Practice 1.3 Current State of Research 1.4 Procedure and Methodology	Establishing the scope, context and significance of the research being conducted by summarizing the research problem. Giving the current state of research and stating the purpose of the work in the form of the research problem supported by a hypothesis and a set of research questions. Furthermore, including an explanation of the methodology and giving a roadmap of the research paper.	Providing a concise, engaging and well-written introduction and establishing a context by providing a review of current practices and literature. Summary of prior studies about the topic to lay the foundation for understanding the research problem, explaining how the study addresses the specific research gaps or other deficiencies of the literature and indicating the broader theoretical and empirical

		contributions and implications of the research being conducted.
2 The Concept of Aquatic Sustainability 2.1 Environmental Sustainability 2.2 Aquatic Sustainability 2.3 Strategies of maintaining Aquatic Sustainability	Summarizing current understandings and background information about the research topic. General review of the foundational research literature.	Demonstrating basic understanding of the research problem and topic being investigated and promoting confidence in the overall quality of the analysis and findings. Providing the essential context needed to understand the research problem and its significance.
3 Current State of Environmental Sustainability Initiatives in OWS 3.1 Motivation, Tasks and Dimensions 3.2 Prerequisites 3.3 Implementation 3.4 Potentials 3.5 Problems and Limitations	Literature review and summary of the current state including the motivation, tasks and dimensions as well as prerequisites, the implementation, potentials and current problems.	Giving an in-depth overview of the research topic underpinned and informed by a thorough literature review.
4 Analysis of Environmental Sustainability Approaches of OWS 4.1 Environmental Sustainability Strategies 4.2 Potentials and Best Practices 4.3 Problems and Limitations 4.4 Discussion	Report on the results and findings of the expert interviews and empirical study of sustainability strategies, best practices and sustainability action plans. Analysis of the results including the analysis of potentials and problems as well as a critical discussion of the analysis and research process.	Reject or confirm the hypothesis of the research. A concise analysis of the results helps understanding the research problem from within, break it into pieces and view it form various perspectives.
5 Conclusion	Interpretation and description of the significance of the findings in relation to what was already known about the research problem being investigated. Explaining new understandings, findings and insights that	Persuasively and succinctly restate the main arguments of the research. Explanation on how the research enhanced the understanding of the research problem. Demonstrating critical thinking and

	emerged during the research process. Content being connected to the introduction and drawing back to the research questions and hypothesis.	developing logical synthesis of the findings. Presents how the research findings revealed and helped filling the existing research gaps. Evaluating on possible implications in other study areas. Furthermore, highlighting the importance of the research and how it can contribute to understanding the research problem withing the study field.
6 Bibliography	List of all books, scientific researches, scholary articles, websites and other sources used during the research and writing process.	Giving credits to authors and researchers whose work was consulted during the research and writing process.
7 Appendix 7.1 Supplementary Illustrations 7.2 Supplementary Information 7.3 Information on the Interviews 7.4 Lists of Questions for the interviews 7.5 Transcriptions of the Interviews 7.6 Coding of the Expert Interviews 7.7 Content Analysis of the Interviews	Including all relevant non-essential supplementary research data, material and information that supports the research.	Giving additional information without breaking up the narrative or distracting from the main purpose of the research. The appendix may be helpful in providing a more comprehensive understanding of the research being conducted.
8 Declaration on Honour	Declaration of honour	Confirming that the research was written independently without external help and that only sources being cited and indicated were used.

Table 3: *Research Interviews*

Interviewees	Sport	Organization	Role	Significance, Objectives and Knowledge	Date
Martin Helseth	Rowing	Alesund Roklub / Norwegian National Team Rowing / Big Plastic Pledge	Athlete / Olympian	Olympian European Climate Pact Ambassador Big Plastic Pledge Ambassador Spends his spare time diving and picking marine trash along the coast along the Norwegian Coast. Deeply cares about plastic pollution of our waterways and uses his position as an internationally recognized and successful athlete to fight for it, take true action and raise awareness.	tbd
Roman Röösli	Rowing	Swiss National Team Rowing / University of Oxford	Athlete / Olympian	World Rowing Kafue Rowing Center Amassador Student of Water Science, Policy and Management at the University of Oxford Competed in the Boat Race and is an Olympian	tbd
Richard Schmidt	Rowing	German National Team Rowing	Athlete / Olympian	World Rowing Kafue Rowing Center Amassador Athlete representative of the German National Team	tbd
Maike Diekmann	Rowing	South African National Team Rowing	Athlete / Olympian / Hydrogeologist	World Rowing Kafue Rowing Center Amassador Hydrogeologist with expertise	tbd
Ronja Fini Sturm	Rowing	German National Team Rowing	Athlete / Olympian	Olympian and environmental activist	tbd
Charlotta Nwajide	Rowing	German National Team Rowing	Olympian / Geographer	Geography student and Olympian and environmental as well as social activist	tbd

Leonie Beck	Open Water Swimming	SVW 05 / German National Team Swimming	Athlete / Olympian	Open Water Swimmer and Olympian Experiences several bad water conditions (especially during Rio Olympics 2016)	tbd
Thomas Lurz	Open Water Swimming	SVW 05 / German National Team Swimming	Former Athlete / Olympian	Former internationally successful Open Water Swimmer and Olympian Has experience with marine pollution and water quality issues in open water swimming	tbd
Marc Leske	Sailing / Rowing	German Rowing Federation	Athlete and Skipper	Former rower and currently working as a skipper	tbd
Saskia Sills	Wind Surfing	Big Plastic Pledge British National Team Sailing	Athlete	Big Plastic Pledge Ambassador B.Sc. Geography and passionate about sustainability in sport British National Team Sailor aiming towards Paris 2024	tbd
Hannah Mills	Sailing	Big Plastic Pledge British National Team Sailing	Athlete and Founder	Double Olympic Champion Founder of Big Plastic Pledge and working on sustainability in sports	tbd
Simon Lewis	No sport	Team Planet Limited	Environmental and sustainability advisor	Sustainability expert with 25 years' experience working internationally with clients and organisations across private, public and not for profit sectors. 15 years of engagement with sustainability in the sports sector includes advising on Olympic Games and International Sports Federations to design sports-oriented campaigns. Team Planet Limited: supports sports organisations to deliver best-in-class sustainability objectives	tbd

Brian McCullough	No sport	Texas A&M University	Associate Professor	Associate Professor of Sport Management and Director of the Laboratory for Sustainability in Sport at Texas A&M University | Co-Director of the Sport Ecology Group	tbd
Lena Recktenwald	No sport	Sky Media	Media	Sustainable sport enthusiast and working in digital marketing and advertising at Sky Media Using media channels to catalyse sustainability in sport and the community	tbd
Clemens Feigl	No sport	everwave	CEO & founder	CEO & founder of everwave, a water clean-up company Everwave is a social enterprise that is dedicated to protect rivers and the ocean from plastic waste and to promote a more sustainable life-style, in order to protect aquatic environments as precious habitats, food resources and economic regions.	tbd
Oliver Bettzieche	Rowing and Canoe	European Championships Munich 2022	Sports Director	Sports Director Rowing and Canoe Sprint for the European Championships in Munich 2022	tbd
Vera Seidl	Rowing and Canoe	European Championships Munich 2022	Project Coordinator	Project Coordinator Rowing and Canoe Sprint for the European Championships in Munich 2022	tbd
Tbd	Surfing	Tbd	Athlete	Tbd	tbd
Tbd	Canoe	Tbd	Athlete	Tbd	tbd
Tbd	White Water Canoe	tbd	Athlete	Tbd	tbd